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Impact of Demographic Variables in the Development of Teachers' Self-Efficacy Beliefs in the Context of Saudi Arabia

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Abstract

Teacher self-efficacy is one of the important variables to bring change in students' learning. The current study aimed to assess teachers' self-efficacy beliefs on four sub-scales; namely, classroom management, persistent behaviour, classroom anxiety and professional mastery, in the context of Saudi Arabia. The key objective of the study was to determine teachers' self-efficacy beliefs on these sub-scales in relation to gender, age, professional qualification, level of teaching, and job experience. A random sample of 168 male and 106 female teachers was selected from two public and two private schools in Jeddah. A Teachers' Self-Efficacy Beliefs scale developed by Shaukat (2011) was administered to collect data from teachers; the results for this study reported .89 overall reliability of the scale, .72 for classroom management, .73 for persistent behaviour, .66 for classroom anxiety and .76 for professional mastery. Data were analysed using the t-test and ANOVA to determine the impact of demographic variables on the four sub-scales of self-efficacy beliefs. Results showed significant differences between the self-efficacy beliefs of male and female teachers; BA, MA and PhD qualified teachers; primary and elementary and secondary school teachers; and public and private teachers with regard to classroom management, persistent behaviour, classroom anxiety and professional mastery. This study has possible implications for policy makers and teacher educators.

Keywords: locus of control, persistent behaviour, classroom anxiety, professional mastery, teachers

1. Introduction

Teacher self-efficacy is a significant feature of teacher quality that makes a teacher determined to bring about change in students' learning (Pendergast, Garvis, & Keogh, 2011; Lee, Cawthon, & Dawson, 2012). Teacher self-efficacy is described as the "teacher's belief in his or her own ability to organise and execute courses of action essential to successfully achieving the specific teaching tasks in specific situations" (Tschannen-Moran, A. Hoy & W. Hoy, 1998, p. 207). Teachers with a greater level of self-efficacy demonstrate effective teaching strategies to make a difference in students' academic scores and to better assist all students to reach their actual potentials. Teachers with a high sense of self-efficacy tend to apply novel ideas, and are more enthusiastic in trying innovative approaches to make a difference in students' learning (Shaukat & Iqbal, 2012). Research studies have reported that teacher self-efficacy is connected with teacher determination and perseverance when encountering learning difficulties (Mojavezi & Tamiz, 2012). Teachers with strong self-efficacy beliefs use more humanistic, constructive and teacher-based approaches to deal with students' problems (Woolfolk, Rosoff, & Hoy, 1990). Literature has also confirmed that teachers with high levels of self-efficacy tend to apply more individualised instruction and are more likely to use collaborative learning tasks (Tschannen-Moran & Hoy, 2001). Pertinent international literature self-efficacy reviews are mainly of western origin (Lin & Gorrell, 2001; Shaukat, 2011), so it is for this purpose that an investigation of teacher self-efficacy beliefs in the context of Saudi Arabia is important. This study will check in a very different cultural context whether there are significant impacts of demographic variables (gender, age, experience and level of teaching) in the development of self-efficacy beliefs of in-service teachers. It is a pioneer research in the Saudi Arabian context which will provide implications for policy leaders and teachers in the adoption of useful strategies to increase self-efficacy beliefs of teachers to make a difference in students' learning.

2. Background

2.1 Self-efficacy Beliefs

The self-efficacy construct has generally been hypothesised within Bandura's (1994, 2002) social cognitive learning theory. Bandura stated that human behaviour is driven by the interface of two kinds of expectations: self-efficacy expectation and outcome expectancy. The former refers to "peoples' judgments of their capability to undertake and execute successfully a specific task in a specific context, and the latter including judgments about the likely consequences that this performance would bring about" (Mojavezi & Tamiz, 2012, p. 483). According to Bandura (1977) self-efficacy beliefs are the significant pillars of human action. Self-efficacy beliefs have an impact on an individual's way of thinking, their feeling and their performance in their daily life. They also provide a regulatory principle on how to empower people to exercise some effect over how they are living their lives. These beliefs play a dynamic role in the attainment of knowledge construction on which skills are established and regulate interest for the probable results of one's hard work.

2.2 Teacher Self-efficacy Beliefs

The current study pertains to teacher self-efficacy beliefs, defined as teacher's self-confidence in his or her ability/capability to bring about change in students' learning (Bandura, 1995). Ashton and Webb (1986) documented that highly efficacious teachers tend to be more systematised, demonstrate greater skills of instruction, ask probing questions and provide better responses to students having difficulties on academic tasks. Teacher self-efficacy has four sources: mastery experiences, verbal persuasion, vicarious experiences and emotional arousal. The four sources undertake a procedure of cognitive processing that determines how information will be weighted to effect the anticipated teaching task. Mastery experiences are assumed to have the greatest powerful influence as they indicate one's performance in a teaching situation (Mulholland & Wallace, 2001). Successful performance by an instructor leads to improved self-efficacy, whereas a failure leads to a decrease in self-efficacy beliefs. As teachers tend to develop mastery experience that lead to accruing growth in teacher self-efficacy, they rely on these as memories and explanations of related earlier teaching experiences (Tschannen-Moran, A. Hoy & W. Hoy, 1998). The second means of increasing self-efficacy beliefs is through the vicarious experiences that are described as observing and perceiving others executing the tasks (Tschannen-Moran, & Hoy, 2007). This mode of developing self-efficacy allows the acquirement of new actions without practising a trial and error process (Pajares, 2002). Social persuasion is a third source of developing an individual's self-efficacy beliefs. People with substantial persuasive style play a significant role in the development of one's self-efficacy beliefs (Pajares, 2002). Physiological states such as anxiety, strain, and mood also relate to self-efficacy beliefs. Stress and anxiety affect performance such as achievement or failure, and self-efficacy beliefs may be weakened after experiencing and suffering from negative feelings and uncertainties about one's capabilities. These negative perceptions provide the reasons for inadequate performance. Self-efficacy beliefs can be enhanced by reducing the negative physiological states. Individuals have the ability to adopt thinking strategies and self-efficacy beliefs, which in turn can dynamically affect physiological states (Nayak & Rao, 2000; Pajares, 2002).

2.3 Dimensions of Teacher Self-efficacy

Teachers with higher levels of locus of control tend to manage classrooms in more effective ways. Emmer and Hickman (1991) mentioned that classroom management efficacy is a distinct kind of teacher efficacy. In relation to locus of control, efficacy is understood as the degree to which teachers consider that factors under their control have a greater influence on teaching results than do situational factors out of their control (Ajzen & Madden, 1986). Therefore, specific locus of control research studies can produce items relating to classroom management. Rose and Medway (1981) have suggested the use of the Teacher Locus of Control Scale, which requires teachers to define responsibility for student achievement and failure as within or beyond the control of the teacher.

Teacher persistent behaviour is described by the "tendency to persist steadfastly, until successful, in the many specific courses of action that comprise teaching". A persistent teacher may, for example, attempt many different teaching approaches to present a new concept or skill and persevere with these until the students demonstrate understanding and mastery" (Shaukat, 2011, p. 124). A teacher's belief about determined behaviour may lead to the adoption of a trial-and-error method when confronted with stimulating circumstances until a positive outcome is attained (Pigge & Marso, 1997). Haberman (1995) has revealed that persistent teaching behaviour is essential for the development of high expectations in students and that it elevates teaching quality. Teacher persistence assists to improve effective teaching, development of teaching skills and efficacy beliefs and openness to students' diversity.

Teacher anxiety is a significant contributor to personal teaching efficacy. Persons with robust self-efficacy beliefs can employ some control over stressful circumstances. The insight of a lack of control is connected to augmented levels of anxiety (Endler, Speer, Johnson, & Flett, 2000). It has been found that self-efficacy and test anxiety have a robust negative association (Pintrich & DeGroot, 1990). Research has revealed that teachers with high levels of nervousness are less verbally helpful to their students and inclined to assign low grades (Clark, 1970). On the other hand, teachers with low nervousness show more promise to accomplish tasks and experience job gratification and better relations with their colleagues. Professional mastery is described as “self-respect through classroom achievement” (Shaukat, 2011, p. 125). Self-respect is assumed to be the degree of the respect a teacher has for his or her own value, reached by self-reflection on previous success with similar classroom activities. By applying extra effort, and with deeper inclination and a robust locus of control, the belief acts as an upsurge in attainment (Schunk, 1982), which results in improved professional self-respect.

Hence, it is crucial to know the self-efficacy beliefs of in-service teachers to match their teaching to the needs of the classroom, and what they have to do to maximise change for the better in a particular teaching situation. As far as Saudi Arabia, and in particular Jeddah, is concerned, the self-efficacy of in-service teachers has rarely been examined. This study will also investigate the impact of demographic variables (gender, age, qualification, experience and teaching levels) in the development of teachers’ self-efficacy beliefs in this context. As a result, this study will be able to provide guidelines to policy makers and teaching administrators about what teaching strategies they need to adopt to increase the self-efficacy of teachers.

3. Research Hypotheses

This study tests the following hypotheses:

- 1). There is a significant difference in self-efficacy beliefs of male and female teachers on the four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery.
- 2). There is a significant difference in self-efficacy beliefs of private and public teachers on the four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery.
- 3). There is a significant difference in self-efficacy beliefs of BA, MA and PhD teachers on the four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery.
- 4). There is a significant difference in self-efficacy beliefs of primary, elementary and secondary school teachers on the four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery.

4. Methodology

4.1 Research Design

This study utilised descriptive research with a questionnaire survey type methodology.

4.2 Sample

A simple random sampling technique was used for this study. Sampling was based on school lists in Jeddah. Initially all private and public schools were identified and then a random number table was used to select randomly two schools from each set of public and private schools. The four schools selected have comparable socio-demographic. All selected schools were well reputed as ranked by the Ministry of Education in Saudi Arabia.

4.3 Participants

The researcher conducted this study with a sample of 168 male and 106 female teachers. All teachers either had BA, MA or Ph.D. degrees and were associated with the four private and public schools. Ages of the teachers ranged from 20 to 60 years. Teachers had working experience ranging from 10 years to 30 years and were teaching at primary, elementary and secondary school levels. See Table 1 for demographic information.

Table 1. Demographic information about participants

Variables		N	%
Gender	Male	168	61.3
	Female	106	38.7
Age	20-30	76	27.7

	30-40	134	48.9
	40-50	56	20.4
	50-60	8	2.9
	10 years	64	23.4
	15 years	83	30.3
Working experience	20 years	54	19.7
	25 years	42	15.0
	30 years	32	11.7
	Primary	100	36.5
Level of teaching	Elementary	90	32.8
	Secondary	84	30.7
	Private	244	89.1
Nature of school	Public	30	10.9
	Bachelor	226	82.5
Academic qualification	Masters	42	15.3
	PhD	6	2.2

4.4 Instrument

Demographic Information. Part one of the survey questionnaire required information about the demographic variables of the participants (e.g., gender, age, highest level of qualification, experience in teaching and level of teaching).

Teacher Self-Efficacy Scale. Shaukat, (2011) developed a Likert-type scale to determine teachers' self-efficacy beliefs using a five point response scale to rate each of 24 items (1 indicated 'strongly disagree' and 5 indicated 'strongly agree'). The scale used in the earlier research measured the four sub-scales of classroom management, persistent behaviour, classroom anxiety and professional mastery. The original scale statistics for Alpha reliability were: locus of control .72 (6 items), persistent behaviour .73 (7 items), classroom anxiety .56 (4 items) and professional mastery .76 (7 items). The overall reliability of the 24 item scale was .89. Table 2 describes information about the mean, standard deviation and number of items of each of the four sub-scales. (See appendix for scale statements).

Table 2. Reliability of composite scale and sub-scales of Teacher Self-Efficacy

Scale	Mean	Standard Deviation	Number of items	Cronbach Alpha
Classroom management	12.15	3.96	6	.72
Persistent behaviour	14.98	4.55	7	.73
Classroom anxiety	10.98	3.18	4	.56
Professional mastery	15.60	4.67	7	.76
Composite scale	53.72	13.51	24	.89

4.5 Data Collection

Official permission was received from the authorities concerned with the schools in Jeddah and the nature of the study was discussed with them. After obtaining ethical approval from the school heads, a meeting was arranged between school teachers and the researcher seeking their formal consent to collect the data. The school heads were also informed about the unidentified nature of the survey and were assured that their responses would be kept secret and not shared with anyone. Additionally, they were asked to specify their level of agreement or disagreement with respect to the items selected to determine four of the study's conceptions of self-efficacy (classroom management, persistent behaviour, classroom anxiety and professional mastery). Moreover,

background information about the respondents, such as gender, age, level of education and teaching and years of experience were also requested. The researcher administered the survey questionnaire using a self-administered approach and data were collected from teachers during their teaching hours in the schools. Incomplete questionnaires were discarded before data entry. Each correspondent took almost 20 to 30 minutes to complete the questionnaire.

5. Results and Analysis

In order to determine the male and female teachers' self-efficacy beliefs, a t-test was employed to interpret significant differences on four sub-scales and the composite scale. Similarly the t- test was used to investigate the difference between public and private school teachers. A One-way Analysis of Variance (ANOVA) was also used to measure differences in three qualification groups (BA, MA and PhD) and the three levels of teaching (primary, elementary and secondary) with regards to self-efficacy beliefs in terms of locus of control, persistent behaviour, classroom anxiety and professional mastery beliefs.

Table 3. Comparison of means and standard deviation for Teacher Self-Efficacy measures for male and female teachers

Variables	Male (n=168)		Female (n=106)		df	t	Sig
	M	SD	M	SD			
Classroom Management	16.28	10.42	20.02	10.71	272	-2.86	.005**
Persistent behaviour	19.24	10.65	22.06	9.41	272	-2.24	.026*
Classroom anxiety	10.10	4.63	9.51	4.19	272	1.06	.291
Professional mastery	19.59	10.81	25.04	11.34	272	-3.99	.000***
Composite scale	53.63	12.95	53.87	14.40	272	-.14	.888

P<0.00***, P<0.01**, P<0.05*, small effect size

Table 3 shows that there was a statistically significant mean score difference between male and female teachers on the self-efficacy beliefs scale (Hypothesis 1). Females had significantly higher mean scores on the classroom management subscale (M = 20.02, SD = 10.71) than male teachers (M = 16.28, SD = 10.42); $t(272) = -2.86$, $p < 0.00$. Likewise, female teachers had significantly greater mean scores on persistent behaviour (M=22.06, SD= 9.41) than males (M= 19.24, SD = 10.65); $t(272) = -2.24$. In the same way, female teachers had a significantly higher means score (M=25.04, SD= 11.34) on professional mastery beliefs than male teachers (M= 19.59, SD= 10.81); $t(272) = -3.99$.

Table 4. Comparison of means and standard deviations for Teacher Self-Efficacy measures for private and public school teachers

Variables	Private (n=244)		Public (n=30)		df	t	Sig
	M	SD	M	SD			
Classroom management	17.32	10.28	20.96	13.16	272	-1.76	.07
Persistent behaviour	19.78	9.67	24.76	13.61	272	-2.53	.01*
Classroom anxiety	10.03	4.54	8.50	3.52	272	1.78	.07
Professional mastery	21.59	11.18	22.56	12.49	272	-.445	.65
Composite scale	53.88	13.77	52.43	11.17	272	.553	.58

P<0.05*, small effect size

Table 4 shows that there was a statistically significant mean score difference between private and public teachers on the self-efficacy beliefs scale (Hypothesis 2). Public school teachers had significantly higher mean scores on the persistent behaviour subscale (M = 24.76, SD = 13.61) than private teachers (M = 19.78, SD = 9.67); $t(272) = -2.53$, $p < .01$.

Table 5. Analysis of variance for the variable of Academic qualification on Teacher Self-Efficacy Scale and its sub-scales

Scale	BA (n=226)		MA(n=42)		PhD (n=6)		df	F	Sig
	M	SD	M	SD	M	SD			
Classroom management	17.34	10.53	17.85	10.41	31.33	10.15	271	5.18	.00**
Persistent behaviour	19.98	10.06	20.28	10.51	33.83	7.88	271	5.49	.00**
Classroom Anxiety	7.38	4.51	7.09	3.06	7.16	3.06	271	3.48	.403
Professional Mastery	21.17	10.97	22.19	11.66	38.00	11.29	271	6.78	.00**
Composite scale	53.38	13.54	56.11	49.50	16.63	13.54	271	1.02	.36

P<0.01**, P<0.05*, small effect size

Analysis of variance was conducted to test Hypothesis 3: “there is a significant difference in self-efficacy beliefs of BA, MA and PhD teachers on four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery”. One way ANOVA results showed significant results among teachers with different qualifications on classroom management, $F(271) = 5.18, p < .00$ and persistent behaviour $F, (271) = 5.49, p < .00$ and professional mastery, $F(271) = 6.78, p < .00$.

Table 6. Post hoc Tukey’s HSD analysis among BA, MA and PhD qualification on the variable of Teacher Self-Efficacy

ANOVA		SS	df	MS
Classroom management	Between groups	1145.22	2	572.61
	Within groups	29953.24	271	110.52
Persistent behaviour	Between groups	1121.44	2	560.72
	Within groups	27639.33	271	101.99
Classroom anxiety	Between groups	136.35	2	68.17
	Within groups	5304.91	271	19.57
Professional mastery	Between groups	1667.11	2	833.55
	Within groups	33298.74	271	122.87
Composite scale	Between groups	373.28	2	186.64
	Within groups	49411.63	271	182.33

Post hoc Tukey’s HSD was conducted to analyse within-group differences among teachers with BA, MA and PhD qualifications. Tukey’s HSD reflects that teachers with a PhD qualification had significantly higher classroom management beliefs (M= 31.33, SD= 10.15) than teachers with a BA (M= 17.34, SD=10.53) and teachers with a MA (M= 17.85, SD = 10.41). Similarly, PhD teachers held significantly greater persistent behaviour beliefs (M= 33.83, SD=7.88) than teachers with BA (M= 19.98, SD= 10.06) and MA qualification (M= 20.28, SD= 10.51). Likewise, PhD. teachers held significantly greater professional mastery beliefs (M=38.00, SD= 11.29) than BA (M=21.17, SD= 10.97) and MA. (M=22.19, SD=11.66) teachers.

Table 7. Analysis of variance for the variable of level of teaching on Teacher Self-Efficacy Scale and its sub-scales

Scale	Primary (n=100)		Elementary (n=90)		Secondary (n=84)		df	F	Sig
	M	SD	M	SD	M	SD			
Classroom management	20.08	12.62	15.97	8.85	16.79	9.47	271	4.04	.01*
Persistent behaviour	23.26	12.67	18.15	7.44	19.17	8.87	271	6.90	.00**
Classroom Anxiety	9.53	5.33	10.04	10.08	4.27	4.51	271	0.43	.63
Professional Mastery	24.10	12.91	19.43	9.31	21.26	10.79	271	4.21	.01*
Composite scale	52.20	13.67	54.04	11.44	55.19	15.21	271	1.15	.31

P<0.01**, P<0.05*, small effect size

Analysis of variance was conducted to test Hypothesis 4 “there is a significant difference in self-efficacy beliefs of primary, elementary and secondary school teachers on four sub-scales: classroom management, persistent behaviour, classroom anxiety and professional mastery”. One way ANOVA results showed significant results among teachers with different levels of teaching on classroom management, $F(2, 271) = 4.04, p < .01$ and persistent behaviour $F(2, 271) = 6.90, p < .00$ and professional mastery, $F(2, 271) = 4.21, p < .01$.

Table 8. Post hoc Tukey’s HSD analysis among levels of teaching on the variable of Teacher Self-Efficacy

ANOVA		SS	df	MS
Classroom management	Between groups	901.59	2	450.79
	Within groups	30196.87	271	111.42
Persistent behaviour	Between groups	1395.39	2	697.69
	Within groups	27365.38	271	100.97
Classroom anxiety	Between groups	18.12	2	9.06
	Within groups	5423.149	271	20.012
Professional mastery	Between groups	1054.52	2	527.26
	Within groups	33911.33	271	125.13
Composite scale	Between groups	422.14	2	211.07
	Within groups	49362.77	271	182.15

Post hoc Tukey’s HSD was conducted to analyse within-group differences among teachers with primary, elementary and secondary teaching levels. Tukey’s HSD reflects that teachers who were teaching at a primary level had significantly higher classroom management beliefs ($M = 20.08, SD = 12.62$) than BA ($M = 15.97, SD = 8.85$) and MA ($M = 16.79, SD = 9.47$) school teachers. Similarly, primary teachers held significantly greater persistent behaviour beliefs ($M = 23.26, SD = 12.67$) than teachers with BA ($M = 18.15, SD = 7.44$) and MA qualifications ($M = 19.17, SD = 8.87$). Likewise, primary teachers held significantly greater professional mastery beliefs ($M = 24.10, SD = 12.91$) than BA ($M = 19.43, SD = 9.31$) and MA ($M = 21.26, SD = 10.79$) teachers.

6. Discussion

The current study focused on exploring differences in self-efficacy beliefs of in-service teachers in the context of Saudi Arabia. This research also measured the impact of demographic variables on the development of self-efficacy beliefs of in-service teachers. Teacher gender and teaching level is linked to teachers’ job-related beliefs. The main finding of this study was the significant difference between male and female teachers in regard to the classroom management, persistent behaviour and professional mastery beliefs sub-scales. Female teachers demonstrated higher efficacy beliefs on the above mentioned sub-scales. This research finding is consistent with previous research studies (Baldrige, Curtis, Ecker & Riley, 1978; Halford, 2003; Shaukat, 2011). According to these studies, females tend to demonstrate more patience and tolerance while teaching students in terms of classroom management. They exhibit more persistent behaviour towards students’ learning and reveal more self-satisfaction (Shaukat, 2011). In this study, primary school teachers reported higher levels of self-efficacy than teachers at elementary and secondary levels (Wolters & Daugherty, 2007). Researchers (Anderson, 2011; Karimvand, 2011) reported that female teachers have greater self-efficacy, specifically at the primary level. Another study conducted by Wood (2012) found that female teachers performed better than male teachers while managing their classrooms and they were more inspiring and concerned about their students’ classroom needs. Female efficacious teachers not only encourage learning but also stimulate personal development and enthusiasm while providing models of suitable and positive behaviours.

Results from the present study strengthen previous findings that teacher self-efficacy is related with job gratification (Klassen & Chiu, 2012). In this study, public school teachers held significantly more efficacy beliefs than private school teachers; this finding can be traced to previous research studies (Iqbal, Nageen & Pell, 2008; Shaukat, 2011). In the context of Saudi Arabia, government school teachers have more job security and access to facilities while teaching students. Public school teachers have handsome salary packages, including transportation allowances, free medical facilities and house rent relief through the government’s pay policy. Job security is one of the significant factors which increases self-efficacy beliefs of teachers (Organ & Lingl, 1995). Due to job security determinants, public school teachers have more job satisfaction and this helps them to keep their morale high in order to make a difference in students’ learning.

The above findings convey significant practical suggestions, particularly for policy makers, that aim to improve teacher education. Teachers with higher levels of self-efficacy beliefs are expected to be more able to generate the circumstances and stimulate the interactive networks that nurture and sustain their work contentment. This study suggests that professional development programs should be designed to match teachers' career stages so that they may improve their professional skills and knowledge, and also increase the self-confidence in their capabilities that teachers at a future career stage possess. Using professional development opportunities to enhance skills and teachers' self-efficacy may lower job anxiety and increase satisfaction from teaching.

7. Conclusion

The current study measured and compared the self-efficacy of male and female, private and public, BA, MA and PhD, primary, elementary and secondary teachers on classroom management, persistent behaviour, classroom anxiety and professional mastery sub-scales. It concludes that a, more qualified and experienced female primary teacher is more expected to manage her classroom efficaciously than teachers at the other end of these parameters.

The survey results strengthen the need to place a greater emphasis on self-efficacy development strategies in teachers to prepare students to make a difference in their teaching. The survey results have implications for the research design of future studies. One limitation of this study is that the respondents may not represent a random sample of in-service teachers. Certainly, a larger sample from other cities of Saudi Arabia should be included in the sample for future study. This research also provides a new insight into the design of change in teachers' self-efficacy beliefs. This study was also descriptive in nature and there is still a need to design an experimental study primarily addressing teachers' efficacy belief development.

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Appendix A

Sr no	Statements	Strongly agree (5)	Agree (4)	Undecided (3)	Disagree (2)	Strongly disagree (1)
1	I can quickly find out by myself about all the administrator tasks a teacher has to do					
2	I can know exactly what I am trying to do in a class					
3	I can set myself objectives in class and then can achieve them					

4	I would say I may be a very well-organised teacher					
5	My teacher colleague sometimes ask me for advice on being in control of my teaching tasks					
6	I can discipline my students when I have to					
7	Any obstruction in academic assignments cannot prohibit me from completing them					
8	I can modify my teaching approach to get my students to understand better					
9	To achieve my lesson objectives, I might use several different teaching methods					
10	I can use motivational techniques, such as rewards, with those students who show little interest in studies					
11	Each year, my class results are getting better					
12	I make mistakes in my teaching, but I can learn from them					
13	I can ask my students more difficult, probing questions to make them think					
14	I have no worries at all about teaching my classes					
15	I feel very relaxed when I am teaching					
16	The pressure of work in school does not affect me at all					
17	I am not disturbed when there are changes at school, such as a new timetable					
18	A 100% result for my class can give me confidence in my abilities as a teacher					
19	Parents trust my advice in solving their children's school problems					
20	I can be a positive role model for my students.					
21	I may be a satisfied person because I am a successful teacher					
22	I may be respected by my colleagues for being in control of managing my teaching tasks.					
23	I can know the answers to all problems that I might face in class					
24	I can address my students in class by their names					

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Personal Care Robots for Older Adults: An Overview

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Abstract

In recent decades, the usages of robots in variety of industries have been increased. Self-directed robots have appeared in human lives, specifically, in the areas related to the lives of elderly. The population of old people is significantly growing worldwide. Therefore, there the demand for personal care robots is increasing. The aim of this demand is to enhance the opportunity of mobility and promote independence. In the future, robots care will be in very near contact with people lives. But, what caring roles will robots have at home in the future before old persons? It depends not only on the kinds of robots but also those facets of ageing which are discussed in the paper. This article probes the part and function of robots care in the lifecycle of older adults. It contemplates on the advantages and disadvantages of robots application in human life.

Keywords: Robots, Care robots, Elderly care, Human robot interaction

1. Introduction

Technological progress is a universal trend which effects on human life are considerable. Robots are among the greatest technological realizations. The application of robotics has led to notable improvement in human life and industry. Nowadays, robots are a permanent part of various fields including: manufacturing, medical and household services, military activities, and entertainment (Yampolskiy, 2013).

The older population is increasing world-wide which renders their needs an important matter to health providing authorities, agents of governments, caregivers, and families. These leads to the appearance of healthcare robots which have an authoritative role in assisting older adults to independently complete caring responsibilities. They also compensate the shortage in caretakers (WHO, 2016).

Should we be worried about the application of robots for elder care? The application of robotics and related technology is frequently suggested as one way of tackling the increasing number of elderly people in our society. Indeed, there is a rising industry which considers the application of robots for elder care. However, we should be cognizant of some ethical concerns that are being articulated about these progresses (Sharkey & Sharkey, 2010b). There is an anxiety, for instance, that trusting elder care to robots could intensify social isolation, resulting in deception and loss of dignity. At the same time, researchers have pointed to some evidence that confirm the profits of robot care for the elderly (Banks et al., 2008). Also, concerns, advantages and disadvantages of robot care in elderly life will be dealt in this paper.

In the papers related to Robot Care and Elderly, there are some general explanations. But, in this paper, we introduce types of robots and the roles they have in old people's life. We also consider the helpful points of the application of robots in elderly care. Yet, the negative effects, dangers and the anxieties that are resulted from the application are not ignored in this paper. It is followed by some recommendations that can reduce the communication problems between robots and old generations.

Tis paper follows this order: 1. We start the paper by Introduction. Then, we briefly explain the technological concepts and those related to care such as the definition of robot care and the Ethic related to it. 2, we clarify the elderly and robot care, kinds of robotic care and its advantages and disadvantages as well as the public concerns about elderly 3. We go through the Conclusion and recommend some points.

1.1 Technology and Care

The idea that because of its impact on the area of care, the technology which is applied in the field should be investigated supposes that care and technology are in conflict. On the one hand, there is a perspective that

assumes caring and technological knowledge as divergent concepts; that the two are the representation of different domains of meaning (also referred to as "gendered spheres") (Wilson, 2002). In this way, one domain embodies images of personal identity and feeling (care) and the other one produces that of objectivity and standard regulation (technology) (Wilson, 2002).

Therefore, care as in healthcare, is appreciated as a means of addressing the emotional needs related to physiology, physics, and psychology of old people and children in a way to be cognizant of personalized expectations. It demands the exercise of skill along with a sympathetic temperament. Regarding this explanation, it is possible to employ technologies as aids in the offering care in a way that affirms this outlook.

1.2 Definition of Robot

Because of the recent robotic progress, robots nowadays are capable of complex movements, are very skilful and flexible, not to forget the ability of mutual learning from and interacting with humans. According to these innovations, the potential application of robots has greatly expanded (Manyika et al., 2013). The service robotics business is affected by these developments in robotic technologies, which, in its turn, has resulted in numerous robotic applications. Under the influence of the current demographic variations, work restructuring, and the economic crisis, the concentration on the occasions provided by Information, Communication, and Robotics Technology (ICRT) as well as the exploration activities and projects which aim at finalising solutions for sustainable healthcare services has steadily increased (Moschetti et al., 2014). Between 2013-2016, the sales of robots as assistance of old and handicapped people has touched about the number of 6,400 units, and it is assumed to undergo a considerable increase within the next 20 years (IFR, 2014).

Various types of tasks are made possible by making use of the services offered by autonomous service robots. Samples are taking care of old people at home (Kartal et al., 2016; Portugal et al., 2015; Veloso et al., 2012) or accompanying guests in multi-level buildings (Veloso et al., 2012).

Robotic service solutions include the simplest telepresence to the most complex functions to back caregivers. Examples are the Giraff (www.giraff.org) advanced in the ExCITE project (Coradeschi et al., 2013) (, AVA (www.irobot.com/ava) and Luna (Ackerman, 2011), assisting needy persons in their everyday movements (www.aal-domeo.eu), self-management of long-lasting illness (Simonov et al., 2012), comfort and safety as in the cases of Florence (Frank et al., 2012) and Robo M.D (van de Ven et al., 2010), and unification in an environment controlled by smart applications (Cavallo et al., 2013). On the other hand, the number of robotic applications that are dedicated to social services in settings like smart office buildings is very few (Rosenthal & Veloso, 2012).

Considering the entity of a care robot, several definitions are recently offered: Carebots are robots that are designed to assist people, support them, or provide the patients, disabled, young, old or vulnerable people with needed care, in different places and situations like homes or hospitals (Vallor, 2011).

Others, define care robot as a robot which has some projected roles and has to accomplish them. Sharkey and Sharkey discuss the care robots that are designed for elderly people. They mention three main functions of such robots: to help old people in their everyday career; to provide aid in monitoring and controlling the elderly's deeds and health; and spend time with them as their companion. Alternately, care giving robots may be categorized between an "affective robot which is a robot that befriends a human being or works as his/her companion is the opposite of a utilitarian robot which describes a robot which has instrumental functions (Shaw-Garlock, 2009).

2. Ethic and Robot Care

The interest in the investigation of the ethics of employing robots for personal affairs is a matter of curiosity nowadays. This is partly because research in this field possibly will play a progressive role in our lives (Borenstein & Pearson, 2010).

It is believed that noble care (appreciated care) is a kind of care that corresponds to the shifting needs of individuals. This is one of the most significant points that the literature of ethics care is concerned with; care is just regarded as "good care" when it is personalized (Tronto, 2010; Vanlaere & Gastmans, 2011).

If we firstly consider the inventiveness in creating and using care robots based on the certainty that care robots employ a high standard of care, or even possibly improve the quality of care, then the key demand is how others understand care; what is care, what is good care, and how can we achieve this and/or evaluate it? Ambiguity of the nature of care, its structure, what does it involve, and what does it mean, is the cause of all the ethical matters that are spoken of up to date is. This just complicates the explanations about the goodness of care, for whom is it good, and, most important, what elements render it good. As psychoanalyst Sherry Turkle persuasively argues in

her book (Turkle, 2012), the new generation of robots offers the new society the opportunity to rethink on the standards that are important for societal life and to also maintain their place or otherwise pave the ground for trade-off between ideals. This chance is what Turkle (Turkle, 2012) terms as "the robotic moment" and embodies the situation we are experiencing at present. But Turkle (Turkle, 2012) believes that this is not just an opportunity, but a necessity. Care robots let us contemplate on care – what it is, how it is attained – and, therefore, help us to modify the scheme of the robot. For writers like Shannon Vallor (Vallor, 2011), this is to particularly pay attention to the critical things that are necessary for the care-giver when a robot is utilized. Sparrow and Sparrow regard this as acknowledging the significance of the presence of human element in caring (Sparrow & Sparrow, 2006). Sharkey and Sharkey recognize it as the rights of weak demographics and how such rights may impress a care robot (Sharkey & Sharkey, 2012).

3. Elderly-care Robots

Robotic technology has contributed to some new developments that could render the lives of the elderly more manageable. One of the essential reasons to seek the assistance of robots in taking care of the old people is the rapid increasing of the population of the elderly people compared to that of the young people who are able to offer such caring in a society.

From Jan 1, 2011, each day nearly 10,000 Americans have turned 65 and, automatically, become in need of Medicare (Cohn & Taylor, 2010). This increase will last for another 15 years with the same speed. It will enlarge the levels of Medicare and, consequently, multiply pressure on the workers of primary health care who, due to the shortage in number, cannot cover all the needs at present (Health & Services, 2013). Based on some demographic studies it is claimed that as the average life expectancy over the years increases, the European population is getting older (Europea, 2014). Recent data released by European authorities indicates that, at present, around 17.5% of the total population (88.5 million out of 505.7 million people in 2012) are aged 65+. Yet, it is estimated that this percentage will go up to 30% (164 million people) in 2050 (Conrad, 2015; Hendrich et al., 2015). The respective estimations of the increase for China are 6.9% (88 million people) and 23.9% (400 million people) (Hendrich et al., 2015).

Also, by 2015, the number of the people who were above the age of 65 was 25.0% of the total population in Japan. This renders Japan an already and rapidly aging society (Sumiya et al., 2015). The accidental fall is one of the serious risks for the elderly people at home. 25.3% of the people who have more than 85 years, have similar experiences of accidental fall within a year. 62.5% of elder people's fall leads to their injury (Office, 2013). Moreover, the number of the elderly people who live alone has also been expanding (Health, 2012).

Another important matter is that World Health Organization and Alzheimer's International affirm that by 2050 the total of people who are afflicted with dementia will increase by three times worldwide, affecting the life of 115.4 million people (Canada, 2010; Organization). In Canada, the essential cause of disability of Canadians who are 65 years old or more is dementia. It imposes big economic costs on families and is anticipated to rise to \$153 billion dollars by 2038 (Dudgeon, 2010). The other countries such as Japan and the United States have same issues. In these countries, the increase in the aging demographic together with a decline in the traditional caregiver demographic have motivated search for the strategies of advanced dementia care (Broekens et al., 2009; Canada, 2010; Kimura et al., 2010; Kramer et al., 2009; Organization)

Whether or not the role of robots as the best solution to provide help for the weak elderly citizens is accepted, yet these people are certainly in need of care. There are some strong and determined persons who manage to preserve their mind and body active until an old age. Still there are many who are in need of aid in their routine life as well as those people who totally depend on others.

The immobility problems of older people also means that they totally depend on others to manage their daily life at home, and that they are incapable of going out shopping, or visiting people. In addition, some forms of memory loss are expected with growing age, not to forget dementia as a present challenge.

Beside the physical weakness in performing personal affairs, elderly people usually need someone to remind them of the necessity to complete various actions, or tell them about the positions for, and elements of those activities (Sharkey & Sharkey, 2012). Elderly people are permanently exposed to the risk of falling over or getting sick, or getting confused or lost. They should not be left alone, but be attended and be offered companionship, affection and care.

Technological care giving is already realized in most of Western European counties, but the technology that is usually used in this case is not robotic. On the opposite, some of it is no doubt low-tech. The aiding technology that is mostly available for old people in the UK ranges from portable alarms for requesting help; smoke, CO2

and flood sensors; pillboxes or containers that are designed in a way that let older people take their drug on time; fall sensors are another samples as well (Sorell & Draper, 2014).

Two-way visual contact is also a way of communication and connection through webcams and television monitors, though it is not widely used despite its rather cheap price. This allows family members or employed carers to 'look in' on older persons and their homes with no need to commute (Shaw-Garlock, 2009). If older people feel at ease in working with computers, virtual visiting and communication is reasonable and easily established. It is not more difficult than installing and making a Skype account. Even there are virtual visiting systems which are more user-friendly than Skype and operate by connecting to local broadband networks.

Variety of probable positive and innovative aid that automatons and automaton technology could offer to enhance or preserve the bodily and emotional well-being of the aged people are stressed. Aid giver robots and robotic technology are helpful in overcoming the hardships of movement and reducing elderly people's reliance on busy and, sometimes, careless care givers (Banks et al., 2008).

The physical form, emotion and behaviour of small domestic pets are simulated by a number of robots. These can embody some existential features of real pets, reproducing companionship and a space for isolated elders to realize their affection (Sorell & Draper, 2014). This kind of robots is rather cheap, and its therapeutic function not only benefits the older people, but also those younger people who suffer from impaired cogitation, including children with autism. The multi-functioning humanoid robots are more expensive. They can move around in an apartment or bungalow, cooperating with old persons or their nurses, or both (Banks et al., 2008). All of these are despite the lists of benefits of such technological caring for elderly, particularly, in the case of human interaction with robot (Banks et al., 2008).

Care-O-bot is a sample of such technology. Care-O-bot platforms are designed with abilities of speaking to communicate the older person, carrying and lift things, and acting as an audio-visual portal connecting the outside world to the older person's home. Principally, the Care-O-bot could help an older person to be stable when changing position from sitting to a standing one or as they walk. They also have the capability of being encoded to learn and to recall an older person's day-to-day routine life, remind them of things, and transform signals of help when the person falls or any other pre-defined accident happens (Sorell & Draper, 2014).

Clearly, human health is the most pertinent and vital human value for robot care. Recognizing collective human anxieties about the mental and physical health of the elderly is quite logical. If the negative effect of robots on old persons' wellbeing was approved, in itself it was a convincing reason to oppose their usage (Sharkey & Sharkey, 2012).

Employing the robots that are remotely controlled, to screen and virtually check elderly people provides the old people with the opportunity to live self-dependently for a longer time. Robots are there to remind the elderly of the medicines that they should take and attentively observe the health problems and security dangers. Companion robots are used to simplify the social well-being of old people. They function as interesting gadget that old people can refer to share their ideas. Monitoring robots can manage same social interaction by facilitating virtual visits from relatives, friends, and family.

3.1 Types of Robot Care

In the discussions about the next generation of robots, elderly care is a prevalent theme. Many countries encounter the phenomenon of an ageing population for taking care of which there are fewer young people (WHO, 2007). A group of countries, probably Japan and Germany the most notable among them, have referred to robotics as an option to tackle this problem. Old age care has three main areas in which robots are looked at as useful or even necessary: assisting elderly and/or carers to fulfil their works and duties, monitoring health and function, providing companionship (Sharkey & Sharkey, 2010b).

Assistance: Different types of robots can offered variety of ways to actualize their help.. Responsibilities can be simple, short, and restricted, achieved by professionally programmed robots such as cleaner robots like the Roomba or Navi Bot, or feeding-aids such as Bestic or My Spoon that serve users in eating and nursing. More For more sophisticated actions such as personal hygiene, high-tech robots would be necessary.

Health and behaviour monitoring Robots are used in s homes to record user's those behaviours that matter for keeping oneself healthy and safe. Examples of these behaviours are not leaving bed, falling and not standing afterwards, or spending much time in the bathroom. In such states, robots immediately send alerting signals to health services. Other types of behaviour such as habits of eating or treatment are also among the cases of monitoring and the information related to them will be sent to doctors or members of family.

Companionship Robots do not have any assisting role. They are designed to offer companionship and interfere

whenever necessary. In general, this type of robots are programmed to be socially cooperation. Now it is more than a decade that these robots have been in commercial use. They come in different form: the robotic domesticated animals such as the Sony AIBO robot dog, the Pleo dinosaur, and the Paro Seal. A topic that is not much argued about and yet is related to robot carers is child care (Lin et al.; Sharkey & Sharkey, 2010a)

3.2 Disadvantages of Caring with Robot Care

One of the anxieties expressed about the concept of future reliance on robots in caring is that carering robot would isolate the elderly from the rest of society (Sparrow & Sparrow, 2006). Borenstein & Pearson (2010) argue that robot carers will take the place of human ones. They argue that if the robots that are designed for future succeed in accomplishing higher level tasks that demand professional skills in care taking, they, no doubt, will banish human carers from the scene notably because of economic interests. Even if users prefer robots for simple and apparently unsophisticated unsocial tasks in human caring, it will influence the social life of elders. Taking care of elders is not separated from routine household activities such as cleaning. If robots are preferred on human carers in fulfilling some jobs, there will remain no justification for human carers to come.

Accordingly, it is argued that, in such cases, elders will lose the rare opportunities of human contact. Such a thing is observable in cases when robots assume to role of cleaning staff. They emphasize that considering successful robots as true support for human carers, being able to simulate original human interaction is very superficial. Promoting robots to professional fields of elderly care they will reduce human carers. Such a situation will automatically lead to the isolation of elders. Sharkey & Sharkey (2010) point to the fact that replacing humans with robots in caring responsibilities such as lifting or carrying things or dusting might reduce the chance for natural and essential need of human contact (Sharkey & Sharkey, 2010a). They explain that for establishing human relationships, regular, simple care duties such as changing diapers or clothes etc. are of significance. Consequently, leaving robots with these responsibilities will limit the chance of care recipients for improving necessary human contacts. If robot carers bear the responsibility of everyday routines, elders will confront an unwanted, imposed loneliness for long periods of time.

Another case that reduces human contact is the recruitment of robots as means of surveillance and sensing. The reason is that detailed surveillance will reduce the intention of carers and members of the family to visit elders and check their situation (Sharkey & Sharkey, 2011b). Park (2010) notes that the elders who live at home or the places that offer nursing are already isolated. However, s/he stresses that robots would render the situation worse. Because of this isolation, elders don't easily accept to have robots. To receive human carers as visitors creates such a humanitarian atmosphere that having their help in activities such as taking shower or other personal hygiene affairs is somehow approved. Though there are many people who consider these affairs as highly personal and are reluctant to have another person do them.

Despite these claims, having human carer is usually the only available social communication and human interaction for old people. For us the issue is not merely about the replacing of human carers by robot carers; a cause that increases the isolation of care recipients. There are debates about the role of robot carers in improving the self-reliance of care recipients and reducing their dependence on human carers (Borenstein & Pearson, 2010).

There are five essential subjects which should be considered before any decision for the full application of robot technology in elder care is made (Sharkey & Sharkey, 2011a, 2012; Sharkey & Sharkey, 2010a, 2010b).

- i. The reduction of human social exchange. In such occasions, elderly people will be subjected to more neglect by society and their families compared to earlier times (Shaw-Garlock, 2009). If other humans simply assume that the old generation' physical and emotional needs are addressed by machines; the role of robots in such a neglect is not as much as that of human.
- ii. Loading the robots with numerous tasks to increase the convenience of human carers, which consequence is increased conflict with elderly people who come to see themselves as objectified and, in such a situation, loss lose their self-control. This incident is possible, for instance, when robots are used to relocate people around without informing them in advance.
- iii. The limitations imposed on personal freedom are another side-effect of resorting to robots for elder care. The extent of the manageability of the limitation imposed on humans' behaviours by robots is a difficult question. It has a wide range of implications.
- iv. Cheating and infantilising mature people: it happens when old people are encouraged to refer to robots as their companions, (although as it is discussed, the elderly maybe personally undergo such a deception that complicates the matter); and finally

- v. If the control of robots is given to elderly people, there is the possibility that things will go wrong. But this raises an argument on other controversial issues such as the extent of agreement with the elderly person's desires, and the relationship of the control recognized for elderly person and their mental status (Parks, 2010; Sharkey & Sharkey, 2011a, 2012; Sharkey & Sharkey, 2010a, 2010b).

3.3 Ethical Concerns Robots for Elder Care

The industry of robotic technology for elder care is a growing one. Nevertheless, there are some ethical concerns about the developments in this field (Sharkey & Sharkey, 2010b).

For example, suppose a scenario in which robot *X* assists an elder person *Z* who has passed a very bad night and suffers of it. Since *X* is expected to eliminate *Z*'s pain, it is concerned with the best position of *Z* in bed to help relieve his pain, but *Z* asks for pain-killer medication. Yet, *X* is programmed to refer to *Z*'s remote human supervisor before giving *Z* any medication. The conflict continues because the attempts of the robot to contact the supervisor fail. What options do *X* have? Ignore *Z*'s in pain or give *Z* the pain medication (e.g., it is aware that, in *Z*'s case, taking pain medication is insignificant). What would a human health-carer do in such a situation? This is one of the possible scenarios where future autonomous robots with executive capabilities might face proper impasses in handling social situations; no difference what is their decision, they even cause pain and suffering for humans. The matter then is the reaction of such robots. Should human allow the robots to act beyond the rules, humanize them with moral emotions (such as empathy) and some general ethical understanding (based on some ethical theory) that can guide them in their cognitive calculations, policymaking and, on the whole, evaluation of their choices and actions.

Furthermore, there is a consideration, for instance, of the appropriateness of using robots for elder care one of which results is intensified social isolation together with deception and loss of dignity. Obviously, human mental and physical sanity is the most critical and vital human value in robotic care. Recognizing the common human concerns related to the physical and mental wellbeing of the elderly is of priority. If the harmful effects of the application of robots in old persons' life were approved, in itself, it had the capacity to question their usage (Sharkey & Sharkey, 2012).

The most important ethical anxieties resulted from making use of robots as carers of the elderly as well as their influence on these people's security are classified in two notions (Sharkey & Sharkey, 2012).

- Firstly, it susceptible will diminish the already limited human contact of the elderly.
- Secondly, in the case of insensitive use, it could intensify a sensitivity about self-objectification and absence or loose of control over personal lives in senior citizens (Sharkey & Sharkey, 2012).

One of the serious difficulties of aging is the reduction or disappearance of social life and human connections. The fear rises from the anxiety that relying on robots in elder care for household tasks such as "lifting," "carrying," or even "cleaning" might result in a reduced human social contact for an elderly person (Sharkey & Sharkey, 2012). In their argument about the utilization of robots for the elderly care Sparrow and Sparrow (2006), decided that if robots were used, for example, to replace a human cleaner in tasks such as cleaning floors, this would eliminate the senior citizen's rare chance for improving minimum social interaction and, as such, it is better to be avoided.

4. Conclusion and Recommendations

In the last decades, robots have widely been used in various industrial fields. Self-governing robots have been employed in human lives, particularly in managing the lives of the old and very young people. The population of the old generation is significantly rising worldwide; therefore, there is an amplified need for the robots that offer personal care. It is for improving movement and facilitate independence. It is expected that in the approaching years, human being will have a very close collaboration with personal care robots. This article focused on the concepts that consider the daily tasks of robots in the life of both children and adults. In addition to the positive points of the application of robots in the daily life of children that is for enhancing their living conditions, – it was explained in this article – the shortcomings and resulted anxieties were also stressed. It is something that people should consider. Elderly are in need of for social contact, yet old group may not be familiar with that knowledge of the technology which underlies the apparent approachability of interactive robots. Scholars have investigated both of these factors to enhance the propensity to be anthropomorphic in recent accounts (Epley et al., 2007). Elderly people are permanently exposed to the risk of falling over or getting sick, or getting confused or lost. They should not be left alone. So, it is not recommended to leave elderly for long ours with a robot. It is recommended that elderly need to be encouraged to obtain robotic literacy. Such 'literacy' will let them learn about these facts:

- The mechanism of producing, maintaining and operating robots, highlighting their man-made properties;
- What are the limits and potentials of different types of robotic technological knowledge.

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Self-rated Health among HIV-infected People Receiving Treatments in Thailand

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Abstract

Few studies have investigated the impact of antiretroviral treatment on the self-rated health of people living with HIV/AIDS. Self-rated health provides a global assessment of an individuals' health status, encompassing several dimensions that no other single health outcome is able to capture. In this paper, we investigate the self-rated health of HIV-infected people receiving antiretroviral treatment at two different time-points, the time of interview and the time of antiretroviral initiation. A life-event history survey was carried-out among 513 HIV-infected individuals receiving treatment in four community hospitals in Chiang Mai province, Northern Thailand. Interviews cover their family, residential, education, occupation and health history including self-rated health over their lifespan. The proportion of participants reporting poor or very poor health decreased dramatically from 56% before treatment initiation to 6% at the time of interview. This huge improvement in self-rated health paralleled with clinical and biological markers. At the time of interview, factors independently associated with better self-rated health were the absence of symptoms and an immunological recovery (Odd Ratios (OR): 2.22 and 1.52, respectively). At treatment initiation, the absence of symptoms, of severe immunosuppression and no history of hospitalization were independently associated with better self-rated health (OR: 2.22, 1.52, and 3.11, respectively). These results confirm the validity of the self-rated health indicator in the particular context of HIV/AIDS.

Keywords: Self-Rated Health, HIV/AIDS, Life-event survey, Antiretrovirals, Thailand, South-East Asia

1. Introduction

With more than one million people infected since the beginning of the HIV epidemic, mostly through heterosexual contacts, Thailand remains the most severely hit country in South-east Asia. According to the Joint United Nations Programme on HIV/AIDS (*UNAIDS*) (WHO/UNAIDS, 2014), in 2013 the prevalence of HIV was estimated at 1.1% among adults aged 15 to 49 years old, with a total of 440,000 people living with HIV/AIDS. Among those meeting the criteria for initiating antiretroviral treatment, 80% were receiving it (Anonymous, 2014).

With improved survival due to antiretroviral treatments, increased attention is paid to the quality of life of people living with HIV/AIDS (Bing et al., 2000; Briongos Figuero, Bachiller Luque, Palacios Martin, Gonzalez Sagrado, & Eiros Bouza, 2011; Duracinsky, Herrmann, et al., 2012). To date, few studies have investigated their self-rated health, which in fact is an important component of quality of life (Harding et al., 2012; Koelmeyer, English, Smith, & Grierson, 2014; Liu et al., 2006; Mrus et al., 2006; Munyati et al., 2006).

Because it is both global and easy-to-collect, self-rated health is widely used in surveys and in evaluation programmes. More than 30 years of research have established that this subjective indicator provides a global assessment of the individuals' health status, encompassing a host of dimensions that no other single health outcome is able to capture. Self-rated health is strongly correlated with morbidity and disability (Ferraro, Farmer, & Wybraniec, 1997; Goldberg, Gueguen, Schmaus, Nakache, & Goldberg, 2001; Johnson & Wolinsky, 1993; Manor, Matthews, & Power, 2001; Singh-Manoux et al., 2006). Important determinants of self-rated health are also unhealthy behaviours, mental health and psychosocial factors (e.g., personality traits, coping styles) (Benyamini, Idler, Leventhal, & Leventhal, 2000; Eriksson & Lindstrom, 2006; Manderbacka, Lundberg, &

Martikainen, 1999). Moreover, poor self-rated health has consistently been reported to be predictive of mortality, even after controlling for the presence of a number of life-threatening diseases (Frankenberg & Jones, 2004; Idler & Benyamini, 1997). This relationship has mainly been established for developed countries, but several studies, notably in Asia (Hirve et al., 2012; Jylha, 2009; Zimmer & Prachuabmoh, 2012), suggest that they also hold in developing countries.

In this paper, our focus is on the self-rated health of people living with HIV/AIDS in Thailand. The data we use are from the Living with Antiretroviral Study LIWA project (ANRS 12 141), which was designed to evaluate the impact of antiretroviral treatments on the lives of people living with HIV/AIDS in Thailand (Le Coeur, Collins, Pannetier, & Lelievre, 2009). Participants, all receiving treatment, were asked to assess their health status throughout their life (including childhood) with a particular focus at the time of the survey as well as at the time of treatment initiation. The disease stage of the participants as indicated by their immunological status, was also available at both dates, allowing to compare self-rated health to a robust biological marker. We also investigate to which extent other characteristics of the participants (medical and socioeconomic) correlate with self-rated health, both at the time of interview and of treatment initiation.

2. Methods

2.1 Survey Design

A life-event history survey was conducted from August to November 2007 in four community hospitals in Chiang Mai province, Northern Thailand. Among all the patients under antiretroviral treatment ($n=578$) during the study period, 513 persons (i.e., 89% of all patients receiving treatment in the four hospital sites) agreed to be interviewed.

Data collected with the life-event history questionnaire included the respondents' socio-demographic characteristics (sex, age, educational level, marital and work histories) as well as the main events related to the HIV disease: presence of symptoms, hospitalizations, year of HIV diagnosis, reasons for testing and year of treatment initiation. At the very end of the interview, respondents were asked to evaluate their health throughout the entire life course ("How would you rate your health status throughout your life"). They themselves defined the different periods and qualified each using a pictogram (smiley) scale corresponding to the 5 possible item responses (very poor, poor, fair, good, very good). The disease stage was evaluated by the number of CD4 lymphocytes, the blood cells progressively destroyed by the HIV virus. The clinical indicators are the self-reported weight and height, as well as the weight loss before the beginning of the treatment.

The survey was approved by the Ethical Committee of the Faculty of Associated Medical Sciences, Chiang Mai University.

2.2 Statistical Analysis

Self-rated health is used as an ordinal categorical variable, ranging from 1 (very poor) to 5 (very good), but to account for small numbers, responses to the self-rated health question have been combined into three categories. At the time of interview, since the distribution of self-rated health tended strongly towards better health, the three categories used were "very poor/poor/fair", "good" and "very good", while before treatment initiation the distribution tended towards poorer health and the three categories used were "very poor", "poor/fair", "good/very good". The cut-off values for the CD4 levels are those recommended for clinical management: < 200 cells/mm³ (threshold below which there is an immunosuppression and therefore a high risk of infections) at the time of interview, and < 50 cells/mm³ (threshold for severe immunosuppression and therefore a high risk of death) before treatment initiation. Following the World Health Organization (WHO) classification (2004), the body mass index (BMI) computed at the time of the interview is categorized into three groups: underweight (< 18.5), optimal weight ($18.5 \leq \text{BMI} < 25$), overweight or obese (≥ 25). For the year of diagnosis, patients were classified as diagnosed before or after 2003, the year when antiretroviral treatments became available for free in Thailand.

The very limited missing data—only 3% of the respondents' heights and only 1% of their weight deficits before antiretrovirals initiation—were considered as missing completely at random. Missing BMIs were imputed using a regression model while missing weight deficits were imputed using a simple hot-deck procedure, i.e. replacing missing values with values from "similar" respondents (Andridge & Little, 2010).

The correlation between self-rated health and the CD4 counts is estimated with the Spearman correlation coefficient, which does not require a linear correlation. To examine the association between self-rated health and the respondents' characteristics at the time of the interview and at the time of treatment onset, separate multivariable ordinal logistic regressions have been adjusted to control for sex, age and educational level, as well as for the variables found to be significantly ($p < 0.20$) associated with self-rated health in bivariate models. Age

and age² were introduced in the model to take into account the nonlinear relationship between age and self-rated health which improved the fit. The proportional odds assumption was considered tenable *vis à vis* the gain in the number of parameters estimated on a relatively small size sample (Agresti, 2010). We conducted the statistical analysis using SAS software, version 9.2 (SAS Institute Inc., Cary, NC, USA).

2.3 Ethics Approval and Consent to Participate

The survey was approved by the Ethical Committee of the Faculty of Associated Medical Sciences, Chiang Mai University. Before participation in the study, written informed consent was obtained from all individual participants.

3. Results

3.1 Characteristics of the Population

Characteristics of the HIV-infected population in the study are provided in Table 1, column 1. There are slightly more women than men (53% versus 47%). The average age of the participants is 40 years old. Half of them are currently married, and 44% have experienced widowhood in the past. Only one third have reached secondary education level or above. The vast majority of the respondents (87%) draw a regular income from work. More than half of them (55%) were diagnosed before 2003, and 55% initiated treatment within one year of diagnosis. At the time of the survey, 56% of the respondents had already been under treatment for at least 3 years. We therefore deal here with a sample of low-income, middle-aged HIV-infected people (88.5% infected sexually), who were regularly working and who in most cases had a family and children to support.

Table 1. Self-rated health at the time of interview according to social and medical characteristics

	All patients		Very poor, Poor, Fair		Good		Very Good		P-value*
	N	(%)	N	(%)	N	(%)	N	(%)	
	513	(100)	173	(33.7)	233	(45.7)	107	(20.9)	
Sex									
Women	271	(52.8)	92	(34.0)	125	(46.1)	54	(19.9)	
Men	242	(47.2)	81	(33.5)	108	(44.6)	53	(21.9)	0.853
Mean Age	40.6		41.2		40.1		40.6		0.352
Current marital status									
Separated/Never married	140	(27.3)	51	(36.4)	60	(42.9)	29	(20.7)	
Married	259	(50.5)	80	(30.9)	123	(47.5)	56	(21.6)	
Widowed	114	(22.2)	42	(36.8)	50	(43.9)	22	(19.3)	0.742
Experience of partner death (n=480)**									
Yes	211	(44.0)	68	(32.2)	97	(46.0)	46	(21.8)	
No	269	(56.0)	95	(35.3)	123	(45.7)	51	(19.0)	0.668
Education Level									
Up to primary	346	(67.4)	126	(36.4)	150	(43.4)	70	(20.2)	
Secondary or above	167	(32.6)	47	(28.1)	83	(49.7)	37	(22.2)	0.179
Regular income from work									
Yes	445	(86.7)	139	(31.2)	208	(46.7)	98	(22.1)	
No	68	(13.3)	34	(50.0)	25	(36.8)	9	(13.2)	0.010
Year of HIV diagnosis									
≤2003	281	(54.8)	89	(31.7)	135	(48.0)	57	(20.3)	
After 2003	232	(45.2)	84	(36.2)	98	(42.2)	50	(21.6)	0.412
Delay between HIV diagnosis and ART initiation									
≤1year	282	(55.0)	94	(33.3)	126	(44.7)	62	(22.0)	
> 1 year	231	(45.0)	79	(34.2)	107	(46.3)	45	(19.5)	0.800
Antiretroviral treatment duration									
< 3 years	224	(43.7)	92	(41.1)	89	(39.7)	43	(19.2)	
≥3 years	289	(56.3)	81	(28.0)	144	(49.8)	64	(22.2)	0.008
Body Mass Index (BMI)									
<18.5	108	(21.1)	48	(44.4)	45	(41.7)	15	(13.9)	
18.5-24.9	337	(65.7)	112	(33.2)	151	(44.8)	74	(22.0)	
≥25	68	(13.3)	13	(19.1)	37	(54.4)	18	(26.5)	0.008
Presence of symptoms									

Yes	57	(11.1)	33	(57.9)	21	(36.8)	3	(5.3)	
No	456	(88.9)	140	(30.7)	212	(46.5)	104	(22.8)	<0.001
History of hospitalization in the last 12 months									
Yes	47	(9.2)	24	(51.1)	17	(36.2)	6	(12.8)	
No	466	(90.8)	149	(32.0)	216	(46.3)	101	(21.7)	0.035
CD4 count (cells/mm³)									
<200	98	(12.1)	52	(53.1)	34	(34.7)	12	(12.2)	
≥200	415	(80.9)	121	(29.2)	199	(47.9)	95	(22.9)	<0.001

Source: LIWA survey, 2007.

* Fisher exact test of the difference in the distribution of perceived health, except for age (continuous variable) for which the one-way variance F-test was used to test the difference between mean ages according to perceived health status. ** for ever married respondents

3.2 Health Status at the Time of the Interview

All health indicators point towards a favourable condition under antiretroviral treatments (Table 1, column 1). Two thirds of the participants have a BMI in the normal range. Only a small minority (11%) experience symptoms related to HIV. The majority of the patients (81%) are not immunosuppressed as indicated by a CD4 count above 200 cells/mm³. Only 9% of all patients have been hospitalized at least one night in the last 12 months. At the time of interview, 45% of the respondents rate their health as good, 21% as very good, 28% as fair, and only a small percentage as poor (5.5%) or very poor (0.5%) (Table 2).

Table 2. Health perception indicator by sex at the time of the interview, and before treatment initiation

	At the time of the interview*					
	Females		Males		Total	
	N	%	N	%	N	%
	271	(53)	242	(47)	513	(100)
Self-rated health						
Very Poor	2	(0.7)	1	(0.4)	3	(0.6)
Poor	12	(4.4)	16	(6.6)	28	(5.5)
Fair	78	(28.8)	64	(26.5)	142	(27.7)
Good	125	(46.1)	108	(44.6)	233	(45.4)
Very good	54	(19.9)	53	(21.9)	107	(20.9)
	Before treatment initiation**					
	Females		Males		Total	
	N	%	N	%	N	%
	271	(53)	242	(47)	513	(100)
Self-rated health						
Very Poor	63	(23.3)	80	(33.1)	143	(27.8)
Poor	76	(28.0)	70	(28.9)	146	(28.5)
Fair	68	(25.1)	50	(20.7)	118	(23.0)
Good	40	(14.8)	22	(9.1)	62	(12.1)
Very good	24	(8.9)	20	(8.3)	44	(8.6)

Source: LIWA survey, 2007.

** Self-rated health before treatment initiation is ultimately grouped into 3 categories: Very Poor, Fair (fair/poor), Good (good & very good) with a significant sex effect (p-value=0.0283).

In the bivariate analysis (Table 1), sex, age, marital status, educational level and year of diagnosis do not appear

to be significantly associated with self-rated health. However, good and very good self-rated health is associated with regular income from work ($p=0.010$), treatment duration longer than 3 years ($p=0.008$), normal BMI ($p=0.008$), absence of symptoms ($p<0.001$), absence of recent hospitalization ($p=0.035$), and CD4 count above 200 cells/mm³ ($p<0.001$). Figure 1 shows the strong correlation between self-rated health and the CD4 count, with the mean CD4 counts increasing steadily from 138 cells/mm³ for those declaring very poor health to 410 cells/mm³ for those in very good health (Spearman correlation coefficient 0.194, $p<0.01$). The multivariable ordinal logistic regression analysis (Table 3) indicates that, after adjustment on the characteristics of the respondents, the remaining variables associated with a better self-rated health are the absence of symptoms (Adjusted Odds Ratio (AOR): 2.85; 95% Confidence Interval (95%CI): 1.6-5.0), and a CD4 count above 200 cells/mm³ (AOR: 2.1; 95%CI: 1.3-3.4). Although less statistically significant (at 90% not 95%), patients with a regular income from work (AOR for no income: 0.6; 90% CI: 0.4-0.9) and those with a BMI above normal (AOR: 1.6; 90% CI: 1.0-2.4) tend to report better health.

Table 3. Ordinal logistic regression results for better self-rated health at the time of interview

	N	(%)	AOR*	95%CI	p-value
Sex					
Women	271	(52.8)	1.00		
Men	242	(47.2)	0.86	0.61-1.20	0.372
Mean age					
			1.04	0.88-1.23	0.653
Mean square Age					
			1.00	1.00-1.00	0.564
Education Level					
Up to primary	346	(67.4)	1.00		
Secondary or above	167	(32.6)	1.28	0.89-1.86	0.182
Regular income from work					
Yes	445	(86.7)	1.00		
No	68	(13.3)	0.62	0.67-1.04	0.070
Antiretroviral treatment duration					
< 3 years	224	(43.7)	1.00		
≥3 years	289	(56.3)	1.27	0.90-1.81	0.174
Body Mass Index (BMI)					
<18.5	108	(21.0)	0.78	0.51-1.20	0.253
18.5-24.9	337	(65.7)	1.00		
≥25	68	(13.3)	1.55	0.94-2.56	0.084
Presence of symptoms					
Yes	57	(11.1)	1.00		
No	456	(88.9)	2.85	1.62-5.04	<0.001
CD4 count (cell/mm³)					
<200	98	(12.1)	1.00		
≥200	415	(80.9)	2.14	1.35-3.38	0.001
History of hospitalization in the last 12 months					
Yes	47	(9.2)	1.00		
No	466	(90.8)	1.37	0.74-2.55	0.321

Source: LIWA survey, 2007. * AOR: Adjusted Odds Ratio

3.3 Health Status at the Time of Treatment Initiation

Self-rated health at the time of treatment onset is shifted toward worse health compared to the time of the interview (Table 2). More than half of the participants (56%) reported poor (28%) or very poor self-rated health (29%), 23% reported it as fair and only 21% considered their health as good or very good.

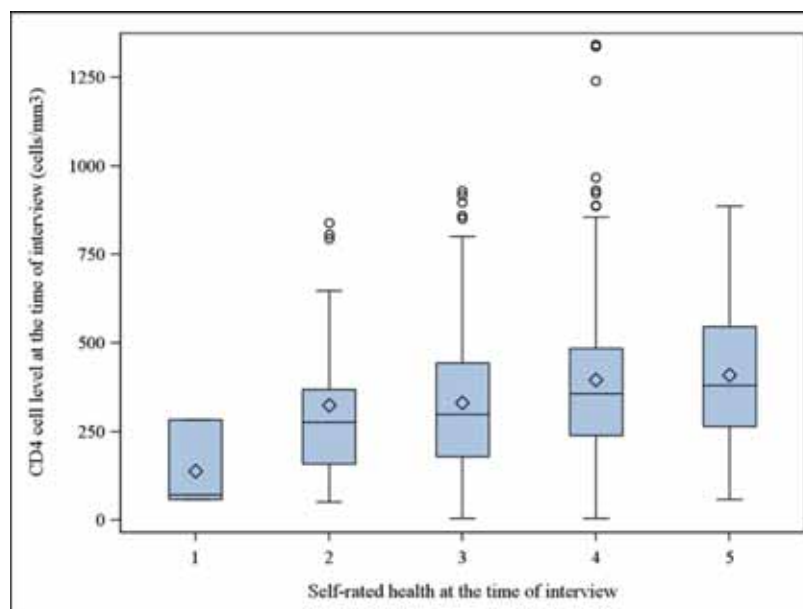


Figure 1. Immunological status as indicated by the CD4 level, according to self-rated health at the time of the interview (Source: LIWA survey, 2007)

Overall, eighty five percent of the respondents were experiencing symptoms, some of them severe (Table 4, column 1). For half of them, it was the presence of HIV symptoms which triggered HIV testing and therefore diagnosis. Only one-fourth had been tested because their partner or child had been diagnosed as HIV infected, usually before having symptoms. One third of the patients (32%) had experienced a weight loss of more than 10 kg. Almost half of the participants (49%) had been hospitalized before treatment onset, and the majority had a very low CD4 count (44% were severely immunosuppressed as indicated by a CD4 cell count below 50 cells/mm³), being at high risk for opportunistic infections and death.

Table 4. Self-rated health at the time of treatment initiation according to social and medical characteristics

	All patients		Very poor		Poor/Fair		Good/Very Good		P-value*
	N	(%)	N	(%)	N	(%)	N	(%)	
	513	(100)	143	(37.9)	264	(51.5)	106	(20.7)	
Sex									
Women	271	(52.8)	63	(23.3)	144	(53.1)	64	(23.6)	0.028
Men	242	(47.2)	80	(33.1)	120	(49.6)	42	(17.3)	
Mean Age	40.6		41.2		40.1		40.6		0.087
(Standard deviation)	(8.1)		(8.2)		(7.8)		(8.1)		
Education Level									
Up to primary	346	(67.4)	88	(25.4)	181	(52.3)	77	(22.3)	0.159
Secondary or above	167	(32.6)	55	(32.9)	83	(49.7)	29	(17.4)	
Reasons for testing									
HIV symptoms	255	(49.7)	82	(32.2)	130	(51.0)	43	(16.8)	0.115
Partner/child with HIV	123	(24.0)	31	(25.2)	64	(52.0)	28	(22.8)	
Other	135	(26.3)	30	(22.2)	70	(51.9)	35	(25.9)	
Weight deficit									
≥ 10 kg	165	(32.2)	55	(33.3)	84	(50.9)	26	(15.8)	0.066
< 10 kg	348	(67.8)	88	(25.3)	180	(51.7)	80	(23.0)	
Presence of symptoms									
Yes	435	(84.8)	135	(31.0)	228	(52.4)	72	(16.6)	<0.001
No	78	(15.2)	8	(10.3)	36	(46.1)	34	(43.6)	

History of hospitalization before treatment initiation									
Yes	252	(49.1)	103	(40.9)	125	(49.6)	24	(9.5)	
No	261	(50.9)	40	(15.3)	139	(53.3)	82	(31.4)	<0.001
CD4 count (cells/mm ³)									
< 50	225	(43.9)	83	(36.9)	107	(47.6)	35	(15.5)	
[50;200]	242	(47.2)	49	(20.3)	130	(53.7)	63	(26.0)	
≥ 200	46	(8.9)	11	(23.9)	27	(58.7)	8	(17.4)	<0.001

Source: LIWA survey, 2007.

* Fisher exact test of the difference in the distribution of perceived health, except for age (continuous variable), for which the one-way analysis of variance F-test was used to test the difference between mean ages according to perceived health status

Table 5. Ordinal logistic regression results for a better self-rated health before treatment initiation

	N	(%)	AOR*	95%CI	p-value
Sex					
Women	271	(52.8)	1.19	0.83-1.72	0.343
Men	242	(47.2)	1.00		
Mean age			1.12	0.96-1.31	0.138
Square Age			1.00	1.00-1.00	0.207
Education Level					
Up to primary	346	(67.4)	1.00		
Secondary or above	167	(32.6)	0.84	0.57-1.22	0.357
Reasons for testing					
HIV symptoms	255	(49.7)	0.835	0.54-1.28	0.406
Partner/child with HIV	123	(24.0)	0.615	0.37-1.01	0.054
Other	135	(26.3)	1.00		
Weight deficit before ART					
≥10kg	165	(32.2)	0.847	0.58-1.23	0.382
< 10kg	348	(67.8)	1.00		
Presence of symptoms					
Yes	435	(84.8)	1.00		
No	78	(15.2)	2.22	1.33-3.72	0.002
History of hospitalization before treatment initiation					
Yes	252	(49.1)	1.00		
No	261	(50.9)	3.11	2.12-4.56	<0.001
CD4 count (cells/mm ³)					
<50	225	(43.9)	1.00		
≥50	288	(56.1)	1.52	1.06-2.18	0.022

Source: LIWA survey, 2007. * AOR: Adjusted Odds Ratio

In contrast with the situation at the time of interview, there is a significant difference in the self-rated health of the two sexes, with women declaring better health ($p=0.028$). Other factors associated with good or very good self-rated health at the time of treatment initiation are the absence of symptoms ($p<0.001$), the absence of past hospitalization ($p<0.001$) and higher CD4 count ($p<0.001$). There is a trend toward an association between an important weight loss (more than 10 kg before treatment initiation) and a poorer self-rated health ($p=0.066$). Age, educational level and reason for HIV testing are not associated with self-rated health. Results of the multivariable ordinal logistic regression (Table 5) indicate that the remaining characteristics associated with a better self-rated health at the time of treatment initiation, after adjustment, were the absence of symptoms (AOR: 2.2; 95%CI: 1.3-3.7), the absence of hospitalization history (AOR: 3.1; 95%CI: 2.1-4.6), and a CD4 above 50 cells/mm³ (AOR: 1.5; 95%CI: 1.1-2.2).

4. Discussion

Our study among HIV-infected persons living in Thailand confirms the health improvement after receiving

antiretroviral treatments. The proportion of participants reporting poor or very poor health decreased dramatically from 56% to 6%. Compared to their situation prior to treatment onset, one third of the HIV-infected persons interviewed have gained more than 10 kg of body weight and only 11% (vs. 85% at treatment onset) have symptoms. The percentage of patients with no or minor immunosuppression as indicated by a CD4 cell count above 200 cells/mm³ has risen from 9% to 81%.

Our results are in line with other studies that have shown improved quality of life in the antiretroviral treatment era (Bing et al., 2000; Call et al., 2000; Duracinsky, Lalanne, et al., 2012; Liu et al., 2006; Miners et al., 2001). They testify to the remarkable efficacy of antiretroviral treatments, allowing patients to recover a better health status and to regain their position in society. Indeed, the vast majority of the HIV-infected persons surveyed (87%) draw a regular income from work. As shown in a previous analysis (Lelièvre & Le Cœur, 2012), they are able to regain their family role as parents and to fulfil their supporting role to older relatives.

Interestingly, the self-rated health of our study population at the time of interview (i.e., after an average 3 years under antiretroviral treatment) is strikingly similar to that observed among 87,000 Thai university students with a median age of 29 years (Seubsman, Kelly, Yiengprugsawan, Sleigh, & Thai Cohort Study, 2011): 21.1% (vs. 20.9% in our study) reported excellent or very good health; 49.2% (vs. 45.4%) good health; 25.1% (vs. 27.7%) fair health; 4.0% (vs. 5.5%) poor health; and 0.6% (vs. 0.6%) very poor health. As mentioned before, the cognitive process involved in the self-rating of health relies on a great deal of elements that may vary from one person to another. In particular, it is commonly agreed that self-rated health is a relative statement: among other things, people compare their health status to how it was in the past (Fayers & Sprangers, 2002). Most persons included in our survey have lived through times when treatments were not available, HIV infection was lethal, and death was the only prospect. This may explain why their self-rated health in our survey is very close to that of a “healthy”, younger population.

Our research adds to the literature about the reliability of the self-rated health indicator, particularly in the context of HIV infection. We indeed find a significant association between self-rated health and a robust biological marker, the CD4 counts, both at the time of the survey and at the time of treatment onset. Few studies have explored self-rated health in the particular context of HIV infection. In a study on 1941 HIV-infected persons enrolled in the US between 2000 and 2002, poor self-rated health was significantly associated with older age, history of injecting drug use, lower CD4 cell count, and salvage therapy (Mrus et al., 2006). A more recent study (Borges de Souza Junior, Landmann Szwarcwald, & de Castilho, 2011) investigated the self-rated health of 1260 HIV-infected persons under treatment in Brazil, using the same scale as ours. Sixty five percent of the participants rated their health as good or excellent, which is very similar to our result (66%). Biological data were unfortunately not available in this study, but the authors also found that antiretroviral side effects and AIDS-related symptoms, as well as educational level and occupation, were independent predictors of poor self-rated health.

The literature has provided conflicting results on the relation between the socio-economic situation and self-rated health (Dowd & Zajacova, 2010; Singh-Manoux et al., 2007). In the present research, being able to draw a regular income from work is borderline associated with better self-rated health ($p=0.07$). We cannot rule out that, with a larger sample size, this association would have reached statistical significance.

Regarding gender differences in health rating, studies on the general population generally find that women report poorer health than men (Case & Paxson, 2005). Nevertheless, this gender effect usually disappears after taking into account socioeconomic variables and chronic conditions. In our study, we do not find any differences in self-rated health between men and women at the time of interview. However, at the time of treatment initiation, women reported significantly better health than men. Indeed, most men (65% *versus* 38% of women) were diagnosed because of health problems related to HIV, while a large proportion of the women were diagnosed at a time when they had not developed any symptoms, either because their spouse was infected or had died of AIDS (34%), or during antenatal care (17%). We have shown previously that women benefit from better access to HIV testing and treatment (Le Coeur et al., 2009). This differential is clearly reflected in their self-rated health.

We also find that retrospectively self-rated health at the time of treatment onset is significantly correlated with clinical information (CD4 count, weight loss and symptoms at that time). This result has important implications in terms of public health. Valid measurements of changes in health are indeed needed to evaluate response to treatment and to monitor treatment efficacy over time. Changes may be evaluated in the frame of a follow-up survey, where the same question is asked repeatedly over time. But in the case of self-rated health, changes are affected by “ceiling” or “floor” effects: people who declare being in excellent (or very poor) health at one time cannot declare a better (or worse) self-rated health at a subsequent time (Gunasekara, Carter, & Blakely, 2012).

Little is known about the validity of self-rated health assessed retrospectively. Some authors suggest that self-rated health is a “self-enduring” concept (Bailis, Segall, & Chipperfield, 2003): though it is sensitive to changes in “true” health (Quesnel-Vallee, 2007), it also presents stability over time. As suggested by the reference theory (Festinger, 1954), comparison to the health status of others or to one’s health at other periods of time contributes to this relative stability. In our survey, the self-rated health question is asked after other life trajectories (family, migration, occupation, and disease) have been reconstructed, therefore facilitating the contextualization of the assessment. This feature of the questionnaire is likely to reduce the risk of “recall bias”, which is entailed in retrospective surveys. It must also be noted that antiretroviral initiation is a turning point in the disease history, which is generally well remembered by the patients.

We have to acknowledge several limitations in our study: Our study population is relatively small and it is possible that, with a larger population size, some borderline differences would have reached statistical significance. Also, our population is mostly composed of “recovered” patients who accessed antiretroviral treatment after being symptomatic. They may not be representative of all HIV-infected patients, in particular, those who have earlier access to treatment.

5. Conclusion

Our study indicates the improvement in the self-rated health of the people infected with HIV after receiving antiretroviral treatment in parallel with the improvement of their clinical and biological status. The “normalization” we observe, as indicated by the fact that the self-rated health of these people is similar to that of a “healthy” younger population (Seubsman et al., 2011), constitutes a strong positive message for patients, health care workers and policy makers.

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Undressing the Ad of Kinder Surprise!

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Abstract

This study aims at analyzing a kinder surprise advertisement selected from “the vintage toy advertiser”, an Internet magazine. The methodology adopted in the critical examination of the advertisement is the qualitative method that implements Firth’s model on the analysis of the layers of meanings in ads. The goal of the analysis is to investigate how children advertisements use semiotics and discourse to make adults and children buy into their ideas, concepts, and products. The investigation shall target the rhetorical strategies and the semiotic features used in the ad to scrutinize the associations the viewers construct from the visual semiotics involved proving how these features are directly responsible for the ideology the ad constructs.

Keywords: Rhetorical devices, textual analysis, semiotics, children’s advertisements, ideology, Firth’s levels of meaning

1. Introduction

Children advertisements are intended to convince both children and parents to buy toys, chocolate, or simply any product meant for children. Because these commercials highly influence the minds of children, chocolate adverts try their best to be highly pervasive especially that nowadays we have thousands of different types and brands of children chocolate. The main goal behind chocolate advertising is to drive consumers behavior into buying or demanding no other chocolate but the one seen in the ad. An attractive graphic, a strong headline or a subtle slogan should do the trick.

However, some believe this to be a creative process that should be appreciated, while others consider it to be an unethical and dangerous process that is capable of affecting the minds of children, building ideologies with the ability of corrupting their minds with the messages they construct from the advertisement. This is why, though one cannot deny that advertising is a very creative process, one must also admit that they could be dangerous on our children’s minds, and this is why adults should be able to decode advertisements, unmask any intentional or unintentional messages released to help shield our children from danger. For this purpose, this paper attempts to critically analyze one of the Kinder Surprise adverts to unmask the creative strategies used for persuasion, as well as, the negative ideology and messages that the advert intentionally or unintentionally emits to our children.

2. Research Questions

1. What are the rhetorical strategies, Linguistic and paralinguistic features that the ad uses? For what purpose?
2. What ideologies(s) is the ad communicating?
3. Is the ad harmful to the minds of children? Why or why not?

3. Literature Review

3.1 Background

Advertisements are an inherent part of our daily life. They have achieved amazing effects on persuading consumers into buying products. Ads play an important role in selling the goods. Some people call it an art of language using various kinds of devices with a major role of arousing interest, attracting attention, and stimulating purchasing desire. No matter where people are, ads do find their way to consumers, whether through the TVs at home, billboards on the roads, magazines, newspapers, mobile applications, or the net.

3.2 Advertisements and Meaning Making

Advertisements are not only economic entities, but they also deal with values, attitudes, and ideas shaping culture

(Sinclair, 1987). Advertising is a social practice, which does not work in vacuum; it interlinks many things together like person and object, symbol, symbolism and power, and communication and satisfaction (Jhally, 1987). When it comes to analyzing advertisements, especially visual texts, photographs, typed words, font, and color, are all as important as the verbal part. They work a system of signs that interact together to aid in building meaning to the perceiver. The more these signs are used effectively, the more the semiotics is convincing, the more creative and comprehensible the ad is. Semiotic analysis of an ad seeks to find out how the messages are formed and given meaning. Semiotic reference plays an important role in the relationship between the discourse used and the ideology created (Najafian & Dabaghi, 1991).

3.3 Firth's Levels of Analysis

Any commercial has a role to convince people to buy something, even if they had to get them to change their beliefs or ideologies. For this reason, any reviewer of any advertisement should be able to undress the ad. Katherine Firth (1998) discusses a tripartite approach to reading advertising in her book "Undressing the Ad: Reading Culture in Advertising". Firth suggests textual analysis as a useful technique for critically deconstructing both the surface and the deeper social and cultural meaning of adverts. She mentions three levels of analysis. First, comes the surface meaning that the ad holds. It "consists of the overall impression that a reader might get from quickly studying the advertisement" (1998:5). Second is the advertiser's intended meaning which "is the sales message that the advertiser is trying to get across" (ibid). Last is the cultural or ideological meaning that "We all 'make sense' of ads by relating them to our cultural and to the shared belief systems held in common by most people" (ibid).

3.4 Rhetorical and Visual Semiotics Analysis

The goal of a rhetorical and visual semiotic analysis is to analyze how the advertiser and creator of the visual is presenting his case, and what ideologies he is spreading. All kind of usage of language, especially in advertising, involves a certain amount of element of persuasion in them. The classic rhetoric theory uncovers the way the element of persuasion works, and how it can be effectively consumed. Furthermore, the use of rhetorical strategies does expose how semiotics plays a role in creating ideologies through advertisements. Visual semiotics, on the other hand, a sub-domain of semiotics, studies the way visual images communicate a message in terms of signs and patterns of symbolism. Since ads nowadays started depending more on images rather than words, and especially when it comes to children ads, visual semiotics become involved.

3.5 Background on the Product

The advertisement is promoting a chocolate product for children. The product is Kinder Surprise that is made with chocolate, which contains more than 32% milk. The product comes in the form of an egg, which turned out to be very appealing for kids. What adds to its appeal is the fact that each egg holds a surprise. The surprise is a collectible toy which is very unique, either one of the characters of the latest Disney film or a toy that can be assembled together to end up with a truck, a pony etc. Kinder Surprise offers three things in one. First, it grants the 'goodness of Kinder chocolate' that is more milk and less cocoa. Second the excitement of the hunting the surprise. There are more than 100 different surprises in each yearly series. The toys are appealing to children and adults with respect to their details, themes, colouring, and assembling. According to Kinder Surprise, every toy is a unique and exclusive creation designed only for Kinder by teams of professionals in child development, psychology, and pathology.

4. Methodology

4.1 Research Design

A qualitative design was adopted for the study the advertisement of Kinder Surprise, a chocolate egg like product with a toy inside for kids. This advertisement has been selected from the Internet website: thevintagetoyadvertiser.org. This website advertises ads that feature collectible or vintage toys. It featured this ad from 1980 in France. No English language ads for Kinder Surprise were found on this website.

4.2 Data Analysis

Firth's Levels of Analysis is the tool used to read and assess the levels of meaning in the ad and show how the advert reflects certain ideologies. Furthermore, a Rhetorical Analysis is also conducted to expose the way the semiotics in the advertisement are used to control children's minds. These analyses shall prove the argument raised on the threat that children advertisements impose on adults and children to buy into their ideas and products, and the dangers of the ideology the ad spreads.

5. Data Analysis

5.1 Description of the ad

The ad features a young boy flying in a basket tied up to a balloon with three ropes. The balloon is the product itself, the Kinder Surprise, the milk chocolate egg wrapped in white and red. The little blond happy boy who has trapped three Kinder eggs so far is stretching his arms to collect more eggs scattered in the sky along a white shade crossing the dark blue sky, forming a road like filled with Kinder chocolate eggs. Two of these eggs are illuminating and projecting the surprise toys inside them, the first a clown and the second a vehicle with wheels. The balloon, or the egg itself that is carrying the boy up in the sky, is speaking in French saying “Go for it! Catch the new Kinder Surprise”. The font used is all in red, and in big letters. The call out takes the shape of a cloud flying next to the balloon. At the very bottom of the ad is also written in French “The chocolate Surprise” in a white color. The word Surprise, in the ad, is all in white, unlike in the real product.

5.2 Analysis of Firth's Layers of Meaning

Firth states that ads hold three different meanings: the surface meaning, the advertiser's intended meaning, and the ideological meaning. The surface meaning in this ad gives the impression, that the boy is so happy catching his chocolate surprise eggs, as the fantasy of every kid is toys and chocolate. The intended meaning of the advertiser is to show children how happy they would be collecting all the Kinder Surprises available. The *air balloon* that the kid is riding has been considered as one of the most unique ways to see the world's spectacular settings from above.

The advertiser tries to influence children to catch as many (very spectacular) Kinder Surprises as possible and thus affecting them ideologically. This brings us to the third level of meaning, the ideological. Children are made to believe that no matter how many eggs they collect, it is natural and it brings them joy. One boy collecting all these eggs is no longer a sign a mere of happiness and satisfaction, but rather a sign of greedy tendencies, of not having enough, of demanding more than your needs, insufficiency of belongings, selfishness as there is no other kid in the ad to share with all the chocolate and collectible toys. Another thing is the issue of the toys, it is no longer the chocolate that matters, it is the toy that the ad features the most, more than the chocolate itself. The fact that Kinder spends a very big budget yearly on the development of the toys, to make them collectible items, is also a matter of concern that needs to be analyzed. So, the ad echoes the fact that there is no such thing as ‘enough’ for the kids anymore. Though this falls in the favor of the product holders who are running the ad, it does not fall in favor of our nation, as it is very dangerous to bring our children according to such doctrines and codes.

5.3 Analysis of the Semiotics and Rhetoric Devices in the Advertisement

Ideology is associated with concepts such as worldview, the system of beliefs, and values. For this reason, mass media adverts can be understood, in ideological terms, as forms of communication that privilege certain concepts or attitudes and neglect or discard others. Much of the debate nowadays is about the acceptability of the images that the mass media disseminate and their effect on our youngsters.

These debates are mainly over the values the ads focus on, and the implications of their images and the apparent lessons they teach about social codes. One cannot deny that media texts are key sites where basic social norms are articulated. The media give us pictures of social interactions, by their sheer repetition on a daily basis through broadcasts or abundance on billboards and magazines, they can play important roles in shaping character traits (what is normal, accepted, unaccepted, deviant behaviors or lifestyles) and thus broad social manners. Below is an analysis of how the ‘Kinder Surprise’ ad plays a role in shaping character traits of children while persuading them of the product.

The advertisement employs different rhetorical appeals to persuade the children to buy the chocolate egg. The ad triggers the feelings and emotions of children into believing that catching kinder eggs would make them happy. The ad creates an emotional reaction in the reader. These feelings of happiness, satisfaction, and contempt are invested in persuading the children to demand the product. At the same time, it affects parents into believing that happiness of their children comes with Kinder Surprise. Since pathos corresponds to raising emotions as a technique used for persuasion, we touched on the rhetorical appeal that the ad adopts.

Both linguistic and paralinguistic devices are also used in this advert for the sake of persuasion. Linguistically speaking, not only the brand “Kinder”, the German word for children, but also the hollow egg shape of the product with the word ‘Surprise’ in a bubbly, as if air filled, font are so appealing and do generate a lot of harmony between the brand name and the product. The positivity and warmth of the name along with the bubbly font used for “Kinder Surprise” on the egg itself arousing feelings of lust and yumminess, creates an

emotional tie between the product and the consumer that is further intensified linguistically with the words” Allez Y! or Go for it! The imperative tone reminds children of their days at the daycare or preschool whenever the teacher guides them in play or singing altogether. That is to say in all fun activities the teacher says, “Go for it!” when she intends to motivate her students. The same can be said for the imperative use of the verb “catch”. Catching is all related to balls or egg hunting, activities related to fun. Other than the font, another paralinguistic feature would be the use of the blue color for the background of the ad. The blue color representing the sky denotes innovation, which further certifies the novelty of ‘Kinder surprise’, the fact that it is the first chocolate brand that offers its milk and chocolate with a collectible ‘vintage’ toy. The “S” in the word Surprise in the call out, has a very special design in this font. Both curves in the letter “S” are a bit spiral like, a significance of illusions and fantasy that are linked to fun (amusement parks and rides). At the very bottom of the ad is also written in French “The chocolate Surprise”, but with a different font, that is more formal, white in color, and less dynamic signifying a less focus or interest on the chocolate itself. The word Surprise, in the ad, is all in white, unlike in the real product.

As you have seen, linguistic and paralinguistic features, have been exploited to influence the viewers emotionally and ideologically. The idea of the toy surprises that have been considered as collectible items, vintages, with the way the toys are portrayed all aid in building a relationship between the viewer and the product, as these visuals do create a passion for the object and make it easier to persuade consumers about it. Ideologically speaking, one cannot overlook the fact that the persuasion in the ad and the pathos created are actually based on feelings of desire and seduction.

5.4 The Ideology the ad Spreads

The analysis of this Kinder Surprise advert signals that it can ideologically affect children as well as parents in several ways. First, the hollow chocolate egg demonstrates a desire for something beyond the thing we need, the hollow chocolate shell is discarded for another plastic yellow shell, the one holding the toy inside. This is very dangerous as it unconsciously drives us into replacing one item of desire with another. In this way, and according to Salvož Žižek, a basic structure of desire becomes controlled by the commodity: Kinder Surprise offers the ‘something more’ (the collectible toy surprise) beyond the initial object purchased, but discarded or neglected (the chocolate) for it. Another dangerous factor the advert promotes is the fact that when children pursue the chocolate egg for the sake of the toy, as we see with many children who are not interested in consuming the chocolate, but rather in playing with toy, the advert becomes about pure consumerism then, without any claim to use the value of the product itself. It is a matter of pure excitation of desire. Third, the ad teaches children to become greedy individuals in our society. The ad features only one chubby happy boy, who has already collected three Kinder Surprises, and is still stretching his arms from the basket attached to the balloon, to collect all the eggs that are only scattered on the path of the balloon flying in the sky. This is a mere distortion of fundamental life values. Fourth, the promotional appeal of the toy induces the child to eat in exchange of the reward. So, children start eating not because they want to eat, but just to be rewarded. Last but not least, the absence of another child to share the vintage toy with does not encourage children to socialize when it comes to Kinder Surprise and its toy.

6. Findings

Advertisers create a plan to attract the attention of a determined public about a product in order to sell it. In the case of children marketing, the objective is to mobilize childhood fantasies, so that the child desires the product with great intensity to a point that convinces the parents that it getting it will grant him or her a lot of happiness. By doing this, advertising is fabricating empty concepts of happiness. This concept becomes linked to developing habits of consumption which can be considered as a bad and sometimes a dangerous habit when it grows out of control and becomes consumption for consumption’s sake, especially when the items consummated do not offer complete satisfaction. Furthermore, this would lead to the distortion of social, ethical, and moral values that we try to raise our kids to. Kids might stop sharing, develop selfish needs and greed, and become mere consumers of undesired products. So, they become easy targets for advertisers, can be easily influenced into any concept with the use of proper graphics, logo, rhetorical devices, and linguistic and paralinguistic features.

7. Conclusion

Linguistic researchers analyze the rhetorical devices, the linguistic and paralinguistic features of visual texts to study the ideology of adverts. They are interested in studying or analyzing the way these features are employed in adverts to transmits ideologies, affect the minds of the people into buying their product, the values that the advertisements legitimize, and the kinds of behaviors that are deemed normal. This paper studied these features

with respect to the 'Kinder Surprise ad' to uncover the values and the ideology the children chocolate advert was passing to our children. This integrated analysis of the advert, verifies that it is very important thing is that our observation does not become a passive acceptance of ideas, and for this reason we must pass what we are shown through the prism of our perception and minds before accepting the "truths" offered. That is why; it is crucial that we understand the implications that advertisements have on our lives, so that neither we, nor our children become mere objects of manipulation.

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Appendix A



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An Investigation of Iranian Learners' Utilization of Politeness Strategies and Power Relations in Refusal Speech Act across Different Communicative Situations

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Abstract

This study aimed to examine the L2 pragmatic knowledge of Iranian intermediate learners of English through the performance of the speech act of refusals in English across diverse situations. One hundred and twenty five Iranian learners whose language proficiency was at the intermediate level took part in this research. The required data were collected by mean of an Oxford Placement Test (OPT) and a Written Discourse Completion Task (WDCT). The results showed that most respondents tended to use more indirect strategies (55.5%) to refuse another speaker's suggestion or request either with higher or lower power or within different social distance. They utilized direct strategies with 24.1% and adjuncts to refusals with 18.9% respectively. The findings are illustrative of the fact that the variations in the use of different strategies are less seen in the data. In other words, learners employed almost the same semantic formulas or pragmalinguistic forms to refuse affairs in most of the situations. It can be said that learners might not have enough awareness or consciousness regarding the use of different pragmalinguistic forms in performing the refusal since they did not have sufficient understanding of context and contextual factors involved as well. Therefore, the results can suggest that the learners lack sufficient pragmatic knowledge in confronting different situations. The implication of this study is for Iranian language instructors to teach a variety of speech acts' strategies, politeness strategies and draw learners' their attention to the contextual features in opting out the appropriate strategy in a variety of situations.

Keywords: Iranian learners of English, L2 pragmatic knowledge, politeness strategies, power relations, refusal speech act

1. Introduction

Communication among diverse cultures is an everyday phenomenon in recent decades due to the globalization and multiculturalism around the world. Therefore, there should exist a shared channel for the purpose of intercultural communication. So, the English language occupies a fundamental position in this perspective and it is considered as shared vehicle among an assortment of cultures. Since individuals should understand each other's speech in the act of communication in order to convey the intended meaning, therefore the matter of appropriate intercultural understanding of speech becomes important among interlocutors (Al-Zumor, 2011; Dastjerdi & Farshid, 2014). It is worth mentioning that the use of the English language is accentuated more in EFL contexts since EFL learners are necessitated to make use of the English language for their interactive purposes. These needs include doing their business with other communities, searching and reading scientific articles, applying for diverse jobs in other countries and so on.

According to Kachru (1996), Iran is situated in the Expanding Circle Countries (ECC) like Japan and Korea, where English is considered as the Foreign Language (EFL) as contrary to outer circle countries which English is used as a Second Language (ESL) like Malaysia and inner circle countries such as U.S., Canada, and Australia where English is utilized as the First Language. Iranians learn English language as the dominant foreign language to connect and interact with other communities worldwide.

Moreover, it is important to know that Iran as a foreign language context does not provide EFL learners sufficiently to have contact with the English language and culture outside the classroom setting and learners have

to depend on classroom learning (Allami & Naemi, 2011). As such, the majority of Iranian students (primary, secondary, high school, and university students) and even other individuals with diverse educational levels and majors with different ages prefer to go to private language institutes to study and learn English to practice it more there (Farhadi et al., 2010; Hosseini, 2007). In this way, private language institutes have taken the responsibility to satisfy people's needs to learn English (Shoarinejad, 2008).

The justification of the above issue is better manifested by the following statistics; approximately 100,000 learners have enrolled in a private language institute, namely the Iran Language Institute (ILI) established in different cities in Iran in 2013 (Moradi et al., 2013). An assortment of Iranians' incentives can contribute to such reputation of learning English at private language institutes. These motives are for example seeking better educational or employment opportunities, augmenting the mobility and migrating to diverse English speaking countries (Hakimzadeh, 2006). The report shows that more than 150,000 Iranian citizens migrate to other countries each year, particularly the English speaking countries such as the USA, the UK, Australia and Canada (Moradi et al., 2013). This census is indicative of the positive attitudes of Iranians, especially the younger generations, towards learning English. In order to satisfy their communicative demands in intercultural communications and multicultural world, they have to learn English to use it. Considering this issue, Moivnavziri (2008) reported that her participants were highly instrumentally and integratively motivated to learn English. Vaezi (2008) also acknowledges the previous findings and declares that Iranians have high motivation to learn English.

1.1 Statement of the Problem

When speakers from diverse socio-cultural backgrounds interact with each other, they may not comprehend another interlocutor's speech or intended meaning and as a result, cross-cultural misunderstanding may take place in some specific situations between people. This quandary is considered as the one of the problems that EFL learners, especially Iranian learners of English face when they communicate interculturally with other individuals (Derakhshan & Zangoei, 2014). In fact, the main problem Iranian learners of English encounter in the act of intercultural communication is pertinent to pragmatic-rooted one related to the appropriate use of language (Gahrouei, 2013). Therefore, it can be claimed that the most fundamental cause of misunderstanding between cultures is concerned with the pragmatic breakdown in opting out the proper speech act strategies (Kia & Salehi, 2013). As such, to eschew intercultural misapprehensions and the consequential pragmatic breakdown in the act of interaction, L2 pragmatic knowledge of EFL learners should be sufficiently developed so that they can cross their intended meaning to other interlocutors. This issue can give rise to more efficient and prosperous intercultural communication (Lin, 2014; Salehi, 2013).

Since the classroom context is the sole place that Iranian learners learn the English language, therefore second language acquisition researchers have been inspired to examine the current position of L2 pragmatic knowledge of Iranian learners of the English language in language classrooms and investigate the development of learners' pragmatic knowledge in EFL contexts (Sabzalipour, 2013; Tamjid & Noroozi, 2014). In addition, the review of research literature of L2 pragmatics in EFL contexts has illustrated that the most researches done (Abu Hamaeid, 2013; Know, 2004; Lin, 2014) were intercultural studies which made a comparison between the pragmatic production of English native speakers with non-native English speakers in terms of the understanding and producing the strategies of speech acts. These studies have mostly epitomized on learners' pragmalinguistic knowledge without the consideration of the effect of contextual factors (pragmalinguistic knowledge) on learners' pragmatic performance. As such, there is a dearth of research to examine both Iranian learners of English pragmalinguistic and sociopragmatic knowledge in EFL contexts. Therefore, this study tries to fill this gap by examining L2 pragmatic knowledge of Iranian learners (both pragmalinguistic and sociopragmatic knowledge) via performing and producing the speech act of English refusal in various situations. This study employed two theoretical models, i.e., the speech acts theory of Austin (1962), the politeness theory of Brown and Levinson (1987).

2. Method

2.1 Participants

The subject of this research included one hundred and twenty five Iranian EFL learners whose language proficiency was at the intermediate level. After the administration of OPT placement test, 125 learners were chosen as intermediate level learners according to the test results and the reminders were eliminated from the research. The whole participants were female since the gender was not considered as a variable in this research and their age ranged between 25 to 40 years old.

2.2 Instruments

For the accumulation of the necessary data for the purpose of this research, a Written Discourse Completion Task or Test (WDCT) was employed in this study. This questionnaire is an international recognized and most common employed questionnaire for evaluating L2 pragmatic knowledge of learners. This questionnaire was utilized in this research for some reasons. First, given that the purpose of this study was to evaluate the pragmatic knowledge of learners, the most effective instrument to achieve necessary data is by means of this questionnaire. Secondly, the preparation and administration of this type of questionnaire for a bulky number of participants need less time. Thirdly, more time is allocated to subjects to think about the situations and the given responses and they may employ diverse strategies compared to other instruments. The questionnaire of this study was adapted from Allami and Naeimi (2011). The situational variables of social power, distance, and imposition/severity were inserted in the situations of the questionnaire. The questionnaire consisted of twelve natural situations with different degrees of social power, distance and imposition regarding different matters. The whole questionnaire comprised three requests, three invitations, three offers, and three suggestions situations which the respondents were required to refuse suggestion, requests, invitations and offers. Furthermore, each situation includes one refusal to a person of higher status, one to a person of equal status, and one to a person of lower status. The following table shows topics and situational variables of the refusal speech act.

Table 1. Topics and situational variables of refusal situations

Item	Topic	Variable		
		Imposition	Status	Distance
1	Refusing to increase the pay of a worker as a book shop owner.	-	+	+
2	Refusing to give notes to a classmate for the exam.	+	=	-
3	Refusing to eat out in an expensive restaurant with a sales person of another company as the president of a big company	-	=	+
4	Refusing to go to the boss's party with your spouse.	-	-	+
5	Refusing to eat a snack at the friend's house.	+	=	-
6	Refusing to give a report to the boss	-	-	+
7	Refusing to receive money for the cleaning lady's mistake from her.	+	+	+
8	Refusing a student's suggestion about the class in the university.	+	=	+
9	Refusing a friend's offer of another piece of cake.	+	=	-
10	Refusing a friend's invitation for a party.	+		
11	Refusing the boss's suggestion for a better position due to moving to another city	-	-	+
12	Refusing the boss about staying over at work.	-	-	+

Considering the validity of the questionnaire, four experts approved its validity by checking both the content and face validity of the questionnaire. The experts were four professors of applied linguistics from university kebangsaan Malaysia. Regarding the reliability of the questionnaire, the inter-rater reliability was performed. The inter-rater reliability estimate for the questionnaire was achieved at around 0.91% which is an acceptable index.

2.3 Data Collection Procedure

The procedure of data collection was conducted at the classroom sessions of the winter academic semester of 2015 at five private language institutes in Shiraz city, Iran. The sampling procedure was a convenient random sampling. The number of intermediate EFL learners was 125 learners. The reason is that the number of subjects should be more than 100 for survey researches (Dornyei, 2007). The data were accumulated at sessions when the classroom instructors let the researcher to do so. First, all the necessary explanations with regard to whole questionnaire were given by the researcher in both the English and Persian languages in order to eschew any misunderstanding by the learners to provide the appropriate answers. The questionnaire had the instruction part. It asked the participants to read the 12 situations. After each situation, the participants were asked to write a response in the blank after 'You'. The subjects should imagine that they do not want to comply with their request, invitation, etc. in addition, they were supposed to respond as naturally as possible and try to write their response as they feel they would say it in the situation. Then, they were given half and hour minutes time to give the

answers for each situation for the speech act under study. At the end, all the questionnaires were collected by the researcher.

2.4 Data Analysis

The analysis and categorization of the collected data by means of the questionnaire were conducted based on the refusal taxonomy with regard to the kind and frequency of the pragmatic strategies or linguistic forms opted out by participants. Therefore, the taxonomy of Beebe et al. (1990) was employed for the speech act of refusal in this study. The selected taxonomy is shown below.

Table 2. Taxonomy of Refusal: (Beebe et al., 1990)

Strategy	Example
I. Direct	
A. Performative	I refuse
B. Nonperformative statement	
1. No	
2. Negative willingness/ability	I cant, I won't, I don't think so.
II. Indirect	
A. Statement of regret	I'm sorry. I feel terrible
B. Wish	
C. Excuse, reason, explanation	My children will be home that night. I have a headache.
D. Statement of alternative	
1. I can do X instead of Y	I'd rather do...I'd prefer
2. Why don't you do X instead of Y	Why don't you ask someone else?
E. Set condition for future or past acceptance	If you had asked me earlier, I would have...
F. Promise of future acceptance	I'll do it next time. I promise I'll. Next time I'll..
G. Statement of principle	I never do business with friends
H. Statement of philosophy	One can't be too careful
I. Attempt to dissuade interlocutor	
1. Threat or statement of negative consequences to the requester	I won't be any fun tonight to refuse an invitation
2. Guilt trip	I can't make a living off people who just order coffee (waitress to customers who want to sit a while)
3. Criticize the request/requester, etc. (statement of negative feeling or opinion, insult, attack)	Who do you think you are? That's a terrible idea!
4. Request for help, empathy, and assistance by dropping or holding the request.	
5. Let interlocutor off the hook	Don't worry about it. That's okay. You don't have to.
6. Self-defense	I'm trying my best. I'm doing all I can.
J. Acceptance that functions as a refusal	
1. Unspecific or indefinite reply	
2. Lack of enthusiasm	
K. Avoidance	
1. Nonverbal	
a. Silence	
b. Hesitation	
c. Do nothing	
d. Physical departure	
2. Verbal	
a. Topic switch	
b. Joke	
c. Repetition of part of request, etc.	Monday?
d. Postponement	I'll think about it.

e. Hedging	Gee, I don't know. I'm not sure.
Adjuncts to refusals	
1. Statement of positive opinions/feeling or agreement	That's a good idea...I'd love to...
2. Statement of empathy	I realize you are in a difficult situation.
3. Pause filler	Uhh...well...uhm...
4. Gratitude/appreciation	

3. Results

In order to meet the research objective of this study, the data were collected through the Written Discourse Completion Test/Tasks (WDCT). The researcher examined the L2 pragmatic knowledge of Iranian intermediate learners of English by producing the speech act of refusals in English across diverse situations. It was aimed to evaluate learners' knowledge in recognition and production of accurate and appropriate speech act strategies or linguistic forms as well as situational understanding of three factors of social power, distance and imposition. In so doing, they were given some situations and they had to write the answers to the situations based on what they would say verbally for each scenario.

The following table illustrates the descriptive results based on frequency of the speech act' strategies and the corresponding percentage in each situation. As it was mentioned before, the items of the questionnaires differ in terms of social distance, power and rank of imposition to tap learners' awareness in using various strategies.

Table 3. Percentage of refusal strategies across all situations

Strategies	1	2	3	4	5	6	7	8	9	10	11	12	Total
I. Direct	-	-	-	-	-	-	-	-	-	-	-	-	24.1%
A. Performative	-	-	3.1%	-	-	-	-	-	-	-	-	-	0.2%
B. Non Performative statement	-	-	-	-	-	-	-	-	-	-	-	-	-
1.No	-	18.1%	6.2%	2.2%	11.5%	4%	13.3%	3.8%	28.2%	6.5%	8.3%	-	9.04%
2.Negative willingness/ability	34.4%	15.1%	12.5%	15.5%	15.3%	16%	16.6%	7.6%	6.5%	8.6%	25%	11%	14.9%
II. Indirect	-	-	-	-	-	-	-	-	-	-	-	-	74.9%
A. Statement of regret	24.1%	30.3%	25%	22.2%	3.8%	8%	-	-	-	19.5%	11.1%	31%	15.1%
B. Wish	-	-	-	2.2%	-	-	-	-	-	2.1%	-	2.8%	0.7%
C. Excuse, reason, explanation	17.2%	30.3%	34.3%	33.3%	26.9%	36%	-	19.2%	30.4%	34.7%	25%	48%	28.8%
D. Statement of alternative	-	-	-	-	3.8%	-	-	-	2.1%	-	-	-	0.4%
1. I can do X instead of Y	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Why don't you do X instead of Y	-	-	-	-	-	-	-	-	-	-	-	-	-
E. Set condition for future or past acceptance	3.4%	-	3.1%	2.2%	-	4%	3.3%	7.6%	-	2.1%	2.7%	-	2.2%
													0.7%
F. Promise of future acceptance	3.4%	3%	-	-	-	-	-	3.8%	-	-	-	-	-
G. Statement of Principle	-	-	-	-	-	-	6.6%	7.6%	-	-	-	-	0.9%
H. Statement of Philosophy	-	-	-	-	-	-	10%	15.3%	-	-	-	-	1.7%
I. Attempt to dissuade interlocutor	-	-	-	-	-	-	-	-	-	-	-	-	-
1. Threat or statement of negative consequences to the requester	-	-	-	-	-	-	-	-	-	-	-	-	-
2. Guilt trip	-	3%	-	-	-	-	-	-	-	-	-	-	0.2%
3. Criticize the request/requester	3.4%	-	-	-	-	-	-	-	-	-	-	-	0.7%
4. Request for help, empathy, and assistance by dropping or holding	-	-	-	-	-	-	-	7.6%	-	-	-	-	-

the request													
5.Let interlocutor off the hook	-	-	-	-	4%	36.6%	-	-	-	-	-	-	2.9%
6.Self-defense	3.4%	-	-	-	3.8%	4%	-	-	-	-	2.7%	-	1.2%
J.Acceptance that functions as a refusal	-	-	-	-	-	-	3.8%	-	-	-	-	-	-
1.Unspecific on indefinite reply	-	-	-	-	-	-	-	-	-	-	-	-	-
2.Lack of enthusiasm	-	-	-	-	-	-	-	-	-	-	-	-	-
K.Avoidance	-	-	-	-	-	-	-	-	-	-	-	-	-
1.Nonverbal	-	-	-	-	-	-	-	-	-	-	-	-	-
a.Silence	-	-	-	-	-	-	-	-	-	-	-	-	-
b.Hesitation	-	-	-	-	-	-	-	-	-	-	-	-	-
c.Do nothing	-	-	-	-	-	-	-	-	-	-	-	-	-
d.Physical departure	-	-	-	-	-	-	-	-	-	-	-	-	-
2.Verbal	-	-	-	-	-	-	-	-	-	-	-	-	-
a.Topic switch	-	-	-	-	-	-	-	-	-	-	-	-	-
b.Joke	-	-	-	-	3.8%	-	-	-	-	-	-	-	-
c.Repetition of part of request	-	-	-	-	-	-	-	-	-	-	-	-	-
d.Postponement	-	-	-	-	-	-	-	-	-	-	-	-	-
e.Hedging	-	-	-	-	3.8%	-	-	-	-	-	2.7%	-	-
Adjuncts to refusals	-	-	-	-	-	-	-	-	-	-	-	-	-
1.Statement of positive opinions/feeling or agreement	3.4%	-	3.12%	8.8%	7.6%	-	7.6%	2.1%	4.3%	8.3%	-	3.9%	
2.Statement of empathy	-	-	-	-	-	6.6%	-	-	-	-	-	0.4%	
3.Pause filler	3.4%	-	-	4.4%	7.6%	12%	6.6%	7.6%	2.1%	8.6%	2.7%	2.8%	4.6%
4.Gratitude/ appreciation	3.4%	-	12.5%	8.8%	11.5%	12%	-	7.6%	28.2%	13%	11.1%	2.8%	10%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Twelve situations with different degrees of social power, distance and imposition were given to learners to refuse to invitations, requests, offers and suggestions. They were required to refuse three suggestions, three requests, three offers and three invitations. In this regard, respondents' use of refusal strategies was divided into direct, indirect and adjuncts to refusals. The results showed that most respondents tended to use more indirect strategies (55.5%) to refuse another speaker's suggestion or request either with higher or lower power or within different social distance. About 3% of the respondents just used performative strategies in the situation three. They utilized direct strategies with 24.1% and adjuncts to refusals with 18.9% respectively. Among direct strategies, negative willingness/ability with 14.9% and No strategy with 9.04% were the first and second most used strategies respectively.

Bringing an excuse; reason or explanation was among the most frequent indirect strategies used by the respondents. The respondents used these strategies to talk to a person of more or equal power in all situations except for situation 7, talking to a cleaning lady and situation one (refusing to increase the pay of a worker as a bookshop owner). The respondents used regret as a strategy to refuse the request in the first 6 situations. Since the first 6 situations required the respondents to talk to a variety of people within different social distances such as, worker, classmate, president of a company, executive of a company, friend, boss it proves that regret can be entitled as one of the most frequent strategies used in terms of social distance. The fact that 2.22% of the respondents used wish in situation 4 statement to refuse a suggestion and never used this strategy for other situations, places this strategy among the least frequent strategies used by the respondents.

The different point with regard to the use of strategy is concerned with situation one and seven. Negative willingness/ability was the most utilized strategy by respondents in situation one whereas respondents made use of "let interlocutor off the hook" to refuse to receive money from the cleaning lady by statements such as "don't worry about it", "Be clam. No problem", "It doesn't matter. Forget it", "It's not important", "Don't bother yourself" in situation seven as the most utilized strategy.

Statement of regret with 15.1% and attempt to dissuade interlocutor with 5% were the second and third most used strategies among the indirect types by respondents. Among adjuncts to refusal strategies, most respondents made use of appreciation strategy as well to refuse requests, invitations, offers and suggestions. Other strategies such as pause filler, statement of positive opinions, and statement of empathy were less opted out by learners to perform the speech act of refusal. The findings are illustrative of the fact that the variations in the use of different strategies are less seen in the data. In other words, learners employed almost the same semantic formulas or

pragmalinguistic forms to refuse affairs in most of the situations.

Therefore, it can be said that learners might not have enough awareness or consciousness regarding the use of different pragmalinguistic forms in performing the refusal since they did not have sufficient understanding of context and contextual factors involved as well. The justification is that they almost made use of the same strategy or linguistic formulas in performing the speech act of refusal since each situation differed in terms of social power, distance and imposition involved.

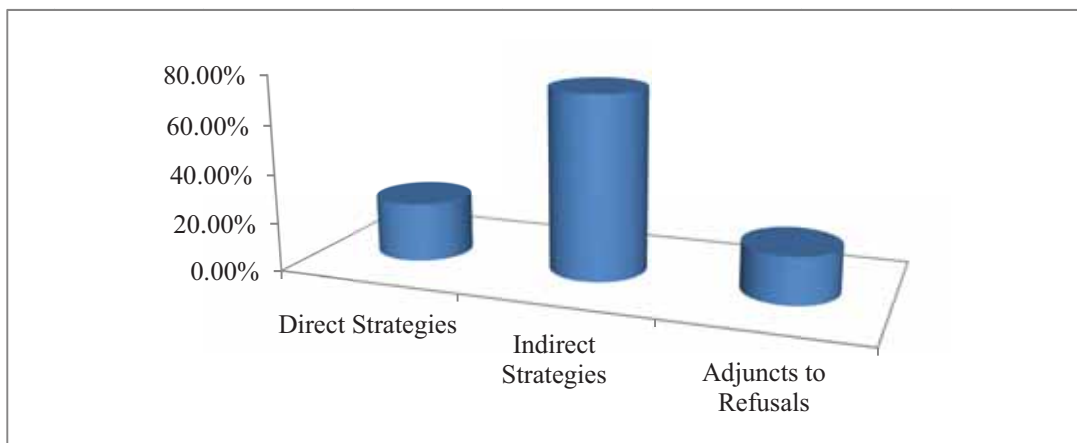


Figure 1. Refusal strategies across all the situations

The above bar chart displays the distribution of different types of strategies used in the production of refusal speech acts. As it can be seen in the figure, the most strategies employed by learners belong to the indirect type while the least opted ones are pertinent to the adjuncts to refusal strategies. Less learners utilized direct type to perform the refusal compared to indirect and adjuncts to refusal types.

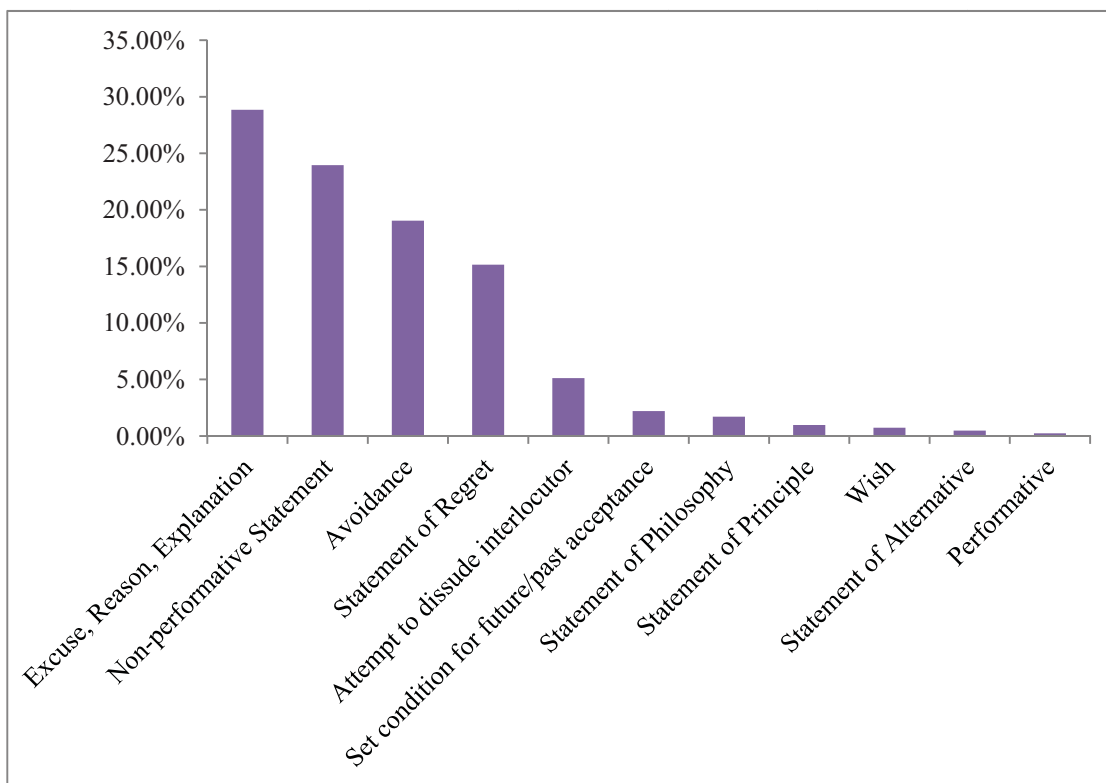


Figure 2. The most frequently used refusal strategies in all situations

The above bar graph illustrates the most utilized strategies in all the situations by learners. As can be seen, most

learners justified or explained about the situation to refuse. This strategy belongs to indirect type. Other strategies used by learners were non-performative statements, avoidance, statement of regret, attempt to dissuade interlocutor, set condition for future/past acceptance, statement of philosophy, wish statement, statement of alternative and performative respectively.

4. Discussion and Conclusion

The results of WDCT with regard to how learners refuse requests, invitations, suggestions and orders showed that learners mostly refused invitations, requests, suggestion and orders indirectly in various situations. In other words, they employed the indirect strategies (74.9%) nearly three times more than the direct ones (24.1%). The three most utilized strategies among the indirect type were excuse, reason, explanation (28.8%), statement of regret (15.1%) and gratitude (10%). Therefore, it can be concluded that the learners do not have sufficient pragmatic knowledge (both paralinguistics and sociopragmatics) in producing the speech act of refusal in different situations. This finding is consistent with that of Knwo (2004) who found out that Korean learners utilized more different reasons and more indirect expressions to make the refusal. Lin (2014) also showed that Chinese EFL learners employed the indirect strategies more than direct and adjunct strategies. Contrary to these findings, Vaezi (2011) found that Iranian EFL learners directly refused using no statement, negative willingness/ability like no, never, I can't, sorry. Likewise, Abu Hamaeid (2013) showed that Iraqi EFL university students mostly used negative ability to refuse requests in all the situations.

The overuse of refusal indirect strategies by Iranian EFL learners can be supported by Eslami (2010) claim that a refusal is an action which is dispreferred and it potentially threatens the hearer's face, therefore, it should be performed by means of indirect strategies. Moreover, it necessitates the face-saving trials to fulfill its non-congruent nature and avoid clashes as well as the lengthy sequences of debate and cooperative achievement (Gass & Houck, 1992). Therefore, it is necessary to teach this speech act to learners due to its intricate nature and intrinsic venture in offending the hearer.

Based on the results of this study, it is suggested that although learners' L2 pragmatic knowledge was investigated by means of WDCT, future studies can utilize other data collection instruments such as role-plays or other tasks. In addition, the politeness strategies examined in this study were power, social distance, and imposition of the task. Further studies can investigate other politeness strategies or situational factors, such as age and gender of interlocutors in situations.

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The Relationship Between Military Expenditure and Economic Growth in Some Middle Eastern Countries: What Is the Story?

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Abstract

How the military burden affects economic growth, especially in developing countries, is the subject of much research in the economic literature. Studies have varied on the findings of the effects of military expenditure (ME) on growth. Therefore, we see multiple schools of thought about the relationship between ME and economic growth. However, there is a consensus that ME does in general come at an economic cost.

In this paper, we use annual time series data on ME, economic growth, net export (NX), and central government expenditure (GE) in Israel and its four Arab neighbors for the period 1988-2010 to investigate the relationship between ME and the other variables for each country individually. The paper uses the unit root and cointegration techniques to determine the relationship between ME and GDP. To investigate the direction of causality between ME and GDP, we use Granger-Causality method.

The main conclusion is that “relative” peace time doesn’t mean countries will stop or reduce ME. The rate of ME growth might not be as fast as it is during war times, but it is affected positively by the local income and the economic situation of the country.

Keywords: military expenditure, economic growth, Middle East, relative peace

1. Introduction

A central question that occupied the minds of economists, political scientists, and policy makers, who are interested in studying economic growth and militarization in developing countries, is whether the Military Expenditure (ME) is a burden on the national economy and to what degree is the size of this burden in times of peace and war? What are the mechanisms that this ME affects the macroeconomic indicators like saving, investment, external debt, private and public consumptions, and most importantly the growth in GDP?

The direct comparison between ME and economic growth appears to be of non-sense since each one of them requires the other to exist, but the question about the size of the burden is still so important since it tries to find answers about methods of financing and direct and indirect effects. All comes to the most important question: What is the ideal level of ME, or how much is enough to achieve the security level required to achieve the continuity of the development process?

The importance of the question comes from the fact that the military sector uses large size of the limited resources of any society. Those scarce resources have alternative uses in the productive sectors of the economy. Transferring any productive resource(s) from civilian to military sectors will lead not only to a decrease in the level of civilian sector production, but also means less resources available to be used by the military sector in the future. This idea does not suggest necessarily that a cut in ME will lead to a better standard of living in the society, since it depends on the ways of allocating resources. Depending on the framing of the research, studies have varied on the findings of the effects of military expenditure on growth (Dunne & Tian, 2015).

Until recently, there has not been a scholarly consensus on the effects of ME on economic growth. One consensus, after a vast amount of research, is that military expenditure does in general come at an economic cost. The lesson might be that if one wants to have any hope of becoming (militarily) strong, one should invest in

one's economy (Dunne & Tian, 2015). It is important to point that this study does not intend to conclude if the ME is "good or "bad" rather than trying to measure the economic effects of this expenditure on the performance of the national economy.

The rest of this paper is organized as follows: Section 2 provides theoretical and literature review for the relationship between ME and economic growth. Section 3 gives discussion for the methodology used and gives a brief look at data Sources. Section 4 gives discussion for the methodology used and the empirical results. Finally, Section 5 concludes the study.

2. The Relationship between ME and Economic Growth

There are a few schools of thought about the relationship between ME and economic growth:

The first school is Beonit School. This school came to counter the classical economic thoughts. Benoit (1973 and 1978) came to the conclusion that there is a trade-off between growth and ME in developed countries but there is no evidence of such a relationship in developing countries (Benoit, 1973).

Benoit and his followers argue that there is a positive causality of ME on economic growth through few channels. First, the ability of the military establishment of using idle capital and human resources not used effectively in other economic sectors, second, the military establishment helps create and develop skills used by the labor force and develop management and organizational experiences that are needed for growth. Also, it helps to reduce the production cost and increase the production function through spending on research and development. Third, the effect of ME can be seen in what is called "Modernization" factor through the military establishment attempts to make structural change to the traditional economic and social relations in the society. In some cases, this took a violent nature (Deger & Sen, 1983). Fourth, the ME has some investment aspects through building roads, airports, seaports, and factories intended for military use, but have civilian use. They all fall in the category of accumulative capital formation. Therefore, the increase of ME may lead to an increase in total investment in the economy. However, this result is confirmed with some other worked done by Cohen & Ward (1996) and Yildirim, Sezgin, & Ocal (2005).

The second school argues that ME diverts resources away from more productive government uses like health and education (Lim, 1983). This school is in accordance with the classical economic school which views the military as a non-productive sector. Also, the security services that this sector provides to the society cannot be measured accurately to determine the efficiency level of the usage of resources. This is particularly important through the periods of peace between the state and its neighbors. Whether the ME is financed through taxation or borrowing, it will have economic and social costs. Many papers found such a negative relation like, Moran (1979), Linden (1992), Abu-Qarn (2010) and Bandirma (2015).

There are five main negative effects of ME on the economists of Less Developed Countries (LDC):

First, the government production suffers from heavy bureaucracy and low production rates. Second, if exports are the catalysts for growth, then ME will lead to dangerous misallocation of resources from the most productive sectors in the economy. Third, usually if ME is financed through borrowing, then it leads to larger external debt. Fourth, the use of research and development in the defense industry may harm the technological and productive base in the civilian sector. And finally, the crowding-out effect of ME through the use of more investment which creates inflation pressure that removes private investment out of the market (Chan, 1985).

The third school of the relationship between ME and economic growth argues that the causality is bi-directional. Proponents of this school point that higher defense spending causes economic growth, and economic growth leads to higher ME (Cappelen, Gleditsch, & Bjerkholt, 1985) and (Kusi, 1994). This result is also confirmed by Chowdhury (1991) and Looney (1992).

The fourth and last school about the matter, states there is no relationship between ME and economic growth (Biswas & Ram, 1986).

As much literature investigating the relationship between ME and economic growth, both empirically and theoretically, as little consensus on that kind of effect could be. The growth literature and defense economics literature come to contradictory conclusion. While the mainstream growth research does not find ME as significant in determining growth (Sala-i-Martin, Doppelhofer, & Miller, 2004), research in the defense economics field finds military expenditure to be a significant determinant of growth (Smith, 2000).

The fundamental conclusion is that the military spending-growth relationship is complex, and cannot be explained by the existing models (Deger, 1986), or even more advanced models (Dunne, Smith, & Willenbockel, 2005). We need to look in more depth about the nature of the growth process, the demand and supply effects, and

the nonlinearities of the effects of ME on growth in order to understand the process appropriately (Deger, 1986).

3. Methodology Data Sources

Different methods used to investigate the ME growth relationship. Cross sectional data analysis was used in some studies like Benoit (1978). Other researchers followed this path and found conflicting results (Ram, 1995). Among other criticisms of the cross-sectioned data model that it leads to the difficulty of interpreting the estimates since it "assumes" identical parameters for different countries (Ram, 1995). It also contains the danger of assumption of homogeneity of countries in the sample (Sandler & Hartley, 1995) which is clearly not the case in our sample. That makes the choice of cross-sectioned data not appropriate here.

On the other side, the use of panel-data allows the researcher to investigate different kinds of cross-country variations, allows for higher degrees of freedom, but it has some limitations. First, it has the potential to have a significant cyclical or random component. Second, it reduces the amount of information about individual countries and might bring us back to time series data (Ram, 1995). Based on the above discussion, we decided to use annual time series data to analyze the ME-growth relationship for each country individually.

The data used in this paper are annual time-series for the period 1988-2010. This period represents the "Relative Peace" period for a few reasons. First, the end of the civil war in Lebanon in 1989 brought the central government in that country to be in control of the military affairs and as a result, Lebanon ME was recorded. Second, the Madrid Conference was held in 1991 to restart the peace process in the region.

Third, the Oslo negotiation started between Israel and the Palestine Liberation Organization (PLO) and the two rivals signed the peace declaration in 1993. Fourth, the Jordanian-Israeli Peace Treaty was signed in 1994 and ended the conflict between the two counties. Fifth, Syria and Israel had face-to-face negotiations for the first time. Even the negotiation did not end with a peace treaty; it reduced the tension between the two countries to a large degree. Last but not least, Israel withdrew from Southern Lebanon in this period was a major step to reduce the tension between Israel and its northern neighbor. Studying the ME growth relationship in this period, we believe, is a crucial issue to see if the established hypotheses still hold in a time of relative peace.

Data on GDP, net export, and central government expenditure were obtained from the UN statistical database and data on the ME comes from the Stockholm International Peace Research Institute (SIPRI) database on military expenditure. SIPRI database considered the best source for such data since it is the only source among others that provides ME for all the counties in the study for the entire period.

However, even where military expenditure data is published by national governments, these data may be subject to a number of problems that may limit international comparability and a proper understanding of the economic burden of the military on the country. One problem is that different countries define ME differently. SIPRI always seeks data as close as possible to its definition, but this is not always available.

In addition, there are some potential hurdles relating to the reliability, transparency, and comprehensiveness of the ME data. Data sources may or may not be accurately reporting ME, and there is a question of what the source countries are actually measuring. In some countries, especially lower-income countries with limited state capacity, the systems for financial monitoring and control in the military sector and elsewhere may be weak. Actual levels of expenditure may be incompletely recorded or actively falsified, due to corruption.

All the issues discussed here highlight the problems with the data used in our analysis and show that these data are not the authors' ideal measure of ME. However, it is the best data accessible to the authors for the purpose of the analysis.

4. The Model, Results and Discussion

We start with a look at the correlation coefficients among the four variables for each country. Table 1 shows the results. It appears that ME varies in its correlation with the other three variables from high positive correlation with GDP in the case of Syria to highly negative with Net Export (NX) in the case of Jordan. Except for Egypt, ME and GDP have a high correlation coefficient which indicates that there might be more to their relationship. As mentioned above, if both the ME and GDP have high correlation in the period of study, then it is very reasonable to expect that at least one of them to have some effect on the other.

The reason we see to include Net Export is that the counties covered by the study are non-oil producers. Therefore, they try to diversify their revenues through export oriented policies and encourage foreign investments. At the same time, the counties became more and more dependent on imported goods and services as there population increases and the demand for new products increases. That means to measure openness to trade for these countries; it is not enough to look at either imports or exports, but rather on Net Export.

The use of Granger-Causality in this study comes mainly from our interest in the direction of causality between the ME and GDP. We are not looking to see if they have a significant relationship, but to see the direction of the impact, if it exists, from one of them to the other. Despite the criticisms this approach received, it is still popular and can bring the intended results if data is tested and corrected for unit roots and cointegration (Abu-Qarn, 2010) and (Dunne et al., 2005). More than that, the test is still popular in the field and we intend to use it.

Second step is to test the variables for stationarity. We used augmented Dickey–Fuller test (ADF) test. The results are reported in Table 2. The four variables in all the countries are non-stationary at their levels and they are stationary at first difference. After taking the required difference in the time series to establish stationarity, we checked for cointegration to see if the variables have a long-run relationship with each other. We used Johansen test for that purpose and the results are reported in Table 3. The null hypothesis of no cointegration was rejected for all the countries except Syria. This indicates that except for Syria, there is a long-run relationship between the four variables in the sample. That means we do not expect to see a causal relationship between the variables in the case of Syria.

Based on the Johansen test result, the need for an error correction term is crucial to capture the long-run relationship.

To see if there is a Granger Causality between ME and economic growth, we used the following error-correction model for each country where all the variables are expressed in the appropriate differences to guarantee stationarity.

$$G_t = \alpha_o + \sum_{i=1}^{n1} \alpha_{1i} G_{t-1} + \sum_{i=1}^{n2} \alpha_{2i} M_{t-i} + \sum_{i=1}^{n3} \alpha_{3i} GE_{t-i} + \sum_{i=1}^{n4} \alpha_{4i} X_{t-i} + \lambda EC_{t-i} + e_i$$

where: G is economic growth; M is military expenditure (ME); GE is government spending; X is net export (NX); and EC is the error-correction term obtained from the multivariate cointegration relationship; and n is the lag orders in the polynomials of α 's.

To test the other possible direction of the causality, that economic growth Granger Causes ME, we use a similar equation with ME as the dependent variable:

$$M_t = \beta_o + \sum_{i=1}^{m1} \beta_{1i} M_{t-1} + \sum_{i=1}^{m2} \beta_{2i} G_{t-i} + \sum_{i=1}^{m3} \beta_{3i} GE_{t-i} + \sum_{i=1}^{m4} \beta_{4i} X_{t-i} + \varphi EC_{t-i} + \mu_i$$

Our focus is to see if the coefficients α_{2i} and β_{2i} which represent the short-run Granger Causality and λ and φ which represent the long-run causality are statistically significant. The preliminary empirical results of the above two equations are reported in Table 4. It seems that the results are mixed. For Egypt, ME appears to not Granger Causes economic growth while the opposite relation appears to be there, means economic growth causes higher ME. For Israel, we see the same results as for Egypt. For Jordan, we can see a bi-directional impact. That means ME and growth Granger Causes each other. The same result can be seen in Lebanon. And for Syria, as expected from the integration test, ME and growth do not Granger Cause each other which means they have no relation.

Regarding the causality between ME and NX, the paper found a solid direction from ME to NX for the four countries except Lebanon, however, the opposite direction was proven this time only to Lebanon. This result may contradict the first causality which was complete causality direction from economic growth to ME finding since NX is a main part of GDP and economic growth, and thereby should have similar effect and directional of causality like economic growth. However, this can be attributed somewhat to the importance of economic growth as a whole not just any part of it (NX).

Regarding the causality between ME and GE, it was clear for the four countries (except Jordan) that if governments increase/decrease their spending, similar effect will happen to ME since the latter is a main part of government expenditure. Regarding Syria, none of the above causality relationships were found significant. These no causality results are consistent with the results of finding no cointegration relationship among the variables for the Syrian case.

As we mentioned earlier, the cointegration test result indicated no relationship among the variables in the case of Syria and that is confirmed by the Granger Causality Test. No variable is Granger Causing any other variable in the case of Syria.

5. Conclusion

In this research paper, we tried to trace the behavior of military expenditures in times of (relative peace) for countries surround Israel (Jordan, Egypt, Lebanon, and Syria) in addition to the former. The relationships of ME with main economic indicators were tested for countries for the annual time period (1988-2010). The methodology of this study involves using a number of econometric techniques; in particular, Unit Root test, Cointegration analysis, and Granger Causality test.

Analyzing the relationship of 3 main economic variables; GDP, NX and GE, with the ME, found that these 4 variables have cointegration relationships for all 5 countries except Syria. This means that for this country significant meaning statistical relationships and causality directions cannot be found. With the regard to the other countries, even though there were cointegration relationships among the variables of interest, the results for causality appear to be mixed.

The results of the econometric techniques show that there is a consensus in the direction from economic growth to ME. That was true for all four countries. However, the opposite direction, i.e. from ME to economics, was proven only for Jordan and Lebanon. That is, for these two countries, ME experiences a promoting factor that helps enhancing economic growth.

In this paper, we achieve a main conclusion that “relative” peace time doesn’t mean countries will stop or reduce ME. At the same time, ME might not grow at fast rates as war times, but for sure it is affected positively by the local income and the economic situation of the country.

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Appendix

Table 1. Correlation coefficients

Country	Correlation Coefficient of ME with:		
	GDP	NX	GE
Egypt	0.336	0.288	0.327
Israel	0.691	0.411	0.753
Jordan	0.832	-0.812	0.929
Lebanon	0.721	0.490	-0.322
Syria	0.853	0.491	0.831

Table 2. Stationarity test results for variable at level (5% critical value)

Country	Variable	Statistic	Lag	Trend	Variable	Statistic	Lag	Trend
Jordan	GDP	-0.098	2	Yes	DGDP	-3.347*	2	No
	NX	-0.669	1	No	DNX	-4.969*	0	No
	GE	0.805	4	No	DGE	-2.887*	2	No
	ME	0.024	1	No	DME	-4.559*	0	Yes

Egypt	GDP	0.007	2	Yes	DGDP	-2.787*	2	No
	NX	-0.026	1	No	DNX	-3.355*	0	No
	GE	-0.218	3	Yes	DGE	-2.827*	2	No
	ME	-1.584	2	No	DME	-2.625*	1	No
Syria	GDP	-1.275	1	Yes	DGDP	-5.823*	0	No
	NX	-1.898	1	No	DNX	-5.528*	0	No
	GE	0.942	2	No	DGE	-4.356*	1	Yes
	ME	-1.162	1	No	DME	-5.833*	0	No
Lebanon	GDP	-0.421	1	No	DGDP	-3.968*	1	No
	NX	-2.034	1	No	DNX	-7.096*	0	No
	GE	-1.047	4	No	DGE	-5.778*	0	No
	ME	-1.480	1	No	DME	-7.038*	0	No
Israel	GDP	-2.251	1	Yes	DGDP	-4.186*	0	No
	NX	-0.087	1	No	DNX	-5.245*	0	No
	GE	-3.449*	1	Yes	DGE	-3.466*	2	No
	ME	-1.487	2	No	DME	-6.923*	0	No

Note. (L) stands for optimal lag. It is determined using LAG using AIC

(*): means significant at 5% level or better.

Table 3. Johanson Cointegration test results

Country	Null Hypothesis	Test Statistic
Egypt	$r = 0$	91.808***
	$r \leq 1$	39.392***
	$r \leq 2$	14.394
	$r \leq 3$	4.662**
Israel	$r = 0$	81.156***
	$r \leq 1$	30.213**
	$r \leq 2$	11.333
	$r \leq 3$	3.918**
Jordan	$r = 0$	88.366***
	$r \leq 1$	41.325***
	$r \leq 2$	13.292
	$r \leq 3$	4.018**
Syria	$r = 0$	40.821
	$r \leq 1$	21.493
	$r \leq 2$	9.182
	$r \leq 3$	2.215
Lebanon	$r = 0$	73.572***
	$r \leq 1$	30.780**
	$r \leq 2$	11.590
	$r \leq 3$	1.193

Note. *** Significant at 1%, ** Significant at 5%

Table 4. Granger causality test directions

Jordan			Egypt		
NX	↔	GDP	NX	-	GDP
GE	↔	GDP	GE	←	GDP
ME	↔	GDP	ME	←	GDP
GE	→	NX	GE	←	NX
ME	↔	NX	ME	→	NX
ME	←	GE	ME	←	GE

Lebanon			Syria		
NX	→	GDP	NX	-	GDP
GE	-	GDP	GE	-	GDP
ME	↔	GDP	ME	←	GDP
GE	←	NX	GE	-	NX
ME	←	NX	ME	←	NX
ME	→	GE	ME	-	GE

Israel		
NX	←	GDP
GE	←	GDP
ME	←	GDP
GE	→	NX
ME	→	NX
ME	↔	GE

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Investigating the Moderating Role of Enjoyment in the Relationship between Brand Image, Service Quality, and Convenience in Search and Purchase Behaviour in Multichannel Retailing

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Abstract

Multi-channel shopping is a purchasing pattern by which consumers use multiple channels, such as the Internet, catalogue, mobile, and brick-and-mortar stores, to make purchases. The aim of this research was to investigate the factors affecting search online and purchase offline. Data collection was conducted using an online survey administered to a consumer panel in the US. Retrospective sampling was adopted for the study and the sampling framework for the present research consisted of consumers who had recent shopping experience with the offline channel and search experience using the online channel of a retailer. The results illustrated that all research question are not significant and were not effective on search online and purchase offline; however, brand image on online and offline channel had a significant effect on attract consumers to search online and purchase offline. This study had that consumer perception and satisfaction with service, brand image, and convenience has positive and significant effects on future intentions to search online and purchase offline. This study showed the role of search online as a mediator in the relationship between brand image, service quality, and convenience with offline purchase.

Keyword: brand image, enjoyment, service quality, purchase behaviour, multichannel retailing

1. Introduction

With advances in the Internet and information technology, more and more MCS is performed through both Internet and physical stores. A majority of consumers (67 percent) still prefer to purchase in physical stores (Pauwels et al., 2011), while using the Internet for information search regarding product features and prices (Mendelsohn et al., 2006). The practice of searching for information online and then choosing to buy in a physical store denotes both an opportunity and a threat to retailers (McIver et al., 2009). This strategy of researching online and buying offline has been coined 'web-to-store' shopping or 'research' shopping (Verhoef, Neslin, & Vroomen, 2007). What is lacking is an understanding of why people choose to buy in-store after online information search, and what factors motivate consumers to buy from one channel rather than another.

Despite the ongoing interest by scholars in multichannel shopping, there is a lack of knowledge on issues associated with search online – purchase in-store behaviour. Factors that influence consumers to buy online, such as website design and product category have received substantial attention in the online consumer behaviour literature (McIver et al., 2009). However, there is very little research examining the how brand image, service quality and convenience influence on online and offline channel usage. Specifically, limited research has investigates how brand image, service quality and convenience lead to search online purchase offline behavior. Furthermore, a key limitation of previous studies concerns their focus on the online or offline store as a single channel (Verhagen & Van Dolen, 2009). Online or offline activities cannot be considered in isolation, because they take place within the broader context of marketing activities conducted simultaneously (Peterson, Balasubramanian, & Bronnenberg, 1997; Karimi Takalo et al., 2013).

In picking up on the issues raised in the literature this study seeks to understand how consumers' enjoyment in the offline shopping influences the impact of perceived service quality, brand image, and shopping convenience on consumers' search using online channels and shopping behaviour in the offline channels. And also, this study investigates the role of search online as a mediate in the relationships between service quality, brand image, and

convenience with offline purchase. Practitioners can use these relationships and apply them in multichannel to attract more consumers to purchase from both online and offline channel.

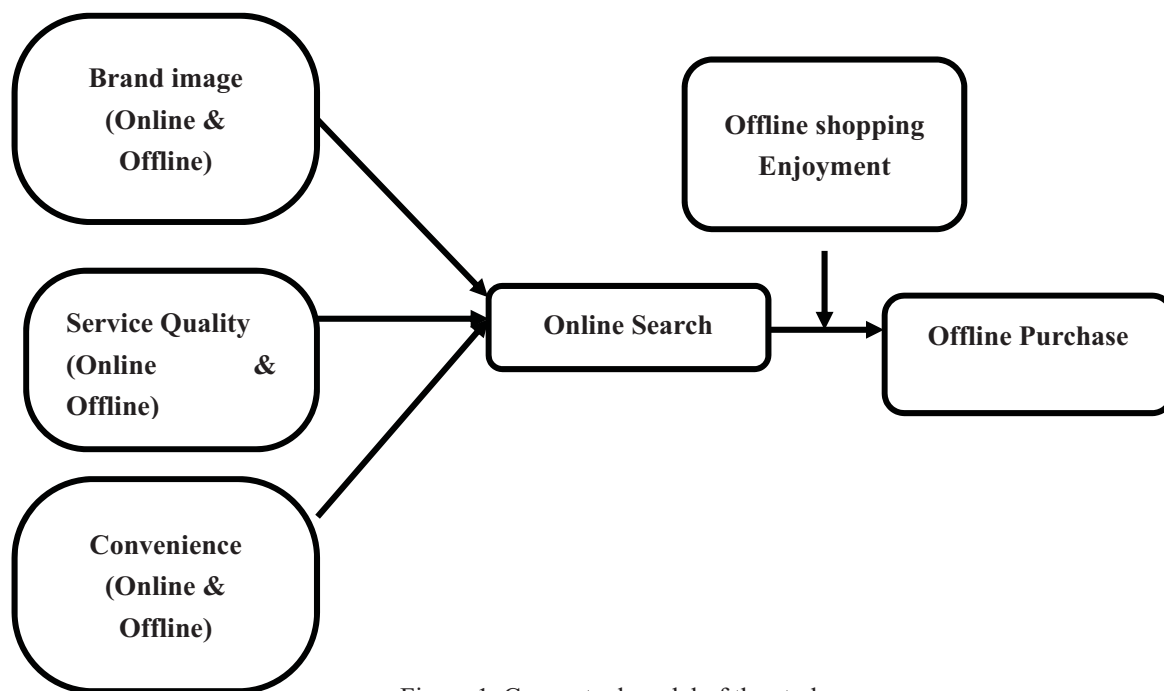


Figure 1. Conceptual model of the study

2. Conceptual Framework and Research Questions

The objective of this study is to understand why consumers search in online channel and purchase in offline channel and also retailers need to understand which channels consumers use to search or purchase.

2.1 Multichannel Retailer Brand Image: Offline and Online

Brands are an important tool for consumers to organise information and make their decision making simple in both online and traditional stores (Bergstrom, 2000). A brand’s marketing activity is influenced by consumers according to the brand’s image or associations with their past experiences with the brand (Brady et al., 2008; Keller, 1993).

Most brick-and-click retailers try to exploit the halo effect from their existing offline image by operating under the same retail brand name in both offline and online channels, even though their offline and online retail services may differ (Kwon & Lennon, 2009).

According to (Lee et al., 2007) consumers' experiences with a firm in one channel may affect their perceptions and beliefs about the same firm in another channel. Therefore, based on consumer’s experience in online and offline channel, they may form and update their brand images of a multichannel retailer (Kwon & Lennon, 2009). Therefore, offline brand image is expected to lead to purchase offline, with online search playing a mediating role in this relationship. Thus, the following research question is posed:

RQ1a: *To what extent does online search mediate the relationship between offline brand image and offline purchase?*

According to Yang et al. (2012) the benefits of online channel lead to the use of online channel. This study expects that online search can lead to offline purchase due to consumer enjoyment of offline shopping.

Dennis et al. (2005) report that offline shopping enjoyment is considered as a motivation for brick-and-mortar shopping, as opposed to shopping on the Internet. The importance of enjoyment to modern physical store is clear (Hart et al., 2007). While the online channel is a useful channel to compare information about various products, offline shopping enjoyment may be more important to those high on this trait, and lead them to have lower tendency to make a purchase online. Thus, the following research question render as important:

RQ1b: *Is the mediating effect of online search in the relationship between offline brand image and offline purchase moderated by offline shopping enjoyment?*

According to Kwon and Lennon (2009) a National Survey reports that online respondents would be less likely to shop from the retailer's offline store (40 percent) after a negative experience, their opinion of the retailer/brand was negatively affected (60 percent), and would not return to the site to search or purchase (80 percent).

The use of different channels to acquire information about and to buy a product may provide consumers with economic benefits (e.g., online price may be lower) and psychological benefits (feeling smart) (Dolen & Verhagen, 2009). Dolen and Verhagen (2009) suggested that searching on the Internet may provide consumers with price information, allowing them to obtain a better price in a store. Therefore, online channels lead consumers to access data online to make shopping comparisons and evaluate prices without being pressured by salespeople.

Kwon and Lennon (2009) show that online brand image causes online consumer loyalty which can be a factor to move consumers to search online. Thus, the following research question is posed:

RQ2a: *To what extent does online search mediate the relationship between online brand image and offline purchase?*

However, the motivations for offline channel choice are mostly connected to experience in offline shopping by the offline shopping enjoyment. Thus, the following research questions render as important:

RQ2b: *Is the mediating effect of online search in the relationship between online brand image and offline purchase moderated by offline shopping enjoyment?*

2.2 Service Quality: Offline and Online

Perceived service quality involves the consumer's judgment about the extent of superiority or excellence of the product (Zeithaml, 1988). Different studies focus on online service quality which can be split into two categories: online retailing services and website design quality. Zeithaml et al. (2002) and Parasuraman, Zeithaml and Malhotra (2005) study that Internet service quality which is defined as the degree to which a web site facilitates effective and efficient purchasing.

According to Shine et al. (2013) the perceived quality of an online shopping influences satisfaction; and that satisfaction influences consumer online loyalty which can be lead to online search. Thus, the following research question is posed:

RQ3a: *To what extent does online search mediate the relationship between online service quality and offline purchase?*

While according to Yang et al. (2012) the benefits of online channel lead to purchase from online channel, based on a similar argument as above, this study expects that online search, as the benefit of online channel, can be lead to offline purchase due to consumer enjoyment of offline shopping. Thus, the following research question renders as important:

RQ3b: *Is the mediating effect of online search in the relationship between online service quality and offline purchase moderated by offline shopping enjoyment?*

Liu and Guo (2008) demonstrate that offline service quality can lead to offline loyalty by providing good customer service to consumers. Offline service quality is not available or reachable, consumers will perceive that companies are not intending to solve their problems or trying to hide something (Katawetawaraks et al., 2011), so lose their loyalty. It can be assumed, therefore, that the consumer will leave with a more favourable impression or positive image of the retail encounter or at least individual service encounter or individual store if employees display positive attitudes or sufficiently impress the consumer. Customer service quality can therefore be considered a dimension of the holistic physical store image in that it represents the 'augmented product' that supports the basic merchandising function of the shopping store (Sit et al., 2003). Chen (2008) suggests that consumer perceptions of service quality and satisfaction with the service have positive and significant effects on future intentions to purchase. Based on a similar argument to that advanced above, it is argued here that offline service quality can lead to offline loyalty, then online search. Consumers access information from online channel but they prefer to purchase offline. Thus, the following research question is posed:

RQ4a: *To what extent does online search mediate the relationship between offline service quality and offline purchase?*

While Yang et al. (2012) show that, the benefits of online channel such as online search lead to purchase from

online channel, this study expects that online channel can be lead to offline purchase due to customer enjoyment of offline shopping. Thus, the following research questions render as important:

RQ4b: *Is the mediating effect of online search in the relationship between offline service quality and offline purchase moderated by offline shopping enjoyment?*

2.3 Convenience: Offline and Online

Convenience is acknowledged to be increasingly important to consumers (Berry et al., 2002). Convenience is defined in terms of saving time and effort, including physical and mental effort (Nicholas et al., 1978). In general, shopping convenience is one of the reasons that many shoppers enjoy shopping (Shin et al., 2013). Time-poor consumers require a lot of value from the limited hours available and may be willing to pay more money to enjoy their leisure time (Engel, Blackwell, & Miniard, 1995; Akaah, et al., 1995). Retailers currently develop strategies to enable consumers to save time by making the shopping process less time consuming and more convenient (Berry et al., 2002). The efficiency of shopping has been recognized to be a key influencer of consumer behaviour in the offline context (Engel et al., 1995; Kerin et al., 1992).

Changing consumer lifestyles and lack of time may make it more difficult for consumers to search and shop at physical locations such as stores (Davies, 1995, Cheeseman & Breddin, 1995). In addition, it would take a short time to search at the website and buyers could search from the website without much help (Shin et al., 2013). Therefore, online convenience can lead to search online. Thus, the following research question is posed:

RQ5a: *To what extent does online search mediate the relationship between online convenience and offline purchase?*

Moreover offline shopping enjoyment is found as a major driver that exerts a pull on shopper's visit to a physical store (Dawson et al., 1990; Koufaris et al., 2002). Thus, despite the previous empirical research in that convenience of the Internet impacts on consumers' willingness to buy online (Wang et al., 2005), this study expects that online search can be lead to offline purchase due to customer enjoyment of offline shopping. Thus, the following research question render as important:

RQ5b: *Is the mediating effect of online search in the relationship between online convenience and offline purchase moderated by offline shopping enjoyment?*

Convenience is defined in terms of saving time and effort, including physical and mental effort (Williams et al., 1978). In addition, accessibility of the store (location and hours of availability) has been included in some conceptualizations of offline convenience (Corby, 1994).

The implication of transaction inconvenience is converging nonmonetary cost (time and effort) and monetary cost before consumers experience any benefits (Berry et al., 2002). Thus, the following research question is posed:

RQ6a: *To what extent does online search mediate the relationship between offline convenience and offline purchase?*

It is argued that shopping enjoyment increased consumers' satisfaction with the store, amount of time spent in the store and spending levels (Forsythe & Bailey, 1996). Those who enjoy shopping always look for the attractive décor in the stores as well as exciting shopping experience (Wong et al., 2012). It is argued that online channel is a good way to collect information and offline channel can attract consumers because of shopping enjoyment including window shopping and fun. Thus, the following research questions render as important:

RQ6b: *Is the mediating effect of online search in the relationship between offline convenience and offline purchase moderated by offline shopping enjoyment?*

3. Methodology

3.1 Sample

The sampling framework for the present research consisted of consumers who had recent shopping experience with the offline channel and search experience using the online channel of a retailer. Data collection was conducted via an online survey administered to a consumer panel in the USA. Retrospective sampling was adopted for the study which is characterized by allowing respondents to reflect on their recent shopping and purchase experiences with the online and offline channel in responding to the survey instrument. Respondents had to have made a purchase in the bricks and mortar outlet (i.e., retail store), as well as the online search of the same retailer in the last 6 months. In this sense, the data set is neither firm nor product category specific. The choice of retrospective experience sampling employing panel members is also consistent with previous retail

studies (Kwon & Lennon, 2009; Yang et al., 2012; Shin et al., 2013). The panel includes registered members. The invitation and link of survey was sent to 250 panel members via email. Out of 250 sent survey, 200 members agreed to participate. Out of 200 distributed surveys, 186 completed and useable surveys were received.

3.2 Measures

Each construct in this study was measured with multiple items, and all of these items were adopted from the extant literature by modifying the wording of the questions to fit the study context. Four of the constructs including online/offline service quality, online/offline convenience, and online/offline shopping enjoyment were assessed via multi-item measures using a 7-point Likert scale, with response choices ranging from one (Strongly disagree) to seven (Strongly agree). Online and offline brand image were assessed via multi-item measures using a 7-point Likert scale, i.e., Not at all (1) or very much (7). The survey also measured online/offline search and online/offline purchase variables. These are measured on a 7-point Likert scale, with (1) representing Not likely at all and (7) representing very likely on that measure. Five items on offline and online service quality were adapted from Yang et al. (2012) and measured the five components of perceived service quality: tangibles, reliability, responsiveness, assurance, and empathy. Offline convenience was measured with three items and online convenience was measured with four items adapted from Shin et al. (2013). Offline and online brand Image items are adopted from Aaker (1996) which measured the five components of online brand Image and seven components of Offline brand image. The remaining questions asked about offline and online enjoyment adapted from Kaufaris (2002) which measured three items. Offline and Online search adapted from Kau et al. (2003) which measured one item each and also, offline and online purchase which measured by one item adapted from Kau et al. (2003).

4. Results

4.1 Profile of the Respondents

Out of 186 completed surveys received, 46% are male and 53% are female. 55% of the respondents were between the ages of 15 and 61 years, with the mean age of 31 years old. Respondents are students (23.9%), homemakers (12.2%) and freelance (20.6%) occupations, and predominately 29.4% of respondents are in bachelor degrees and .6% is lower than high school diploma, and 73.9% of respondents is with income less than \$60,000.

4.2 Findings

In this study convergent validity was assessed by Cronbach's alpha to evaluate the reliabilities of constructs (Carlson & O'Cass, 2010). Cronbach's alpha can be described as a coefficient of reliability that measures how well a set of items measure a single uni-dimensional latent construct (i.e. inter-item consistency) and is estimated using the reliability analysis procedure in SPSS (Carlson & O'Cass, 2010). As shown in the Appendix 1, the Cronbach's alpha coefficient for all constructs was acceptable, ranging from 0.73 to 0.92.

A factor analysis with the principal component analysis with varimax was performed construct by construct. In particular, for online and offline convenience, the KMO measure of sampling adequacy was close to 1 and the Bartlett's Test of sphericity was significant, indicating that the sample size was sufficient for factor analysis. Also, all communalities were above 0.50. The total variance explained extracted was 79%, all items loaded on their respective constructs, with all factor loadings being above .50.

For online and offline brand image, the KMO measure of sampling adequacy was close to 1 and the Bartlett's Test of sphericity was significant, indicating that the sample size was sufficient for factor analysis. Also, all communalities were above 0.50. The total variance explained extracted was 77%, all items loaded on their respective constructs, with all factor loadings being above .50.

The online and offline service quality, the KMO measure of sampling adequacy was close to 1 and the Bartlett's Test of sphericity was significant, indicating that the sample size was sufficient for factor analysis. Also, all communalities were above 0.50. The total variance explained extracted was 72%, all items loaded on their respective constructs, with all factor loadings being above .50.

The analysis indicates that all constructs associated with outer-measurement models exhibited convergent validity and discriminate validity (Appendix 1- Table I) presents the loadings and reliability scores for each construct within sample. Therefore, to conduct data analyses, the composite scale of each construct was used by averaging the construct's respective items.

4.3 Test of Research Questions

Research question 1a focuses on the indirect effect of offline brand image on offline purchase through online

search. To test this effect, PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, offline brand image was the independent variable, search online was the mediator, and purchase offline was the dependant variable.

Table 1. The indirect effect of offline brand image on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Offline brand image	Online search	Offline purchase	.46**	.24**	.42**	.42**	.11	.02	.27

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value <.05

** : p-value <.01

Research question 1b investigates the indirect effect of offline brand image on offline purchase through online search by offline shopping enjoyment as a moderator. To test this effect, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, offline brand image was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 2. As can be seen, the interaction effect of offline brand image and offline shopping enjoyment on offline purchase was not significant with a regression coefficient of -.12 ($p < .10$).

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between offline brand image and offline purchase does not include the value of zero (LLCI = -.24, ULCI = -.005). Therefore, offline shopping enjoyment does not moderate the mediating effect of online search in the relationship between offline brand image and offline purchase. Therefore, in answering RQ1b, the mediating effect of online search in the relationship between offline brand image and offline purchase is not moderated by offline shopping enjoyment.

Table 2. The moderating effect of offline shopping enjoyment in the indirect effect of offline brand image on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
offline brand image	Online Search	Offline Purchase	Offline shopping enjoyment	-.12	.04	-.15	.00

Research question 2a investigates the indirect effect of online brand image on offline purchase through online search. To test this effect the PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, online brand image was the independent variable, search online was the mediator, and purchase offline was the dependant variable. The results are presented in Table 3. As can be seen, the main effect of online brand image on online search is significant with a regression coefficient of .51 ($p < .01$). The regression coefficient for the effect of online search on offline purchase is significant ($b = .27, p < .01$). The total effect of online brand image on offline purchase is significant with a regression coefficient of .27 ($p > .01$). The direct effect of online brand image on offline purchase is significant with a regression coefficient of .27 ($p > .01$). The indirect effect of online brand image on offline purchase mediated by online search is significant with a regression coefficient of .14 ($p < .01$). This is indicated by the bootstrapping confidence interval for this effect, which does not include

the value of zero (LLCI = .01, ULCI = .30), therefore, online search mediates the relationship between online brand image and offline purchase. Therefore, online search partially mediates the effect of online brand image on offline purchase as the indirect effect of online brand image on offline purchase is still significant. Therefore, in answering RQ2a, online search mediates the relationship between online brand image and offline purchase significantly.

Table 3. The indirect effect of online brand image on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Online brand image	Online search	Offline purchase	.51**	.27**	.27	.27	.14	.01	.30

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value <.05

** : p-value <.01

Research question 2b examines the indirect effect of online brand image on offline purchase through online search by offline shopping enjoyment as a moderator. To test this effect, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, online brand image was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 4. As can be seen, the interaction effect of online brand image and offline shopping enjoyment on offline purchase was not significant with a regression coefficient of -.11 ($p < .10$).

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between online brand image and offline purchase does not include the value of zero (LLCI = -.23, ULCI = .00). Therefore, offline shopping enjoyment does not moderate the mediating effect of online search in the relationship between online brand image and offline purchase.

Therefore, in answering RQ2b, the mediating effect of online search in the relationship between online brand image and offline purchase is not moderated by offline shopping enjoyment.

Table 4. The moderating effect of offline shopping enjoyment in the indirect effect of online brand image on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
online brand image	Online Search	Offline Purchase	Offline shopping enjoyment	-.11	.06	-.15	.01

Research question 3a investigates the indirect effect of online service quality on offline purchase through online search. To test this effect the PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, online service quality was the independent variable, search online was the mediator, and purchase offline was the dependant variable. The results are presented in Table 5. As can be seen, the main effect of online service quality on online search is significant with a regression coefficient of .50 ($p < .01$). The regression coefficient for the effect of online search on offline purchase is significant ($b = .27, p < .01$). The total effect of online service quality on offline purchase is significant with a regression coefficient of .22 ($p > .01$). The direct effect of online service quality on offline purchase is significant with a regression coefficient of .22 ($p > .01$). The regression

coefficient for the indirect effect of online service quality on offline purchase mediated by online search is significant ($b=.13, p<.01$). This is indicated by the bootstrapping confidence interval for this effect, which include the value of zero (LLCI = .00, ULCI = .33), therefore, online search mediates the relationship between online service quality and offline purchase. Therefore, online search partially mediates the effect of online service quality on offline purchase as the indirect effect of online service quality on offline purchase is still significant. Therefore, in answering RQ3a, online search mediates the relationship between online service quality and offline purchase significantly.

Table 5. The indirect effect of online service quality on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Online service quality	Online search	Offline purchase	.50**	.27**	.22	.22	.13	.00	.33

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value <.05

** : p-value <.01

Research question 3b examines the indirect effect of online service quality on offline purchase through online search by offline shopping enjoyment as a moderator. To test this effect, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, online service quality was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 6. As can be seen, the interaction effect of online service quality and offline shopping enjoyment on offline purchase was not significant with a regression coefficient of $-.13 (p < .10)$.

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between online service quality and offline purchase does not include the value of zero (LLCI = $-.25$, ULCI = $-.008$). Therefore, offline shopping enjoyment moderates the mediating effect of online search in the relationship between online service quality and offline purchase. Therefore, in answering RQ3b, the mediating effect of online search in the relationship between online service quality and offline purchase is not moderated by offline shopping enjoyment.

Table 6. The moderating effect of offline shopping enjoyment in the indirect effect of online service quality on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
Online service quality	Online Search	Offline Purchase	Offline shopping enjoyment	-.13	.03	-.16	-.001

Research question 4a investigates the indirect effect of offline service quality on offline purchase through online search. To test this effect the PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, offline service quality was the independent variable, search online was the mediator, and purchase offline was the dependant variable. The results are presented in Table 7. As can be seen, the main effect of offline service quality on online search is significant with a regression coefficient of $.65 (p < .01)$.

The effect of online search on offline purchase is significant with a regression coefficient of $.26 (p > .01)$. The

total effect of offline service quality on offline purchase is significant with a regression coefficient of .23 ($p > .01$). The direct effect of offline service quality on offline purchase is significant with a regression coefficient of .23 ($p > .01$). The indirect effect of offline service quality on offline purchase mediated by online search was significant with a regression coefficient of .17 ($p < .01$). This is indicated by the bootstrapping confidence interval for this effect, which does not include the value of zero (LLCI = -.006, ULCI = .37), therefore, online search does not mediate the relationship between offline service quality and offline purchase. Thus, in answering RQ4a, online search not mediates the relationship between offline service quality and offline purchase.

Table 7. The indirect effect of offline service quality on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Offline service quality	Online search	Offline purchase	.65**	.26	.23	.23	.17	-.006	.37

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value < .05

** : p-value < .01

Research question 4b examines the indirect effect of offline service quality on offline purchase through online search by offline shopping enjoyment as a moderator. To test RQ4b, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, offline service quality was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 8. As can be seen, the interaction effect of offline service quality and offline shopping enjoyment on offline purchase was not significant with a regression coefficient of -.11 ($p < .10$).

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between offline service quality and offline purchase does not include the value of zero (LLCI = -.24, ULCI = .00). Therefore, offline shopping enjoyment does not moderate the mediating effect of online search in the relationship between offline service quality and offline purchase.

Therefore, in answering RQ4b, the mediating effect of online search in the relationship between offline service quality and offline purchase is not moderated by offline shopping enjoyment.

Table 8. The moderating effect of offline shopping enjoyment in the indirect effect of offline service quality on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
offline service quality	Online Search	Offline Purchase	Offline shopping enjoyment	-.11	.06	-.18	.01

Research question 5a investigates the indirect effect of online convenience on offline purchase through online search. To test this effect the PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, online convenience was the independent variable, search online was the mediator, and purchase offline was the dependant variable. The results are presented in Table 9. As can be seen, the main effect of online convenience on online search is significant with a regression coefficient of .65 ($p < .01$). The effect of online

search on offline purchase is significant with a regression coefficient of .26 ($p > .01$). The total effect of online convenience on offline purchase is significant with a regression coefficient of .18 ($p > .01$). The direct effect of online convenience on offline purchase is significant with a regression coefficient of .18 ($p > .01$). The indirect effect of online convenience on offline purchase mediated by online search was significant with a regression coefficient of .17 ($p < .01$). This is indicated by the bootstrapping confidence interval for this effect, which include the value of zero (LLCI = .00, ULCI = .40), therefore, online search mediates the relationship between online convenience and offline purchase. Therefore, online search partially mediates the effect of online convenience on offline purchase as the indirect effect of online convenience on offline purchase is still significant. Therefore, in answering RQ5a, online search mediates the relationship between online convenience and offline purchase.

Table 9. The indirect effect of online convenience on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Online convenience	Online search	Offline purchase	.65**	.26	.18	.18	.17	.00	.40

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value < .05

** : p-value < .01

Research question 5b examines the indirect effect of online convenience on offline purchase through online search by offline shopping enjoyment as a moderator. To test RQ5b, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, online convenience was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 10. As can be seen, the interaction effect of online convenience and offline shopping enjoyment on offline purchase was not significant with a regression coefficient of -.11 ($p < .10$).

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between online convenience and offline purchase does not include the value of zero (LLCI = -.23, ULCI = .00). Therefore, offline shopping enjoyment does not moderate the mediating effect of online search in the relationship between online convenience and offline purchase.

Therefore, in answering RQ5b, the mediating effect of online search in the relationship between online convenience and offline purchase is not moderated by offline shopping enjoyment.

Table 10. The moderating effect of offline shopping enjoyment in the indirect effect of online convenience on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
Online convenience	Online Search	Offline Purchase	Offline shopping enjoyment	-.11	.06	-.16	.02

Research question 6a investigates the indirect effect of offline convenience on offline purchase through online search. To test this effect the PROCESS macro (Model 4) developed by Hayes (2013) was used. In the mediation model, offline convenience was the independent variable, search online was the mediator, and purchase offline was the dependant variable. The results are presented in Table 11. As can be seen, the main effect of offline

convenience on online search is significant with a regression coefficient of .48 ($p < .01$). The effect of online search on offline purchase is significant with a regression coefficient of .23 ($p > .01$). The total effect of offline convenience on offline purchase is significant with $b = .32$ ($p < .01$). The direct effect of offline convenience on offline purchase is significant with a regression coefficient of .32 ($p < .01$). The indirect effect of offline convenience on offline purchase mediated by online search was significant with a regression coefficient of .11 ($p < .01$). This is indicated by the bootstrapping confidence interval for this effect, which does not include the value of zero (LLCI = $-.005$, ULCI = $.27$), therefore, online search does not mediate the relationship between offline convenience and offline purchase. Therefore, in answering RQ6a, online search does not mediate the relationship between offline convenience and offline purchase significantly.

Table 11. The indirect effect of offline convenience on offline purchase mediated by online search

IV	Mediator	DV	a path	b path	c path	c' path	a*b path	LLCI	ULCI
Offline convenience	Online search	Offline purchase	.48*	.23	.32**	.32**	.11	-.005	.27

Notes:

a path = the effect of IV (the independent variable) on M (the mediator)

b path = the effect of M on DV (the dependent variable)

c path = the total effect of IV on DV

c' path = the direct effect of IV on DV

a*b path = the indirect effect of IV on DV

LLCI and ULCI = Lower and upper level bootstrap confidence intervals for the indirect effect based on 5000 samples

*: p-value $< .05$

** : p-value $< .01$

Research question 6b examines the indirect effect of offline convenience on offline purchase through online search by offline shopping enjoyment as a moderator. To test RQ6b, PROCESS macro (Model 14) developed by Hayes (2013) was used. In the test, offline convenience was the independent variable, online search was the mediating variable, offline purchase was the dependent variable, and offline shopping enjoyment was the moderator. The results are shown in Table 12. As can be seen, the interaction effect of offline convenience and offline shopping enjoyment on offline purchase was not significant with $b = -.11$ ($p < .10$).

Also, the bootstrapping confidence interval for the moderating effect of offline shopping enjoyment in the mediating effect of online search in the relationship between offline convenience and offline purchase does not include the value of zero (LLCI = $-.23$, ULCI = $.00$). Therefore, offline shopping enjoyment does not moderate the mediating effect of online search in the relationship between offline convenience and offline purchase. Thus, RQ6b addressing the mediating effect of online search in the relationship between offline convenience and offline purchase is not moderated by offline shopping enjoyment.

Table 12. The moderating effect of offline shopping enjoyment in the indirect effect of offline convenience on offline purchase mediated through online search

IV	Mediator	DV	Moderator	Interaction Coefficient	P-value	LLCI	ULCI
Offline convenience	Online Search	Offline Purchase	Offline shopping enjoyment	-.11	.05	-.14	.01

5. Discussion and Conclusion

In this study it was aimed to investigate the factors affecting search online and purchase offline. This research includes 5 constructs of brand image, service quality, convenience, search online and purchase offline. And also, offline shopping enjoyment plays role as a moderator on the relationship between search online and purchase offline.

According to the results, it was determined all research question are not significant and were not effective on search online and purchase offline; however, brand image on online and offline channel have a significant effect on attraction of consumers to search online and purchase offline. This study finds that consumer perception and satisfaction with service, brand image, and convenience have positive and significant effects on future intentions to search online and purchase offline.

Overall, the findings provide significant insights concerning the roles of brand image, service quality, and convenience on consumers' search online search and offline purchase decisions and the interplay of this effect with offline shopping enjoyment. The results of this study show that brand image in offline and online channel influences a consumer's intention to search online which motivates the consumer's offline purchase intention. Based on the empirical evidence, this study finds that brand image has the strongest direct effect on search online compared to service quality and convenience in online and offline channel. A positive image of search online can lead to purchase offline. Results showed that offline shopping enjoyment does not interact with search online to influence consumers to purchase offline and does not moderate the mediating effect of online search in the relationship between offline/online brand image and offline purchase. No relationships found between offline service quality and offline convenience with search online. Moreover, there is a significant positive relationship among search online and purchase offline which supported in the proposed research model. Offline shopping enjoyment does not affect in the relationship between online and offline service quality, online and offline brand image with search online and purchase offline.

6. Implications

6.1 Theoretical Contributions

This paper extends previous research in the following ways. First, this study is the first to investigate the effect of brand image, service quality, and convenience on search online and purchase offline. Second, this paper demonstrated that how search online can effect on the relationship of brand image, service quality, and convenience with offline purchase. Third, unlike previous studies that regard enjoyment as a consistent and strong predictor of attitude toward online and offline shopping (Childers et al., 2001), this study showed offline shopping enjoyment does not play a key role for the effect of service quality and convenience on attracting consumers to physical stores except in offline service quality.

6.2 Managerial Implication

Marketing practitioners require frameworks and models that enable them to better understand online and offline consumer shopping behavior (Carlson & O'Cass, 2010). Thus, the model in this study offers practitioners a clear picture and a useful tool to better understand the relationship between brand image, service quality, and convenience with search online and purchase offline, and how these relationships may be influenced by shopping enjoyment as a personality characteristic.

The findings of this study show that online and offline brand image not only lead to more search online, but also increase offline purchase. Consequently, managers increasingly face the need to understand the ways their brands are perceived by their consumers so that marketing activities can be focused on brand and creating a specific name and personality dimension, to be attached to a strong brand. Also, retailers could better invest in communications across various channels aiming to bring more consumers to the physical store.

7. Limitations and Future Research Directions

This study is not without limitation. First, the sample of our study is restricted to consumer evaluations from a specific website through online survey. As such, caution is warranted in attempting to generalize these findings via online and offline surveys. Additional research could explore and compare the key constructs found in the framework with consumer evaluations across a variety of channels.

Second, investigating on a scaled geographical distribution through online survey, the researchers could not have full control of informants' biases while they were answering the questionnaire. Therefore, the results found in this study cannot fully reflect consumers' opinions on online and offline shopping.

Finally, the empirical relationships between online and offline brand image, online and offline service quality, offline and online convenience, with search online and purchase offline reported in this study are tentative in the sense that they are based on cross-sectional data. This is an important consideration given the dynamic nature of Internet technology and its continued development (O'Cass & Carlson, 2010). Thus, longitudinal research should be considered to further understand changes during an extended period of consumption episodes by consumers.

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The Effect of Human Resource Management (HRM) Practices in Service-Oriented Organizational Citizenship Behaviour (OCB): *Case of Telecommunications and Internet Service Providers in Malaysia*

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Abstract

In the human resource management-organizational performance research context, this paper is focusing on the effect of Human Resource Management (HRM) practices (pay practice, job security, training and development, supervisor support) on service-oriented Organizational Citizenship Behaviour (OCB) in Malaysian telecommunication and internet service providers. A quantitative study was conducted on 204 customer-contact employees who working in telecommunications and internet service providers in Malaysia. Correlation analysis and multiple regression analysis were applied to analyse the relationships between HRM practices and service-oriented OCB. The results indicate that, job security, training and development, supervisor support and overall perceptions of HRM practices have positive and significant effect on service-oriented OCB with the exception for pay practice.

Keywords: HRM Practices, Service-Oriented OCB, Customer-Contact Employees, Malaysia

1. Introduction

Service sector is one of the most important element in Malaysia economy growth and development (Central Bank of Malaysia, 2007; Department of Statistics Malaysia, 2013; Malaysian Industrial Development Authority, 2013; New Straits Times, 2015; The Star, 2014). Telecommunications and internet service providers in Malaysia are trying hard to offer better user experience but poor customer service from service providers are still remains a big problem for consumers.

Azzat, Hazlina and Tan (2012) argued that scorecard evaluation by telecommunication and internet service providers to their customers are not helpful to improve the service quality. A report from Malaysian Communications and Multimedia Commission (MCMC) shows that majority of customer's complaints based on poor service from customer-contact employees (35%), followed by service or product content (16.7%), monthly bill and charging (13.9%), SMS (10.1%), no network coverage (4.3%) and poor service coverage (3.5%) (MCMC, 2013). The highest percentage of customer complaints due to poor service reflect the real situation of telecommunications and internet service provider's services in Malaysia. There is a significant gap between consumers expected and perceived service quality from Malaysian telecommunication and internet service providers.

To address this issue, service-oriented organizations have to analyse and develop their employee's service-oriented Organizational Citizenship Behaviours (OCB). According to Organ (1998), the employees who have the extra role behaviour could help to increase their organizational effectiveness and productivity. Generally, Organ, Podsakoff and Mackenzie (2006) defined OCB as employee's discretionary behaviour that go beyond their formal job requirements and descriptions which is not reimbursed by the reward system. Moreover, OCB is usually support to organizational performance and competitive advantage (Nemeth & Staw, 1989). Besides that, Bateman and Organ (1983) stated that numerous studies were conducted widely to analyse OCB since it was introduced about twenty years ago.

Many previous empirical studies of OCB have focused on organizational performance and human resource strategies (Arthur, 1994; Snape & Redman, 2010; Tsui, Pearce, Porter & Tripoli, 1997). Besides that, several research studies also had conducted on organizational effectiveness and OCB (Bateman & Organ, 1983; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Walz & Niehoff, 2000; Yen & Niehoff, 2004).

Besides that, past researches on OCB had focused only on the general form of organizational citizenship behaviour. In addition, only few studies had focused on specific forms of OCB personalised to a particular sector such as in a service sector. For instance, Bettencourt and Brown (1997) were conducted few studies on particular forms of OCB such as service-oriented organizational citizenship behaviours (service-oriented OCB) and studies show that limited guidance and attention have been given to specify organizational practices that elicit service-oriented OCB. The definition of Bettencourt and Brown (1997) on service-oriented OCB is discretionary behaviours of customer-contact employees in a service provider organization that go beyond formal job requirements.

In the case of Malaysia, past studies had conducted only on service-oriented OCB relate to the agricultural business, logistics industry, hospitality industries and public sector (Chaudhry & Usman, 2011; Ladebo, 2004; Nasurudin, Ling, & Fun, 2011; Sun, Aryee, & Law, 2007). Thus, lack of study has been focused on developing customer-contact employee's service-oriented OCB in Malaysian telecommunications and internet service provider.

Besides that, there is limited studies on specific organizational practices that may influence OCB. This observation was made based on the way of an organization approach to Human Resource Management (HRM) practices that can lead to high levels of OCB (Morrison, 1996) and also the way of an organization manages its human resources to set the good conditions and high quality for the relationship between organization and employee (MacDuffie, 1995; Rousseau & Greller, 1994).

Thus, HRM practices play an important role in the organizational success and operation. Moreover, HRM practices are one part of organizational-based resource that can support employees in reducing their job demands and the associated psychological and physiological costs, motivating their personal learning, growth and development achieving their job goals (Salanova, Agut, & Peiro, 2005). Hence, there is a reason to conduct study on how the HRM practices help the organization manage their employees in achieving higher success and performance (Abdullah, Ahsan, & Alam, 2009). Besides that, most of the past empirical studies found that HRM practices have positive significant effect on organizational performance and there is extensive evidence that systems of HRM practices are associated with different measures of organizational performance (Arthur, 1994; Appelbaum, Bailey, Berg, & Kalleberg, 2000; Guthrie, 2001; MacDuffie, 1995; Wright, Gardner, Moynihan, & Allen, 2003). However, there is only few studies described the processes through which HRM practices effect the primary intermediate variables that ultimately influence the performance of an organization (Becker, Huselid, Pickus, & Spratt, 1997).

A review of past studies shows that HRM practices are major element in influencing positive OCB within the services sector (Liao et al., 2009; Tsaor & Lin, 2004; Tang & Tang, 2012). However, these studies have been only conducted in Japan, United States of America and Taiwan respectively. According to Paine and Organ (2000), and Turnipseed and Murkison (1993), national cultures have significant effects on the performance of OCB. Thus, given the differences in culture between Malaysia and other countries, findings by Sun et al. (2007) in other countries may not be generalizable to Malaysia. In the Malaysian context, majority of studies on HRM practices were focused on organizational-level outcomes (i.e. organizational performance) with less interested were given to individual-level outcomes (Daud & Ahmad, 2003; Rose & Kumar, 2006). Moreover, Wright et al. (2003) had investigated the relationship between HRM practices and organizational performance. The result of study shows that HRM practices affect the organizational performance through its influences of individual employee attitudes and behaviours (Wright et al., 2003).

Thus, there is still a great interest in finding further evidence about the linkages between HRM practices and service-oriented OCB. Based on the above discussion, the main objective of this research is to bridge the gaps by analysing the relationship between HRM practices and service-oriented OCB in the context of telecommunications and internet service providers in Malaysia.

2. Literature Review

Zerbe, Dobni and Harel (1998) is mentioned that the relationship between HRM practices and strategic outcomes is solidest in service organizations as opposed to manufacturing organizations. When employees get satisfied with their organization's HRM practices, employees are more likely to contribute their resources and energies for providing a good service to their customers (Schneider & Bowen, 1985). This statement is consistent with Ogilvie (1986)'s perception of HRM practices which shows the level of concern that organization appears to have their employees. Employees are more willing to perform OCB's when organization's increased social exchange relationships with employees (Morrison, 1996).

HRM practices highly contribute on long-term relationships with employees through the delivery of continuous

education and development programs, individualized orientation activities, promotion opportunities, supportive benefits and assurances of job security which more likely to lead to greater OCB's (Morrison, 1996). Besides that, Sun et al. (2007) argued that high performance HRM practices which include the delivery of extensive skills training, promotion and job security from within can collectively affect organizational level performance in terms of grouped service-oriented OCB over two means: (1) These practices indicate organization's target to create a long-term relationships with their employees; and (2) Represents the organization's encouragements that by creating employees' perception of a supportive work environment and satisfying employee goals. From a social exchange perspective (Blau, 1964), employees are mostly become grateful and motivated to respond with service-oriented OCB under these circumstances (Sun et al., 2007).

Based on previous studies arguments (Fiorito et al., 2007; Harel & Tzafrir, 1999; Sun et al., 2007; Whitener, 2001; Zerbe et al., 1998), it is predicted that what constitutes greatest HRM practices will be significantly related to employees' service-oriented OCB. Thus, the selection of HRM practices in this research are mainly based on ERG's theory of motivation. According to Alderfer (1972), ERG theory is conceptualized three elements of human needs (existence, relatedness, growth) that employees attempt to satisfy in their organizations. Thus, salary or monetary rewards are categorised as employee's physiological needs for existence; job security is categorised as employee's safety needs for existence; training and development is categorised as employee's needs for growth and supervisor support is categorised as employee's need for relatedness in the organization. Therefore, in this research proposed four HRM practices (training and development; pay practice; job security and supervisor support) based on ERG's theory of motivation that may foster greater levels of service-oriented OCB.

2.1 Pay Practice

According to Parker and Wright (2001), money has the potential to influence employee's attitude and behaviour. Pay practice generally refers to a reward system including basic salary, performance pay and allowances that organization paid for their employees (Byars & Rue, 2004). The HRM of organizations were paid differently for the same job to certain employees based on employee's individual differences in responsibility, working experience, job performance, education qualification and as well as seniority of employee (Bateman & Snell, 2007; Cherrington, 1995).

Appropriate pay practice in the organization may develop employees to increase their performance, motivation and productivity (Milgrom & Roberts, 1992). The use of an appropriate pay practice in organization suggest that employee's capabilities, performance and effort contributions are appreciated and recognized (Chew & Chan 2008; Davies, 2001). Hence, this could lead to higher commitment and satisfaction amongst employees. According to expectancy theory (Vroom, 1964), when employees received a satisfied pay, they more likely to increase their contribution in working hard to increase the OCB of individual which will lead to improve the service quality of the organization. Past study based on expectancy theory shows that pay practice positively influences employee's OCB (Van Scotter, 2000). According to Konovsky and Pugh (1994), OCB is a positive behaviour of an employee to the organization and pay practice will have positive influence on OCB as well as job involvement in an organization. Besides that, other past studies on OCB found that pay practice is significantly affect employee's OCB in organization (Frye, 2004; Huselid, 1995; Teseema & Soeters, 2006).

In addition, pay practice based on performance and allowances will further increase employee performance (Brown, Sturman & Simmering, 2003; Delaney & Huselid, 1996). Collins and Clark (2003) stated that most of the organizations used performance and allowance based pay practice to reward employees and it's positively effects employee's OCB. Thus, pay practice makes employees well motivated to go further their call of job responsibilities in the form of higher service-oriented OCB. Hence, the following hypothesis is proposed:

Hypothesis 1: Employees' pay practice will be significantly effect on service-oriented OCB.

2.2 Job Security

Job security is the degree of an employee expects to stay or work in the organization for a longer period of time (Delery & Doty, 1996). Besides that, Simon (2011) stated that job security influences the probability of employee keeping his or her job without the risk of becoming unemployed. Furthermore, necessary or essential skills, job knowledge, and past working experience needed by the organizations; and subject to the current business environment and current economic condition also secure employee's job security (Pfeffer, 1998).

Employees have time to focus on the tasks at hand and getting their job done perfectly when employees feel their jobs are secure. Job security has a positive influence with employee performance in an organization (James, 2012). According to James (2012), employees with low job security are losing faith with their organization

which consequently affects their performance in an organization. Thus, employees with high job security are highly contribute themselves in the job to perform their task effectively. Job security reduces employees' risk of job sacking during an economic crisis and creates a good relationship of trust between employees and the organization.

Several past studies have been conducted on determining the relationship between job security and OCB (Eatough, Chang, Miloslavic & Johnson, 2010; Feather & Rauter, 2004; Gong & Chang, 2008; König, Debus, Häusler, Lendenmann & Kleinmannet, 2010; Reisel, Probst, Chia, Maloles, & König, 2010; Staufenbiel & König 2010; Wong, Wong, Ngo & Lui, 2005). The previous studies show that low job security was impact employee's mental and physical health and employee's attitude and behaviour negatively such as lowered OCB (Ashford, Lee & Bobko, 1989; Kopp, Stauder, Purebl, Janszky, & Skrabski, 2007; Laszlo et al., 2010). Besides that, a past study results shows that high job security significantly affects employee's performance of OCB (De Witte, 1999). Furthermore, Reisel et al. (2010) showed job security build a positive relationship between employee and employer. Thus, job stability ensures employees' sense of responsibility and attachment to the employer which is critical for the showing of Service-Oriented OCB (Sun & Pan, 2008). Hence, the following hypothesis is proposed:

Hypothesis 2: Employees' job security will be significantly effect on service-oriented OCB

2.3 Training and Development

Training and development practices of an organization indicates forms of human capital investment for organizational and employees improvements (Wentland, 2003). The study from U.S. Department of Labor (1993) shows that training and development practices have been shown to be significant elements of efficient performance in the organization (Terpstra & Rozell, 1993). The previous study from Russia proved that training and development opportunities gives an organization the competitive advantage (Jukov & Korotov, 1998; Shekshnia, 1998). According to Dessler (2008), training and development practices are developing employee's skills and abilities to perform well on their job in organization. Hence, the results from previous researches shows that training and development programs positively influence employee's performance in organization (Delaney & Huselid, 1996; Koch & McGrath, 1996). Besides that, providing training and development programs are influence employees to receive necessary skills, knowledge and attitudes to function responsibly (Guest, 2000). Thus, employees who have attend more training and development programs are likely to perform better.

Several past studies have been conducted on the influences of training and development on employee's attitude and behaviour and the results indicate that training and development positively influence the employee's OCB in an organization (Ashill, Carruthers & Krisjanous, 2006; Tsaun & Lin, 2004; Tang & Tang, 2012). Besides that, a study from Aizzat et al. (2012) explained that customer-contact employees are expected to become highly motivate and willing to involve themselves in service-oriented behaviours that exceed their formal job through training and development. Thus, training and development would develop greater service-oriented OCB amongst employees. Another past studies show that, training and development program help new employees adapt themselves to early entry experiences resulting in lower feeling of uncertainty (Autry & Wheeler, 2005; Simosi, 2010; Van Maanen & Schein, 1979). In such situation, new employees are more interested to become committed to the work which makes them to engage in behaviour such as service-oriented OCB. Hence, the following hypothesis is proposed:

Hypothesis 3: Employees' training and development will be significantly effect on service-oriented OCB.

2.4 Supervisor Support

According to Griffin, Patterson & West (2001), supervisor support is defined as the extent of supervisors care about their employee's well-being and values their employee's contribution in the organization. Supervisor is a representative of the organization that have responsibility to guide and evaluate performance of the employees (Eisenberger, Stinglehaumber, Vandenberghe, Sucharski & Rhoades, 2002). Moreover, employees perceived the care that received from supervisors and they make common perceptions on the amount of their organizations gives value to their contributions and also take care of their benefits and well-being (Eisenberger, Huntington & Huchison, 1986). The strength of the relationship is also dependent on which level employees perceived the relation with their supervisor (Eisenberger et al., 2002).

Past studies found that supervisor support from the supervisor can develop employee's good perception of the organization and acceptance of the organization's values and goals among employees (Rhoades, Eisenberger, & Armeli, 2001). Besides that, a past study results shows that higher supervisor support can improve employee's performance of OCB in the organization (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). The results were

explained that leader member exchange influenced trust of employees significantly and improved perceived supervisor support within employees. This makes employees to perform greater OCB in their organization. Furthermore, Mayer and Gavin (2005) showed that employee's trust with supervisor build a positive relationship amongst employees. Thus, these lead employees commit more to their organizations and more likely to feel satisfied which in turn lead to greater service-oriented OCB. Hence, the following hypothesis is proposed:

Hypothesis 4: Employees' supervisor support will be significantly effect on service-oriented OCB.

2.5 Overall HRM Practices

Previous literatures linking HRM practices to employee's attitude and behaviour suggested that an integrated set or overall perception of HRM practices has a greater effect on performance rather than HRM practices taken individually (Dyer & Reeves, 1995; Koon, 2014; Ramsay, Scholarios, & Harley, 2000). On the basis of the preceding discussion and from the perspective of social exchange (Blau, 1964), it can be expected that customer-contact employees' overall perceptions of their telecommunications and internet service provider's HRM practices (training and development, pay practice, job security, supervisor support) will significantly and positively affect their service-oriented OCB. Hence, the following hypothesis is proposed:

Hypothesis 5: Employees' overall perception of HRM practices will be significantly effect on service-oriented OCB.

3. Methodology

The main objective of this research is to determine the relationship between HRM practices and service-oriented OCB. The unit of analysis for this study is at the individual level, which is the customer-contact employee that working in telecommunication and internet service providers in Malaysia. Simple random sampling method was used to select respondents for this study. Simple random sampling was used in this research in order to avoid bias and to ensure that each customer-contact employee working in telecommunications and internet service providers had an equal chance of being selected. In total 204 completed questionnaires were collected from target respondents and a response rate is 81.60%. Self-administered questionnaire was used as an instrument for data collection in this study. Werner and Eleanor (1993) suggested that self-administered questionnaire that distributed by hand is most suitable method of data collection in a research.

A quantitative descriptive survey method was used in this research. The questionnaire was categorised into Section A and Section B. Thus, Section A consists of target questions and Section B consists of age, gender, marital status, nationality, race, religion, education level, monthly income and working experience. All items used in the questionnaire were based on a five-point Likert scale ranged from "Strongly Disagree" with the value of one to "Strongly Agree" with the value of five in this study.

In this research, the questionnaires for HRM practices and service-oriented OCB were adapted from past studies and the questionnaires used in the previous literatures have been found to be reliable and valid (Bettencourt, Meuter, & Gwinner, 2001; Chen & Huang, 2009; Cummings & Oldham, 1997; Zeytinoglu, Denton, Davies, & Plenderleith Millen, 2009; Hammer, Kossek, Yragui, & Bodneret, 2009; Manafi, Hojabri, & Aghapour, 2012; Mikander, 2010; Shahzad, Bashir, & Ramay, 2008; Wick & Leon, 1993; Yeh, 2013).

The collected data were analysed using the computerized Statistical Package for Social Sciences (SPSS) software (Buglear, 2005). Preliminary analyses were conducted to test the goodness of data and regression statistical analysis was conducted to test the hypotheses for this research (Sekaran, 2011). The factor analysis was conducted to address the problem of analysing the structure of the interrelationship among a large number of variables. Besides that, Cronbach's alpha was calculated to measure reliability scale for each variable which indicate how consistent the responses were across items within the scale. Correlation analysis was conducted to examine the relationship between HRM Practices and service-oriented OCB. Furthermore, regression analysis was applied to analyse the effect of HRM practices on service-oriented OCB.

4. Findings and Discussion

4.1 Demographic Characteristics

Total 204 Malaysian respondents were included in this study. Table 1 shows the frequency and percentage of each group related to demographic factors.

Table 1. Profile of Respondents

Demographic	Categories	Frequency	Percentage (%)
Age	Under 21	66	32.4
	21 to 34	101	49.5
	35 to 44	37	18.1
	45 to 54	0	0.0
	55 or Older	0	0.0
Gender	Male	129	63.2
	Female	75	36.8
Marital Status	Single	125	61.3
	Married	78	38.2
	Divorced	1	0.5
	Widowed	0	0.0
Nationality	Malaysian	204	100.0
	International	0	0.0
Race	Malay	70	34.3
	Chinese	86	42.2
	Indian	47	23.0
	Others	1	0.5
Religion	Muslim	70	34.3
	Buddhist	38	18.6
	Hindu	42	20.6
	Christian	53	26.0
	Others	1	0.5
Education Level	SPM/STPM	59	28.9
	Diploma	66	32.4
	Undergraduate Degree	79	38.7
	Postgraduate Degree	0	0.0
	Others	0	0.0
Monthly Income	RM1999 and Below	69	33.8
	RM2000 to RM2999	99	48.5
	RM3000 to RM4999	36	17.6
	RM5000 and Above	0	0.0
Working Experience	One year to less than two years	70	34.3
	Two years to less than three years	93	45.6
	Three years to less than five years	40	19.6
	Five years to less than ten years	1	0.5
	Ten years or more	0	0.0

4.2 Preliminary Analysis

4.2.1 Factor Analysis

Factor analysis is used to organise the concealed structure within the collected respondents and to arrange the number of indicators into a more well-organised and manageable set of data (Harman, 1976). In this study, two factor analyses as shown in Table 2 were conducted to verify the hypothesized dimensionality of the independent and dependent variables respectively. In factor analysis, a forced choice procedure was chosen for the number of extracted factors with VARIMAX rotation. The results of this research show that the KMO (Kaiser-Meyer-Olkin) value for all variable are above 0.5. Furthermore, Bartlett's test of sphericity was significant for all variables of this study. Besides that, all variables of this this study had Eigenvalues more than 1. Primary factor loading for each item in a variable is required to have minimum 0.4 and above (Coakes and Steed, 2003). In this study, the items for each variable had primary factor loadings of 0.4 and above, and proved that it met the acceptable standard of factor analysis. The minimum acceptance criteria of reliability are the Cronbach's alpha value must

be more than 0.6 (Sekaran, 2011). In this study, the result of reliability analysis indicated that the value of Cronbach alpha of each variable met the acceptable standard of reliability analysis. All the variable's Cronbach alpha of this study fall between 0.93 and 0.97.

Table 2. Factor Analysis

Measure	Items	Factor Loading	KMO	Bartlett's Test of Sphericity	Eigenvalue	Variance Explained	Cronbach Alpha
Independent Variable							
Pay Practice	14	0.58 to 0.75	0.946	8495.65*	7.70	18.32	0.95
Job Security	8	0.66 to 0.76	0.946	8495.65*	5.53	13.17	0.93
Training and Development	11	0.78 to 0.83	0.946	8495.65*	8.71	20.73	0.97
Supervisor Support	9	0.67 to 0.77	0.946	8495.65*	6.44	15.33	0.94
Dependent Variable							
Service-Oriented OCB	16	0.76 to 0.86	0.941	3105.56*	10.30	64.39	0.96

Note. * Significant at the 0.0001 level

4.2.2 Correlation Analysis

Table 3 is shows that Means, Standard Deviation (SD) and Bivariate Correlations of the variables. According to Sekaran (2011), the bivariate correlations is a statistical method that used to determine the relationship between independent variables and dependent variable. Correlation analysis used in this study to determine relationship between HRM practices (pay practice, job security, training and development, supervisor support) and service-oriented OCB. The results in Table 3 show that correlation between pay practice ($r_1= 0.61$), job security ($r_2= 0.64$), training and development ($r_3= 0.65$) and supervisor support ($r_4= 0.60$) are significant for the service-oriented OCB.

Table 3. Means, Standard Deviations (SD) and Bivariate Correlations

Variables	Mean	SD	1	2	3	4	5
Pay Practice (1)	3.34	0.90	1				
Job Security (2)	3.49	0.87	0.69**	1			
Training and Development (3)	3.00	1.06	0.62**	0.49**	1		
Supervisor Support (4)	3.69	0.87	0.63**	0.57**	0.54**	1	
Service-Oriented OCB (5)	3.58	0.86	0.61**	0.64**	0.65**	0.60**	1

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

4.3 Hypotheses Testing

The regression analysis was used to determine the effect of HRM practices (pay practice, job security, training and development, supervisor support) and perception of overall HRM practices on service-oriented OCB. Table 4 shows that the HRM practices statistically predict the service-oriented OCB, $F(4,199) = 69.67, p < 0.01$ and perception of overall HRM practices also statistically predict the service-oriented OCB, $F(1,202) = 251.55, p < 0.01$. Coefficient correlation (R value) for this models are 0.76 and 0.75. These values show that HRM practices and overall HRM practices has positive relationship with service-oriented OCB. The R^2 values indicate HRM practices can explain 58% (0.58) and overall HRM practices can explain 56% (0.56) of variations in the service-oriented OCB. This shows that both of these regression models are good fit for the data. The regression results in Table 4 show that of the five hypothesized relationships, four (job security, training and development, supervisor support) are significant ($p < 0.05$) and one (pay practice) is non-significant ($p > 0.05$).

Firstly, Hypothesis 1 suggests that employees' pay practice will be significantly effect on service-oriented OCB.

However, the regression results show that non-significant effect with service-oriented OCB ($t= 0.54, p=0.59$). This study is counter to early study by Chew and Chan (2008); Davies (2001); and Parker and Wright (2000). Thus, this result shows that further analysis is needed to determine the potential moderating and mediating factors that effects the direct relationship between pay practice and service-oriented OCB.

Secondly, Hypothesis 2 suggests that employees’ job security will be significantly effect on service-oriented OCB. The regression results for job security are significantly support the relationship with service-oriented OCB ($t= 5.09, p<0.01$). This finding is consistent with the previous studies by (Pfeffer, 1998; Sun & Pan, 2008) that found job security has a positive significant effect with service-oriented OCB.

Next, Hypothesis 3 suggests that employees’ training and development will be significantly effect on service-oriented OCB. The regression results for training and development have support this hypothesis ($t= 6.09, p<0.01$). This finding is consistent with past studies indicating that training and development programs provided by the organization were increased the employee’s performance. In other word, training and development program is important for service-oriented OCB (Ashill et al., 2006; Tang & Tang, 2012).

Fourth, Hypothesis 4 suggests that employees’ supervisor support will be significantly effect on service-oriented OCB. The regression results indicate a positive significant relationship between supervisor support and service-oriented OCB in this study ($t= 2.88, p<0.01$). Based on this finding, previous literature also has consistently shown that supervisor support has a positive and significant effects on service-oriented OCB (Griffin et al., 2001; Rhoades et al., 2001).

Lastly, Hypothesis 5 suggests that employees’ overall perception of HRM practices will be significantly effect on service-oriented OCB. In line with the results of past studies, the results of this study show that overall perception of HRM practices has a positive and significant effects on service-oriented OCB (Dyer & Reeves, 1995; Ramsay et al., 2000). The regression results for overall perception of HRM practices have supported in this study ($t= 15.86, p<0.01$).

Table 4. Multiple Regression Analysis

Model	Unstandardized Coefficients		<i>t</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
	B	s.e.				
Constant	0.73	0.19	3.86*			
Pay Practice	0.04	0.07	0.54			
Job Security	0.33	0.07	5.09*	69.67 (4,199)	0.76	0.58
Training and Development	0.30	0.05	6.09*			
Supervisor Support	0.18	0.06	2.88*			
Constant	0.79	0.18	4.40*	251.55 (1,202)	0.75	0.56
Overall HRM Practices	0.83	0.05	15.86*			

Note. * $p<0.01$; s.e. = standard error

Based on the statistical analysis above, the supported and not supported proposed hypotheses of this study are shown in Table 5.

Table 5. Results of the Analyses

Hypothesis	Statement of Hypothesis	Results
H1	Employees’ pay practice will be significantly effect on service-oriented OCB.	Not Supported
H2	Employees’ job security will be significantly effect on service-oriented OCB.	Supported
H3	Employees’ training and development will be significantly effect on service-oriented OCB.	Supported
H4	Employees’ supervisor support will be significantly effect on service-oriented OCB.	Supported
H5	Employees’ overall perception of HRM practices will be significantly effect on service-oriented OCB.	Supported

5. Implications

This research can help the service-oriented management by providing additional information about the influences of HRM practices toward service-oriented OCB. Thus, the results of this study could be a determinant to service-oriented organizations making more reliable decisions on the planning process in HRM matters in their organizations.

First, this study shows that pay practice has non-significant effect on employee's service-oriented OCB. However, the previous findings indicate that pay practice has a positive significant impact on the employee's performance (Chew & Chan, 2008; Davies, 2001; Parker & Wright, 2000). The finding of this study for pay practice indicates that non-consistent results with previous studies. Thus, further investigation is needed to determine the potential moderating and mediating factors that effects the direct relationship between pay practice and service-oriented OCB.

Second, this study shows that employee's job security has a positive significant effect on employee's service-oriented OCB. The managements of telecommunication and internet service provider should have agreement with customer-contact employees regarding employment contract. An employment contract is defined as written legal document that described about terms and conditions of an employment relationship between organization and employee (Susan, 2016). The organization should clearly have described about employee's job protection in employment contract. Thus, this could help customer-contact employees to stay longer period and perform well on their service-oriented OCB in organization.

Third, this study also shows that training and development has a positive significant effect on employee's service-oriented OCB. The management should conduct adequate pre-training to their new customer-contact employees on how to perform well good service to their customers in order to increase employee's service-oriented OCB.

Fourth, supervisor support in this study also shows positive effect on employee's service-oriented OCB. Thus, the management should implement awareness program to supervisors regarding employee's cares. This could help supervisors to improve themselves to care and value their customer-contact employee's contributions. Hence, supervisor support from the supervisor can develop employee's good perception of the organization and enhance employee's performance of service-oriented OCB.

Lastly, one of the major implication in this study is overall perception of HRM practices on employee's service-oriented OCB. The overall HRM practices positively influence employee's service-oriented OCB in this study. Thus, Ministry of Human Resources (MOHR) and other Malaysian government agencies should build better awareness of the benefits of HRM practices to motivate higher rate of retention of the customer-contact employees in the telecommunication and internet's service organizations. The awareness can be done by having induction and seminar sessions on benefit of HRM practices to allow telecommunications and internet service providers to evaluate their customer-contact employee's service-oriented OCB.

6. Conclusion

Based on the results of this research, three HRM practices (training and development, job security, supervisor support) did have positive effect towards employee's service-oriented OCB with the exception for pay practice variable. The pay practice on this study will not likely to influence the employee's service-oriented OCB in Malaysian telecommunications and internet service providers. The results for pay practice suggest to conduct further analysis to determine the potential moderating and mediating factors that effects the direct relationship between pay practice and service-oriented OCB. Finally, the overall perception of HRM practices in this study shows that HRM practices positively influence customer-contact employee's service-oriented OCB. From the results of this study, it can be concluded that objective of this study was achieved, which is to study about the influence of HRM practices on service-oriented OCB in the context of telecommunication and internet service providers in Malaysia.

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Underlying Gaps between Environmental Knowledge and Behavior in the City of Toyota

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Abstract

This study analyzes underlying gaps between environmental knowledge and behavior in the city of Toyota. Previous studies suggest that citizens' environmental knowledge of the eco-items comprising the city's eco-policy significantly improved since it was designated as an environmental model city by the Japanese government in 2009. However, citizens do not seem to act on these eco-items. By conducting a focus group interview with personnel from the largest environmental NPO working in Toyota, this study examines possible reasons why citizens do not take actions. The findings suggest that citizens may not act on the eco-items for both economic and ecological reasons as well as others. That is, citizens may not be convinced that the eco-items create enough ecological as well as economic benefits for practical application.

Keywords: Toyota City, eco-policy, environmental knowledge, environmental behavior

1. Introduction

The city of Toyota has been making considerable efforts to promote its eco-policy. The city has long been facing and addressing environmental issues in large part because of industrial activities by the Toyota Motor Corporation (TMC) and its affiliated companies. The city government elaborated on and implemented action plans to improve the environment in the 1990s and 2000s. Toyota was then designated by the Japanese government in 2009 as one of the environmental model cities (EMCs) (Toyota City, 2009).

Previous studies suggest that citizens' environmental knowledge of the eco-items comprising the city's eco-policy significantly improved since the EMC designation, but few citizens seem to actually act on these eco-items. For instance, a study on Toyota's eco-policy conducted by Ito and Kawazoe (forthcoming) showed that although some respondents recognized eco-items such as Ha:mo and the smart house, which will be described later, they do not use Ha:mo or live in the smart house. While their study identified gaps between environmental knowledge and behavior, it did not examine why citizens do not act on, even though they recognize the eco-policy items. The current research explores possible reasons for this lack of action through a focus group interview with members of an environmental NGO based in Toyota. They were selected as participants for this study because this is the largest environmental organization in Toyota and they have been working on environmental issues closely with the city government in Toyota. They are thus familiar with the city's eco-policy and are likely able to provide us with feasible explanations about the underlying knowledge-behavior gap.

This paper is organized as follows. I first explain the definitions of environmental knowledge, attitudes, and behaviors respectively, examining how they are possibly interrelated to each other. I then review the eco-items comprising the eco-policy of Toyota. I next describe the research methodology followed by the results. I end this paper with a discussion and conclusion drawn from the results.

2. Literature Review

2.1 Environmental Knowledge

Cheung et al. (2015) define environmental knowledge as the recognition of issues related to the environment and note that it is the source from which environmental attitudes are cultivated. They continue that "Individuals with a high level of EK would be expected to know what should be done to resolve environmental problems and understand the benefits of responsible behavior as it relates to the environment" (Cheung et al., 2015, p. 508).

The attitude-behavior approach assumes that behavioral changes are brought about by increasing public knowledge about an issue (McKenzie-Mohr, 2012). The linear model that environmental knowledge leads to pro-environmental behaviors has been criticized because the reality is not likely to be that simple. Nonetheless, according to Kollmuss and Agyeman (2002), most environmental actors such as governments and NGOs “still base their communication campaigns and strategies on this assumption” (p. 246).

Robelia and Murphy (2012) argue that discussing how to mitigate the greenhouse effect, for example, “may not be meaningful if one has not encountered the term” (p. 301). Gifford and Nilsson (2014) also state that “making informed pro-environmental choices is difficult if one has incorrect or no knowledge” (p. 142). Therefore, knowledge should be one of the preconditions toward pro-environmental behavior (Jensen, 2002).

2.2 Environmental Attitudes

Environmental attitudes involve the psychological tendency of consumers to favor or disfavor some behaviors that are considered ecologically sustainable (Martinez et al., 2015). Environmental attitudes consist of environmental awareness and concern (Kollmuss & Agyeman, 2002).

Environmental awareness is defined as a measure of one’s ability to understand the nature of environmental processes and problems, his or her degree of concern for environmental quality, and the extent to which one is committed to environmental behavior in daily life (Yeung, 1998). Environmental concern refers to “the degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate a willingness to contribute personally to their solution” (Dunlap & Jones, 2002, p. 485).

Individuals with strong pro-environmental attitudes are more likely to engage in pro-environmental behavior (Kollmuss & Agyeman, 2002) because as Olsson, Gericke, and Rundgren (2016) note, attitudes include behavioral as well as affective aspects.

2.3 Environmental Behaviors

Pro-environmental behaviors are environmentally friendly “behaviors that can contribute to reduction of current environmental burdens” (Kurusu, 2015, p. 1). In addition to reducing negative impacts on environment, some argue that pro-environmental behaviors imply behaviors or actions that intend to improve the environment. Steg and Vlek (2009) define pro-environmental behavior as “behavior that harms the environment as little as possible, or even benefits the environment” (p. 309). Sawitri et al. (2015) also note that pro-environmental behavior is “conscious actions performed by an individual so as to lessen the negative impact of human activities on the environment and to enhance the quality of the environment” (p. 28).

As seen above, environmental knowledge, attitudes, and behaviors are closely interconnected. The ultimate purpose of eco-policies is to enable citizens to acquire pro-environmental behavior, starting from gaining environmental knowledge and transforming it to behaviors through attitudes.

2.4 Eco-policies in the City of Toyota

This study focuses on three eco-themes that Toyota supports to promote its eco-policy: transportation, the urban center, and public welfare and livelihood because these three are the most familiar eco-themes to citizens (Ito and Kawazoe, forthcoming). Transportation variables consist of knowledge of next generation cars (NGCs) and Ha:mo. NGCs include electric vehicles (EVs), hybrid electric vehicles (HEVs), and plug-in hybrid vehicles (PHVs). EVs are cost-efficient because the electricity costs less than oil fuel. PHVs have rechargeable batteries and standard combustion engines, which allows cars to drive two to four times more with the same amount of gasoline (Woo et al., 2012). Ha:mo consists of NAVI, an information system that supports low-carbon, seamless mobility and RIDE, a car sharing system that uses compact electric vehicles for urban short-distance transportation.

The urban center variables consist of knowledge of Ecoful Town and the heat island effect. Ecoful Town, established in 2012, is a pavilion showcasing eco-living that demonstrates how Toyota tackles challenges and elaborates on eco-strategies including transportation, the urban center, and public welfare and livelihoods toward a low-carbon society. Visitors to Ecoful Town can have hands-on experiences such as riding an EV and visiting a smart house. Heat island effect is the phenomena of temperature in the urban areas being higher than that of temperatures in sub-urban areas. This is caused by excess population, developed industries, use of cars, congested and tall buildings, asphalt roads, and cement squares (Gao et al., 2015).

Public welfare and livelihood variables consist of the smart house and eco-points. The smart house is a residential building that pursues reducing CO₂ gas emission and saving energy through the use of renewable energy sources and monitoring of energy consumption (Kim et al., 2015). The smart house in Toyota is

characterized with a home energy management system (HEMS) that can monitor energy generation and consumption. Toyota has promoted the Eco-Family Card with “eco-points” that can be exchanged for certain products. When registered citizens purchase an ecological product with the Eco Family Card at a greenly affiliated store or recycle something at a designated place, they can receive points. Once a certain number of points have accumulated, they can be exchanged for certain goods, such as stationery, bus tickets, or gift certificates.

A previous study conducted through surveys with 271 respondents around Toyota City station in June 2016 showed that there are quite a few citizens who know about the above-stated eco-items, but they do not actually act on them (see Ito and Kawazoe, forthcoming, for details). For instance, only one respondent actually reported that she lived in the smart house, and no respondent reported that they ever used Ha:mo. There were 27 respondents who actually drove NGCs, 16 respondents who had been to Ecoful Town, 15 respondents who used eco-points, and 10 respondents who used greening as a countermeasure against the heat island effect. The current research thus examines why most citizens do not act on eco-items despite their knowledge about them.

3. Methodology

3.1 Sample

The participants of this study are members of an environmental NPO headquartered in Toyota. They were targeted for this study because this is the largest environmental NPO in Toyota and they have been working on addressing environmental issues with the city government and thus are familiar with the city’s eco-policy and are likely to be able to provide feasible explanations about why citizens do not act on, while knowing, the eco-items comprising the eco-policy.

The president of the NPO helped the author to arrange the focus group interview. He inserted a brochure in a monthly newsletter describing the research and requesting potential interviewees. The newsletter was distributed to relevant stakeholders who are involved in eco-activities of the NPO. In total, six individuals (three males and three females, all over 40 years old) participated in the focus group. Each participant was compensated 2,000 yen (or the equivalent for 20 USD).

3.2 Focus Group

A focus group interview is a particular kind of group interview. As Cohen et al. (2011) explain that a focus group interview encourages the interaction of a group who discuss a topic provided by the researcher, leading toward a collective view. Thus, “[i]t is from the interaction of the group that the data emerge...to discuss a particular given theme or topic, where the interaction with the group leads to data and outcomes” (p. 436). Breen (2006) explains that a focus group interview is employed to “to generate [new] ideas for the purpose of devising recommendations for future change” (p. 464).

The number of participants for this study was six. This number falls into the range often suggested in the literature for focus group. Rabiee (2004), for example, notes: “the number generally suggested as being manageable is between six and ten participants; large enough to gain variety of perspectives and small enough not to become disorderly or fragmented” (p. 656). Krueger (2002) also suggests a similar number of participants for a focus group, but between six and eight are preferred.

The group should have homogeneity of background in the required research area: otherwise the discussion will lose focus (Rabiee, 2004). This study meets that criterion as well: all the participants are involved in eco-activities with the same environmental NPO in Toyota.

3.3 Procedure

At the beginning of the focus group discussion, the author provided the context of why this study was being conducted. The participants then filled out the questionnaires that asked whether they knew about certain eco-items comprising the eco-policy and whether they acted on these items (Table 1).

After filling out the questionnaire, respondents were asked why they were aware of certain items or not, and why they act or do not act on these items. For instance, they were asked why those who already have NGCs decided to buy them. Is it for economic reasons (e.g., eco-friendly cars are energy efficient and economical) or environmental reasons (e.g., eco-friendly cars produce less CO₂)? Similarly, why are some respondents not considering purchasing NGCs? Is it for economic reasons (e.g., eco-friendly cars are initially more expensive than gas fuel vehicles) or environmental reasons (e.g., not having cars is the most environmental friendly)? Similar questions and discussions occurred regarding the reasons for acting, or not acting, on other items such as Ha:mo and eco-points.

Table 1. Questionnaire items

Eco-theme	Survey Questions
Transportation	Q1. Do you know about NGCs?
	Q2. Do you ride NGCs?
	Q3. Do you know about Ha:mo?
	Q4. Have you used Ha:mo?
Urban Center	Q5. Do you know about the heat island effect?
	Q6. Do you take measures against the heat island effect?
	Q7. Do you know about the Ecoful Town?
	Q8. Have you been to the Ecoful Town?
Public Welfare and Livelihood	Q9. Do you know about the smart house?
	Q10. Do you live in the smart house?
	Q11. Do you know about eco-points?
	Q12. Do you use eco-points?

The focus group took two hours. The length of the discussion also fits within the range often suggested in the literature (Rabiee, 2004). The participants were all familiar with each other and the interviewing place because the focus group took place in the environmental NPO's building where they work. Therefore, assumably, they were comfortable in giving their opinions during the focus group interview.

4. Results

4.1 Next Generation Cars (NGCs)

Among the participants, only one participant actually drives an NGC. He is satisfied with his NGC because he spends little money on gas: "I go to the gas station only every three month. The owner of the gas station is a friend of mine, and he is now mad at me because I hardly go there."

One participant, who did not own an NGC, showed a concern about the possible defects of NGCs: "the systems of NGCs are supposed to be more complicated than gas fuel cars and may thus be easier to break or more difficult to repair." She was also concerned about the lifespan of the lithium battery installed in NGCs: "If we have to replace the battery with a new one within 10 years, it will neither be economical nor ecological." Whereas she recognizes the advantages unique to NGCs such as storing and provision of electricity, "I prefer to wait and see until everyone around me will have NGCs."

Another participant mentioned an economic benefit of not having NGCs: "Gas fuel cars are still much cheaper than NGCs. Also, light-weight, gas-efficient cars are almost as energy efficient as NGCs. That is, gas fuel cars can be more economical than and as ecological as NGCs."

Another participant claimed that she finds it easier to drive a light gas fuel car: "For example, Prius [TMC's PHV] is too big and hard to drive. If we have car accidents because of difficulty in driving NGCs, what is the point of driving them? For safety reasons, I prefer to drive a light-weight, gas-efficient car."

4.2 Ha:mo

There were two participants who did not know about Ha:mo. Those who knew about Ha:mo said that they came to know it via the mass media such as TV or newspapers when it was built. Yet, all participants said that many people around them do not know about it yet. One participant reported: "While Ha:mo is established around the Toyota City Station and people often see it, they don't know what it is. Ha:mo has not been promoted well by the city government." This participant continued to argue: "If people have their own cars, they do not consider using Ha:mo. Why do they have to go all the way to the Ha:mo station to rent EVs and go back to leave them again in the station?"

One participant said that if there were Ha:mo in the city center of Tokyo or Nagoya where millions of people live, instead of Toyota, it would have been more popular. However, Toyota, with a population of fewer than 500,000 and more than 90% of households owning cars, is not suitable for a transportation system like Ha:mo. One participant said: "Unless Ha:mo is located nearby, no one would use it."

4.3 Heat Island Effect

Some participants said that the term heat island effect was popular in Japan a decade ago but not anymore. One participant said: “Nowadays, the term heat island effect has been replaced with or included in the term climate change or global warming. With regard to greening, a common measure to be taken against the heat island effect, one participant said: “green curtains [shade made by plants] are becoming popular and we now often see them even in ordinary houses in Toyota.”

4.4 Ecoful Town

All participants have been to Ecoful Town. They went there for various reasons. All female participants said that they went there to have coffee or lunch with their female friends at a restaurant called Hogaraka, which serves local organic food, located inside Ecoful Town. A previous study indicated that Hogaraka was popular among women in their twenties (Ito, 2014). The current research suggests that Hogaraka may be popular with women across various ages, as all participants for the current study are over 40 years old. One female participant said that Hogaraka became popular among women due to word of mouth.

A male participant said that he sometimes goes there because he likes to walk and passes by Ecoful Town. However, all participants said that Ecoful Town may not be an adequate place for family with children because there is no place where children can play around or enjoy themselves.

4.5 Smart House

No participant claimed that they lived in the smart house. Some participants, however, said that they have installed solar panels and LED lights, though not HEMS. One participant asked: “What is the precise definition of the smart house? My house may not be the smart house because there is no HEMS, but we have solar panels and the cost of electricity is absolutely zero.” Another participant said that the city government should subsidize not only citizens buying the smart house but also those who install solar panels or even LED lights because they involve, at least partially, smart house components.

4.6 Eco-points

Eco-points have been introduced and promoted by the city government during civic events. According to the participants, however, many people do not know how to use the eco-points. One participant claimed: “those who are not interested in protecting the environment would not participate in eco-related civic events and will not know about it.”

Another participant pointed out: “While I enjoy collecting points, the process of the registration may be found troublesome. Those who want to use eco-points need to take some time to register to get the eco-point card called the Eco-family Card, collect eco-points by doing eco-activities or buying eco-products, and use them at stores greenly affiliated with the city government. Many people, especially the rich people who may not be interested in the subtle benefits of having eco-points, would probably not do it because they find it troublesome.”

5. Discussion

This study examined why Toyota citizens may not act on eco-items comprising the eco-policy while they recognize these items. Findings suggest that citizens do not act on the eco-items for economic, ecological and other reasons. For example, while driving an NGC can be ecological and economical due to its energy efficiency. NGCs are more expensive at the time of purchase and do not have up front economic benefits. Also, some participants believe that they are acting environmentally friendly by not driving NGCs, given the assumed short life span of the lithium battery. Driving a light gas fuel car can be more ecological, more economical, and easier to drive. Likewise, while no participant lives in the smart house, they believe that they are at least partially, acting on the smart house item by installing solar panels and LED lights. They believe that the city government should provide more subsidies to citizens with intentions of installing smart house items.

Regarding Ha:mo, while they recognize the benefit of using it for the environment, they find it too troublesome to actually use. There are few convenient Ha:mo stations where they can rent and leave EVs. It might be used more if a network of stations was created that better coincides with the daily lives of citizens. Less troublesome than Ha:mo, eco-points were used by all participants in this study; however, they suggested that the eco-point registration and usage process might be too troublesome for other citizens to go through the process of acquiring it and using it.

Unlike the four eco-items discussed above, Ecoful Town and the heat island effect have been acted on relatively highly: more and more citizens go to Ecoful Town and green curtains are increasingly common. The participants believe that these two items will gain more popularity in the future.

6. Conclusion

To facilitate the use of the rest of the eco-items that have not been acted on, the following is suggested: the development of cheaper and smaller NGCs which are easier to drive; the extension of the definition of the smart house, and more governmental support for the installation of smart house items such as solar panels and LED lights; more installation of Ha:mo stations; and a simpler process of registration for eco-point cards.

Possible reasons that citizens do not act on eco-items are not solely ecological or economic but a mixture of both ecological and economic reasons and some other factors (e.g., safety, convenience). Also, it seems that citizens may not be fully engaged in the 'eco-items' defined by Toyota; yet a closer look at their actions suggests that they are taking actions in ways that approximates 'eco-items.' For instance, not many citizens may own the smart house, but they are making upgrades to their houses to make them more environmentally friendly. Perhaps Toyota needs to broaden the ways that their eco-items can be achieved. Along with NGCs, driving light-weight gas-efficient vehicle could be included in the transportation theme.

7. Future Research

The participants for this study, as those who work in the field of environmental protection, are naturally aware of issues with the eco-items comprising the eco-policy. Yet, general citizens may have different perspectives on these items. Semi-structured interviews with citizens about the city's eco-policy could help us understand more about why citizens know about certain aspects of the policy and how actions related to the policy could be better promoted. Also, another focus group interview dedicated to asking respondents about what eco-items they think could be added to Toyota's eco-policy would be useful. This could clarify how citizens may take actions that approximate existing eco-items.

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People Affected with HIV: Experience of Counselling Contributes to Emotional Support

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Abstract

This qualitative study aimed to investigate the impact of the experience of counselling and the emotional support that it provides of people affected with HIV in Terengganu. A total of 10 people affected with HIV participated in this study, selected by purposive sampling. Data were collected using semi-structured interviews, diary entries and non-participant observations on two occasions for every participant. The data were analysed by thematic analysis in order to identify themes related to the participants' experiences. The findings showed that the counselling sessions created opportunities for the participants to share their stories, which contributed to their feelings of being supported and understood. They also felt motivated to face their daily struggles in a more positive way. In addition, they experienced feelings of relief due to the opportunity to share their experiences with the counsellor. The feelings of being supported, understood, appreciated, motivated and relieved experienced by people affected with HIV provided them with emotional support. Implication of the findings, counselling sessions contributed to the feelings of being supported and understood, thus motivated people affected with HIV in facing their daily struggles in a more positive way.

Keywords: people affected with HIV, emotional support, counselling experiences, qualitative research

1. Introduction

People affected with HIV often experience negative feelings and behaviour. Gordillo et al. (2009) mentioned that people affected with HIV suffer from emotional disorders, such as anger and fear inherent in them. Indeed, those with HIV are more likely to experience of stigma and discrimination (Rispel, Cloete & Metcalf, 2015). It is evidenced that emotional support is strongly associated with physical and psychological adjustment in people affected with HIV (Gordillo et al., 2009). In relation to this, counselling sessions can help people affected with HIV to feel positive about themselves when facing difficulties (Soon & Barnard, 2000).

2. Literature Review

There are previous studies conducted in understanding people affected with HIV. According to Haslee Shahril (2007), people affected with HIV will experience the fear of death, a dead end in their careers, people's views and life plans and start to engage in self-denial. These negative feelings may begin at diagnosis, with affected people beginning to change their behavioural patterns immediately after testing positive, preferring to isolate themselves without doing anything. They may prefer to live alone without receiving external support (Marks, 2005) due to the stigma associated with HIV infection (Gilbert & Walker, 2009). This may cause them to experience more stress and emotional disturbances and have a tendency to commit suicide (Pursell, Fanner & Barnes, 2013).

Tudor, Keemar, Tudor, Valentine and Worall (2004) highlight Rogers's view of human development and the importance of being in a relationship. According to these authors, an individual cannot be fully human without being in a relationship. Rogers (1951) stated that relationships with others help individuals to understand themselves, contributing to positive feelings about themselves. Every individual needs positive attention and needs to be loved, liked, respected, admired and accepted by others, including family members. In real life, people do not always receive the positive attention they require; often they experience negative attention that could cause tension and stress. Furthermore, individuals often receive negative and positive attention at the same time, enabling them to manage tension and stress despite the negative attention that they receive. The human need for love and acceptance are natural, thus, relationships with others, including family members and members

of the community, are very important in developing a sense of love and affection (Rogers, 1961). In relation to the people affected with HIV who choose to live alone, do they need to experience love, being liked and accepted by others?

Emotional support has a significant role in a close relationship (Burleson, 2003). In other words, emotional support will be experienced by an individual in a close relationship with others. Emotional support helps distressed people to work through their upset by listening to, empathizing with, and actively exploring their feelings (Burleson, 1984). In addition, the support provided by close relationships would help those in need to cope effectively with their problems, manage upset and maintain a positive sense of self, that is, emotional support contributes to an individual's personal well-being.

Counselling is an important support service that may help people affected with HIV. Many previous studies examined on risk education counselling (Kanekar, 2011), safe sexual practices (Wolpow et al., 2014) and adherence counselling practices (Golin, 2004). In other words, those previous studies (Kanekar, 2011; Wolpow et al., 2014; Golin, Smith, & Reif, 2004), did not address experience of engaging in counselling session among people affected with HIV. However, a recent study by Christopoulous et al. (2013) showed that people affected with HIV discussed a lot of emotional stress and their needs for emotional support. Reflecting on the idea of Rogers (1961), the relationship between a counsellor and a client provides emotional support that helps the client to understand his or her own experience. In relation to this, Soon & Barnard (2000) confirmed that the experience of counselling assisted people affected with HIV by providing reassurance and comfort, as well as necessary information about the disease process, including lifestyle advice. The study also confirmed that people affected with HIV experienced limitations to their lives due to issues related to social stigmatisation. In addition to this, Zinck and Cutcliffe (2013) informed that counsellors could do a great deal to inspire and encourage maintenance of hope among people affected with HIV, especially facilitated self-acceptance as well as influenced them to confront their changed reality and make meaning of experience.

In light of the evidence that those affected with HIV often suffer from emotional disorders (Gordillo et al., 2009), requiring emotional support (Johnson & Pilcher, 2013) that can be provided by counselling (Rogers, 1961), this study will consider in what ways people affected with HIV experience emotional support during a counselling relationship.

3. Methodology

This study was performed using qualitative methodology. The main focus of this research was not to search for objective facts and objective truth, but the subjective experience captured in the individual stories of people affected with HIV. Qualitative methods allow the experiences of study participants to be interpreted and explained in the context of a specific environment (Denzin & Lincoln, 2000). A major feature of qualitative data is that they focus on the naturally occurring in a natural setting (Miles, Huberman & Saldana, 2014), generally disclosing or reflecting the language or words used in day-to-day life, and often incorporate words of the participants themselves to describe the psychological event, experience or phenomenon (Patton, 2002).

This study was conducted with people affected with HIV at a shelter home, which only housed this particular group. Ten subjects were selected based on purposive sampling to participate in this study, which are, living at this shelter home and regularly participating in counselling sessions. They are voluntarily living at this shelter home. This shelter home is community based project funded by non-governmental organization in the East Coast of Malaysia. Prior to the data gathering process, a list of names of those affected with HIV engaged in counselling sessions was obtained from the management office of this shelter home. The subjects were approached to participate, the research was explained and they were encouraged to participate in the study by the researchers. Sensitivity to the challenges and ethical issues of interacting face to face with the potential participants is crucial (Cresswell, 2012), which contributed to trust in relationship between researcher and participants. In total, ten participants volunteered to participate in this study.

The participants gave their informed consent prior to the data gathering stage. The process of obtaining informed consent explains the purpose of the study and assures the participants of the confidentiality of the information obtained during the study. According to Berg (2009), informed consent is about knowledge of something that has been agreed upon by the individual to participate in an event based on their choice, free from the elements of assault, threat or injustice or manipulation. Being open about the project or research will help develop a sense of trust between researcher and participants (Miles, Huberman, & Saldana, 2014). It is hoped that informed consent promotes an awareness of the participants of the confidentiality of the information as well as the experiences that have shared in this study.

The study involved a semi-structured interview, a non-participant observation and diary writing, with the

semi-structured interviews providing the main data of the study. Prior to the interview session, the researchers gave power to the participants to decide on the date, time and place for the interview as this research aims to understand their experiences, and being able to make such decisions may create feelings of readiness to share their experiences. In other words, from the beginning of their participation, they could feel their importance, and these feelings may promote their willingness to cooperate in the interview.

The interview protocols and questions were prepared prior to the actual data gathering, with preliminary interviews conducted first with non-research participants. These preliminary interviews were to gain experience in conducting interviews and facilitating the participants' stories. They also helped to define the interview style and how to handle the participants' accounts. Referring back to the actual data gathering process, each subject participated in two interviews conducted after their counselling sessions. The emphasis of a semi-structured interview is on meaning (Willing, 2008). In addition, the semi-structure interview is flexible to gather information, allowing the participants to describe their experiences in their own words and ways (Merriam, 1998). Therefore, the researcher is required to understand what is meant by interviewee without considering how they have chosen to say it in that particular way. The semi-structured interviews enabled the researchers to ask questions systematically, but the answers given by the participants had no limit and no special structure. Most of the questions were designed to allow the researchers to explore more about the personal experience of participants, revealing their thoughts and feelings (Patton, 2002). Each interview lasted between 45 minutes and one hour, including time for warming up, the interviewing phase and time for cooling down at the end of the interview.

The interview questions employed in this study are as follows:

First interview

1. What you would like to describe your background?
2. What you would like to describe your current situation?
3. What are your strengths?
4. What are your feelings after discovered you are HIV positive?
5. What you would to tell me your experience in counselling?
6. Tell me your interest in engaging in counselling.
7. How your experience of relationship with the counsellor?
8. What are activities that were conducted during counselling?
9. Explain about impact of those activities on yourself.

Second interview

1. Tell me about your expectations on counselling
2. What are you ideas on counselling?
3. What are changes that occur as a result of counselling?
4. Things that contribute to changes that mentioned.
5. Your satisfaction on the counselling that have been engaged.
6. Your feelings after have been through in counselling.

Observational data was also collected in this study. The purpose of observational data is to describe the setting that was observed, the activities that took place in that setting as well as the people who participated in those activities (Patton, 2002). The advantages of observation include the opportunity to record information as it occurs in a particular setting and to study actual behaviour (Cresswell, 2012). Observation is essential in gaining a holistic perspective of the individual because it captures the context in which people interact (Patton, 2002). In this study, a non-participant observation was performed, when the researcher visited the shelter and recorded notes without becoming involved in the activities of the participants (Cresswell, 2012). As a non-participant observer, the researcher took notes about behaviour as well as the verbal and non-verbal communication patterns of study participants. The observation was performed twice for each of the study participants. In addition, the researcher also observed and video recorded the study participants while engaged in their counselling sessions, in particular, their verbal and non-verbal communication patterns.

Participants were also required complete diary entries. According to Berg (2003), writing a diary refers to a

record of the thoughts, feelings, opinions or actions which allow comparison of self-reported information by study participants during an interview and what was written in the diary. The diary provides opportunities for the research participants to write experiences, actions and about themselves (Gavin, 2008). In this study, participants were required to write about their experiences as a person affected with HIV and engaging in counselling sessions. They were required to complete pre-prepared statements, which were open-ended to provide freedom for the participants to choose their words and style in writing their personal experience. Each participant was required to complete two diary entries during the study period.

The open-ended statements for diary writing were as follows:

1. After engaging in counselling session, my feelings are
2. During the counselling session, I am doing
3. My feelings during the activities
4. What I learn from this counselling session
5. My view on counselling services

4. Data Analysis

In this study, data were analyzed using thematic analysis. This method is not concerned with the overall topic of the text analysis, rather the identification of themes and sub-themes (Howitt & Cramer, 2008). In this study, researchers used data from the interview transcripts and diary entries that been prepared by study participants to identify significant themes. The stories of the participants were treated equally. The interview transcripts and diary entries were read repeatedly in order to obtain an overall picture of the participants' stories. Then, a significant statement relating to the experience of the participant was highlighted. This process, obtaining an overall picture of the participant's experience and extracting a significant statement, was performed with each of the participants' stories. Then, the researchers created a description of the significant themes identified and prepared a report based on the themes.

5. Findings

The stories of Amran, Wan, Jaafar, Kama, Faizur, Fadzil and Kimi (these are not their real names) are presented below.

Amran, aged 47, was a hardcore drug addict and he acquired HIV three years ago through sharing needles. He also had tuberculosis. Amran has attended counselling sessions for the past six months at the HIV shelter home.

Wan, aged 45, was a hardcore drug addict, becoming infected through sharing needles and has lived with HIV for nine years. He also had tuberculosis and has attended counselling sessions for the past seven months at the HIV shelter home.

Jaafar, aged 37, was a hardcore drug addict, acquiring HIV eight years ago through sharing needles. He also had hepatitis and has attended counselling sessions for the past three months at the HIV shelter home.

Kama, aged 35, was a hardcore drug addict and he acquired HIV infection by sharing needles. Kama also had tuberculosis. He has had HIV for five years and attended counselling sessions at the HIV shelter home for the past seven months.

Faizur, aged 37, was a hardcore drug addict and became HIV infected by sharing needles. He also had tuberculosis and has lived with HIV for thirteen years. He has attended counselling sessions at the HIV shelter home for the past year.

Fadzil, aged 44, was diagnosed with HIV from his sexual relationship ten years ago. He became stressed and depressed with his situation, turning to drug use. Fadzil also had tuberculosis and has attended counselling sessions at the HIV shelter home for the past three months.

Kimi, aged 41, was diagnosed with HIV from his sexual relationship eleven years ago. He was also a drug user and had tuberculosis. He has attended counselling sessions at the HIV shelter home for the past two months.

The findings showed that the participants' experience of engaging in counselling developed meaningful feelings and that their interaction with the counsellor contributed to these feelings. In addition, their acceptance of the counsellor during the interaction helped them to feel emotional support, which contributed to feeling that they had the strength to face up to challenges they encountered as well as feeling relieved to have an opportunity to tell other people about their struggles.

Emotional support

Emotional support is about the experience of care, empathy, love, respect and trust in a relationship (Burlleson, 2003). Counselling sessions provide an opportunity to people affected with HIV to share their experiences with another person, being a counsellor. The interaction with someone who is willing to listen as well as to understand them creates positive feelings, that is, engaging in counselling sessions contributes to emotional support. The research participants indicated that the counselling sessions provided opportunities to express their stories, which contributed to them feeling supported and understood. Their accounts also indicated that they felt motivated to face their daily life in a positive way. In addition, they also revealed that they experienced feelings of relief due to having the opportunity to share their experiences with the counsellor. The experiences as told by the research participants are outlined below.

i. Supported and Understood

The research participants indicated that the counselling sessions provided opportunities to express their stories, as well as to experience acceptance, which contributed to feelings of being supported. According to Amran, counselling helped him not to dwell on HIV. He considered the counselling session as the only place to express his feelings:

"I have no place to speak about myself. However, during counselling sessions I can express everything that I would like to. People in outside world could not accept me, someone affected with HIV. Everyone would be scared of my situation. I feel relief when I can share everything in the counselling sessions."

Amran also said that acceptance of the counsellor is vital to people affected with HIV and that this acceptance gave him emotional support:

"I am totally need support of other people. During my feeling of sad and at my low self, when there is someone come and show their their concern, I feel appreciated."

Another participant, Jaafar, said that acceptance of the counsellor also made him feel understood and he considered the counselling sessions as an ideal place to express his feelings. The acceptance provided him with emotional support:

"I chose to attend counselling sessions because it is the only place that I feel comfortable. The counsellor was really understood how I felt. I can say and express everything to the counsellor."

In addition, Jaafar's non-verbal behaviour during the non-participant observation was similar to his verbal behaviour. He appeared comfortable and confident participating in the counselling sessions. He showed his serious attention during sharing stories in the counselling sessions.

Kama also mentioned in his diary that the counselling session was a place to express his feelings. He felt that he was understood and supported during the counselling sessions:

"I feel very comfortable and confidence because I have someone who is willing to listen to my feelings. At that moment I felt the counsellor was really understood and gave support me."

The participants indicated the opportunities to tell their stories during the counselling sessions and that the acceptance of the counsellor contributed to their feelings of being understood and supported, which they could not receive from other people.

ii. Feeling Motivated

Being in a counselling relationship is also considered as a source of motivation for the research participants, particularly in facing struggles in daily life. Amran indicated that the counselling sessions provided him with encouragement and motivation:

"When I got depressed, everything was disturbed. I refused to take medicine. So by attending the counselling sessions it helped me to have courage and motivation. Engaging in counselling creates support for me."

Wan also stated that his experiences in the counselling sessions also motivated him and he considered the counselling sessions as a main priority:

"Now, I think that counselling is my first priority because it helped me a lot, especially to motivate myself. I feel more calm and no more stress after attending counselling sessions. Counselling is very important to me."

Faizur also considered the counselling as motivational. He said that the experience of engaging in counselling sessions contributed to his self-awareness about his life as someone with HIV:

"I am aware of my self and having some courage to continue my life. The counsellor understood how I felt. The

counsellor was very concerned towards my struggles. This is the reason that I still continue to attend counselling sessions. I think it is the best me."

In addition, Faizur's non-verbal behaviour was similar to his verbal expression. He looked comfortable in the counselling sessions, giving positive responses and engaging in the activities. He also stated in his diary that counselling contributed to his feelings of being understood, which promoted his motivation:

"The counsellor was really understood my situation, I am a bad person with HIV. When I mentioned about feeling of sad, the counsellor showed his care towards me. I can forget all the sadness through his encouragement."

Kama wrote in his diary about how the counselling sessions were a source of motivation to him. He said that the activity of life charts conducted during one of the counselling sessions made him realise that he needed to be more positive about life:

"I like the activity of life charts because it made me to see my self in the real situation. I am aware that my life has to be changed for the better from day to day. "

Kimi also mentioned the activities during the counselling sessions. For him, the drawing activity about his future life led him to aim for a better future:

"I prefer to do the activity of life chart during the counselling session because from that I can realise about myself. I know I have to change and become a better person."

The participants indicated that counselling was a source of motivation; they wanted to do better in their lives as a result of the counselling sessions. The encouragement of the counsellors gave them the strength to better their lives.

iii. Feelings of Relief

The participants reported that being in a counselling relationship generated feelings of relief. Amran wrote in his diary about feelings of relief as a result of the counselling sessions:

"I felt relieved during the counselling session. The counsellor can really understood my situation. It is so obvious that I can feel the difference when I share my story with the counsellor and an ordinary person. Counselling is better for me, especially to have someone to understand my feelings."

In addition, Amran's behaviour also indicated his calmness and confidence in sharing experiences in the counselling sessions.

Wan felt that his experience in the counselling sessions created feelings of relief, especially being with someone that was willing to listen to his story:

"I am wanted to attend counselling sessions because it gave me some strengths to continue my life as a person affected with HIV. I felt relief everytime I attend counselling, having someone to listen to me, it is really important to me. "

In addition, Wan was observed crying while sharing his story, however, he managed to smile at the end of the counselling session. In his diary, Wan also expressed his experiences in the counselling sessions:

"Now I felt stressful. I miss my family so much. Unfortunately I could not afford to go back home. I shared and expressed my feelings to the counsellor. I felt relief because there was still someone who is really can understand how I feel. I think the counsellor was really understood my self. I feel supported when I am facing difficulties."

Kama also said that counselling experiences helped him to eliminate the stress:

"I chose to attend counselling because it helps me in dealing with my feelings, a kind of support to my feelings. I feel strong to do changes in my life. I can forget all the pressures in my life. "

Observation of Kama showed him to be comfortable, giving positive responses in the counselling sessions and looking confident when telling his story.

Another participant, Fadzil, said that the counselling sessions provide an opportunity for him to express his feelings and he felt relief after doing that in the session:

"I still remembered that I shared a lot during the counselling session and then I feel relieved"

Fadzil also reported that he satisfied when he expressed his feelings and that he felt appreciated when the counsellor supported him:

"I expressed my feelings during the counselling sessions, and told the counsellor about myself. I felt that the counsellor could understand me. I am satisfying with counselling, I am happy because I received some moral supports from the counselling. It is not easy to get supports from others, but I get it through the counselling."

In addition, observation of Fadzil showed that he looked serious when sharing his story in the counselling session but that he appeared calm after the session. In his diary, Fadzil wrote about the support he received through the counselling sessions:

"I feel comfortable to share my feelings with the counsellor. The counsellor was really understood me. I can feel that there is a strength in me when I received supports from the counsellor. I am to thankful to the counsellor who is always understand me."

Another participant, Jaafar, wrote in his diary about how he felt calm when he received support during his sharing in the counselling sessions:

"I was so depressed when I am thinking about my children. However, I felt relief when I was accepted everytime I attended the counselling session. The counsellor was really understood and supported me. I think counselling is very important to me."

In summary, the people affected with HIV in this study reported that the experience of engaging in counselling provided them with the opportunity to share their experiences with the counsellor. Being with someone willing to listen to their stories promoted feelings of support, motivation and relief, that is, counselling provided the research participants with emotional support. Their stories indicated that they only experienced this emotional support when they engaged in the counselling session and with the counsellor. Experiencing the emotional support provided them with the strength to continue living.

6. Discussion

Being in a relationship with a counsellor provides an opportunity to encounter a meaningful experience. The results of this study indicate that people affected with HIV experienced feelings of being understood, supported and relieved while engaging in a relationship with the counsellor. In other words, the counselling sessions and the counsellors provided emotional support to people affected with HIV. Emotional support is a significant experience in the life of people affected with HIV; being able to experience emotional support helps them to view their lives in a more positive way.

The participants reported that their relationship with the counsellor provided them with opportunities to share their experiences, enabling them to deal with struggles and stress, contributing to feeling understood and supported. These findings are in accordance with Burleson's view (1984, 2003) that the support provided by close relationships would help those in need to cope effectively with their problems, manage upset, and maintain a positive sense of self. In addition, this study supports previous research by Soon & Barnard (2000) and Chritopoulous et al. (2013) of the impact of counselling on people affected with HIV. For example, Amran and Kama reported that they managed to deal with feelings of upset and to promote feelings of confidence as a result of this relationship. In addition, the findings of this study confirm that the relationship with others in helping individuals to understand themselves contributes to positive feelings about themselves (Rogers, 1951). Despite this, the research participants were living at a shelter home with limited access to significant family members, which might disturb their potential in creating positive feelings about themselves.

This study also indicated the way in which the emotional support helped people affected with HIV, for example, Wan managed to control his negative feelings. As a result of emotional support that he experienced in counseling sessions. Rogers (1961) said that individuals receive negative and positive attention at the same time, however, they are able to manage tension and stress despite the negative attention that they receive. With regard to Wan, despite his negative feelings, he was able to focus on his feelings of happiness, which is having someone to listen to his story. In addition to idea of attention, these findings further supported the study by Zinck & Cutcliffe (2013), which found that the qualities of counsellors that had promoted self-awareness among people affected with HIV, and those three qualities were counsellor's self-awareness, counsellor knowledge of HIV/AIDS as well as counsellor hope and expectancy. In other words, knowledge of HIV/AIDS would help a counsellor in creating an emotional support to people affected with HIV.

The participants also reported that the opportunity to share their experiences made them feel motivated to face up to their struggles and challenges. As discussed previously (Soon & Barnard, 2001; Gordillo et al., 2009), counselling helps people affected with HIV to feel strong about themselves. Indeed, Jaafar believed that counselling was an important experience in providing motivation as someone affected with HIV. Amran also mentioned that counselling is an important requirement for him, especially to help him realise his responsibilities.

Moreover, Faizur reported that counselling made him aware of his responsibility towards himself, as a person affected with HIV. The impact of the emotional support provided by counselling motivated those affected with HIV and increased their awareness of their responsibilities.

Previous research has discussed the negative experiences of people affected with HIV (Gordillo et al., 2009; Marks, 2008; Pursell, Fanner, & Barnes, 2013). In relation to this, Okwun and Siraj (2010) mentioned that the main goal of counselling sessions must be focused on the emotions of clients affected with HIV. With regard to this study, the participants reported feelings of relief as a result of having someone willing to listen to them, that is, they experienced emotional support. People with HIV often experience anger, fear, as well as self-denial (Gordillo et al., 2009; Marks, 2005; Pursell, Fanner, & Barnes, 2013; Haslee Shahril, 2007), which may be related to being unable to share their daily struggles and challenges. Being able to share and tell the counsellor their stories generated feelings of relief, for example, Kama stated that counselling helped him deal with his stress. However, prior to engagement in counselling, the research participants believed that they needed to keep their stories to themselves as no one would want to listen to them. As highlighted by Rogers (1961), individuals can only understand themselves better when they are in relationship with other people. With regard to the research participants, they managed to understand their experiences and accept their responsibility with help of the counsellor during the counselling sessions. The counsellor, by being accepting, non-judgmental and genuine, helps those with HIV to feel comfortable to engage in counselling, ultimately allowing them to have meaningful experiences (Rogers, 1951). In addition, counsellor's self-awareness, counsellor knowledge of HIV/AIDS as well as counsellor hope and expectancy (Zinck & Cutcliffe, 2013) would help in promoting positive daily lives.

7. Conclusion

The emotional support provided by engagement in counselling sessions is an important experience for people affected with HIV. The opportunity to share their experiences with someone willing to listen created feelings of support, being understood, motivation and relief, which had a positive impact on their daily struggle living with HIV. Therefore, counselling session that easily access to people affected with HIV is very important in helping them to discover new possibilities in life.

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Work Value Congruence and Job Performance: Buffering Role of Leader Member Exchange and Core Self Evaluation

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Abstract

Value congruence with the organization has shown a positive relationship with job performance of employees. This study aims to identify the impact of work relationships (LMX) and individual factor (CSE) on this relationship. We hypothesize that leader member exchange (LMX) and core self-evaluation (CSE) would interact with work value congruence (VC) to effect job performance. In a sample of 868 employees from various organization in India, we found LMX and CSE have positive moderation with VC to effect job performance. The results contribute to person-environment fit literature by demonstrating the buffering nature of LMX and CSE for low value congruence to increase job performance.

Keywords: Job Performance, Core Self Efficacy, Leader Member Exchange, Value Congruence

1. Introduction

Since the turn of the century, behavioural scientists have concerned themselves with understanding and enhancing organizational effectiveness by studying the behaviour of individuals in organizations (Wexley & Yukl, 1984). Job performance has become one of the most highly researched outcome variables in the behavioural sciences because good employee's job performance is critical for organizational effectiveness.

Individual Performance also has high significance for organizational practitioners well as researchers. In a review of 146 meta-analysis by Sonnentag and Frese (2002) 54.8 % of articles referred to individual performance as core construct, around 72.5% of articles referred performance as dependent or outcome measure. From practitioner point of view, understanding predictors of performance is important for employee, supervisor and organization for an employee good job performance will provide job security, career development, income, colleagues and work pride. High performers can feel pride and satisfaction. Externally performance is awarded by benefits and incentives. For a manager it will help in understanding the adjustment he needs to make to help an individual perform and achieve goals given by management. For organization it helps in achieving organizational goals. Thus to increase job performance it is important to understand it's predictors and their interaction on performance. Predictors of job performance ratings are at multiple levels (personal, organizational and managerial) (Waldman & Spangler, 1989). In this study we would take one variable for each level. CSE, value congruence (VC) and LMX, represents personal, organizational and managerial level predictor of job performance. We also contend LMX and CSE will affect the relationship between VC and performance.

Our study will make contribution as it identifies the condition under which value congruence – performance relationship is strengthened or weakened. It also contributes to person environment fit literature by identifying, mitigating effect of value incongruence by LMX and CSE. We would discuss value congruence and its relationship with job performance. Next we turn to discuss compensatory nature of LMX and CSE and develop hypothesis.

1.1 Value Congruence

Value congruence is degree to which two entities have similar values. In literature one finds congruence between employee and co-worker (Ostroff, Shin, & Kinicki, 2005), supervisor (Adkins, Russell, & Werbel, 1994) an organization (Hoffman, Bynum, Piccolo, & Sutton, 2011). In this study, we are focusing on value congruence between employee with organization. People choose occupation and organization on basis of their values (O'Reilly, Chatman, & Caldwell, 1991). Jung and Avolio (2000); Posner (2010) have also supported the need for

value congruence between individual and organization. In a recent review by Bao, Dolan, and Tzafir (2012), value congruence has shown positive relationship with job performance, job satisfaction etc. Erdogan et al. (2004) pointed out that value incongruence causes poor communication, cognitive dissonance and organizational non-identification all of which lead to lower performance.

There are different ways to measure value congruence one is objective (the value survey of both person and organization is done separately) and other is subjective (the perceived value of organization are extracted from the mind of employee using value survey). Though both subjective and objective value congruence have been positively associated with job performance, still subjective value congruence is more important than the objective value congruence (Edwards & Cable, 2009).

1.2 Value Congruence and Performance

Adkins, Ravlin, and Meglino (1996) agree that value congruence affects performance positively, this relationship is moderated by job tenure and nature of job. Also, Meglino and Ravlin (1998) identified that high value congruence may be detrimental to innovation and adaptability of the organization. They propose that heterogeneity in perspectives resulting from low value congruence is desirable to increase adaptability and innovation. Thus companies may prefer to hire employees with low value congruence to maintain competitive advantage, especially to increase innovation (Erdogan et al., 2004). Hence it's important to identify the moderators which can compensate for the negative consequences due to low value congruence.

1.3 Buffering Role of LMX

Leader member exchange (LMX) is based on social exchange perspective. It talks about dyadic influential relation between superiors and subordinates. Most LMX studies have involved LMX, employee attitude and behaviors. One of the most consistent finding is that LMX leads to job satisfaction. High LMX relationships provide resources to cope up with negative influences of value incongruence. High LMX employees experience more freedom due to supervisor support (Dienesch & Liden, 1986). Hence we expect that high LMX will buffer the negative consequences of work value incongruence.

Hypothesis 1: LMX will moderate the relationship between work value congruence and job performance such that the relationship between value congruence and performance will be stronger at high LMX as compared to low LMX.

1.4 Buffering Role of CSE

Core self-evaluations (CSE) refers to appraisal of one's own capabilities. Such assessment determines how much and for how long individual would put effort to achieve tasks (Judge & Bono, 2001). High CSE suggests that employee has high self-esteem, self-efficacy, internal locus of control and low neuroticism (Erez & Judge, 2001). High CSE leads satisfaction, commitment, less stress, motivation, and positive perception of job characteristics all of which leads to performance (Chang, Ferris, Johnson, Rosen, & Tan, 2012). High CSE employee have resources to cope with the negative influence of value incongruence. We expect that higher CSE employees can mitigate the effect of value incongruence with the organization.

Hypothesis 2: CSE will moderate the relationship between work value congruence and job performance such that the relationship between value congruence and performance will be stronger at high CSE as compared to low CSE.

1.5 Simultaneous Buffering Role of CSE and LMX

We hypothesised that both LMX and CSE will positively moderate the relationship between value congruence and job performance. It will be imperative to explore the change in VC-performance relationship by simultaneously changing LMX and CSE. We propose that CSE, LMX, VC (personal, managerial and organizational factors) will have three way interaction (moderated moderation) to effect job performance.

Hypothesis 3: The moderation effect of LMX on VC-performance relationship will be effected by the level of CSE. At higher level of CSE there wont be interaction between LMX and VC to effect performance.

2. Method

The methodology of study is based on positivist paradigm. The data collection method was purposive sampling including cross section of population (working population) from different companies in India.

2.1 Sample Description

The survey was distributed only to executive or managers in various firms in India. For the pilot study (to check reliability of measures) fifty-four responses were collected. For the main study a total of one thousand and

thirty-three responses were received through different modes of data collection. One hundred fifty-eight responses were deleted as they were either incomplete or unengaged (zero variance), or were not from executives. Seven responses were removed from sample as outliers on the basis of Mahalanobis distance criteria. For the final analysis we had 868 responses. The descriptive statistics of the sample is presented in following tables.

Table 1. Gender

Gender	Number	Percentage
Male	731	84.2
Female	137	15.8
Total	868	100

Table 2. Descriptive Statistics of Age

	Mean	Median	Mode	Std Dev	Minimum	Maximum	N
Age	33.54	31	30	7.487	21	71	868

Table 3. Three Age Groups

Age Group	Number	Percentage
29 and below	285	32.8
30-34	272	31.3
35 and above	311	35.8
Total	868	100

Table 4. Sector in Four Categories

Sector Category	Number	Percentage
Manufacturing	272	31.3
Finance	273	31.5
Infrastructure	148	17.1
Others	175	20.2
Total	868	100

Table 5. Function in Four Categories

Category	Number	Percentage
Business Development	168	19.4
Operations	294	33.9
Support	349	40.2
Others	57	6.6
Total	868	100

Table 6. Education Qualification

Educational Level	Number	Percentage
Up to Bachelors	372	42.9
Postgraduate and above	496	57.1
Total	868	100

2.2 Measures

Job performance is a latent construct having multiple dimensions made up of indicators that can be measured directly (Sabine Sonnentag, Volmer, & Spychala, 2008). The exact indicators will be different and specific to nature of job and sector; hence countless measures of job performance have been used. Many measures do not provide complete range of behaviours, which can account for job performance especially in this of age of dynamism (Griffin, Neal, & Parker, 2007). *“The lack of an agreed upon nomenclature is striking, and it gives the impression that attempts to explicate the latent structure of performance are quite in disorder”* (Campbell & Wiemik, 2015, p. 48). There were many scales available for measuring job performance. We combined (as practiced by Jiwen Song, Tsui, & Law, 2007) 15 items ($\alpha = 0.888$, appendix) to form a relevant measure of job performance in Indian context. As an alternative to self-reported and supervisor ratings on job performance, Schoorman and Mayer (2007) suggested researchers should ask respondents for their supervisor's assessment of their performance rather than for their own assessment. Hence we asked the question to employee; how would your supervisor would have rated you on the following (appendix) on five points from low (1) to high (5). An

exploratory factor analysis gave us four factor model. Model fit for two models ([a] with four factors and [b] with single factor) was conducted and we found better fit for single factor model. Value congruence ($\alpha = 0.711$) was measured through four items mentioned in appendix. CSE ($\alpha = 0.752$) and LMX ($\alpha = 0.869$) were measured using scales mentioned in (Judge, Erez, Bono, & Thoresen, 2003; Liden & Maslyn, 1998) respectively. All the measures were on five point Likert scale. We averaged all the items to generate scores for a construct.

Correlation, construct validity, mean and median of all the construct to be used in the study for hypothesis has been presented in Table 7. The diagonal represents square root of AVE (bolden) which is more than correlation between two factors, suggesting that each factor has internal variance greater than variance shared between factors. Also , the composite reliability (CR) for all constructs is more than 0.65, hence constructs have adequate construct validity (Fornell & Larcker, 1981).

Table 7 Construct Validity and Descriptive of All Variables

	Mean	S.D.	CR	CSE	VC	LMX	JP
CSE	3.57	0.509	0.711	0.765			
VC	3.68	0.676	0.738	<i>0.536</i>	0.655		
LMX	3.79	0.638	0.840	<i>0.403</i>	<i>0.413</i>	0.761	
JP	4.05	0.515	0.884	<i>0.461</i>	<i>0.375</i>	<i>0.482</i>	0.583

The correlations are in italics. CSE= Core Self Efficacy, VC = Value Congruence, LMX = Leader Member Exchanges, JP= Job Performance, CR= Composite Reliability

3.3 Control Variables

As our sample was from diverse background, hence we controlled for background variables (gender, education, sector, function, age) mentioned in sample description section.

3. Results

To test our hypotheses, we used hierarchical moderated regression analysis. Following Baron and Kenny (1986) in first step we regressed all control variables, in second step all main effects and in last steps the interaction effect. The main effects were mean centered as suggested by Cohen, Cohen, West, and Aiken(2003). The results of hierarchical moderated regression analysis are presented in table 8. Interaction plots for the same are presented in Figure 1 (VC*CSE) and figure 2 (VC*LMX). In the figures, Y, X, M, L,0 and H denotes dependent variable, independent variable, moderating variable, low level (mean-SD), mean and high level (mean + SD) respectively. As can be seen from Table 8 we observed significant interaction between (i) LMX and VC ($\beta = 0.064$, $p < 0.05$) (ii) CSE and VC ($\beta = 0.080$, $p < 0.05$), hence hypothesis 1 and 2 are supported. We also observed a three-way interaction between VC, LMX and CSE ($\beta = -0.0278$, $t = -2.379$, $p = 0.0176$, $\Delta R^2 = 0.0050$) and is plotted in Figure 3.

Table 8. Hierarchical Regression Testing for Moderation

	Step 1	Step 2	Step 3		Step 1	Step 2	Step 3
Age	0.104*	0.050	0.045	Age	0.104*	0.077*	0.079*
Sector	0.064	0.04	0.040	Sector	0.064	0.022	0.022
Function	0.016	-0.021	-0.022	Function	0.016	-0.024	-0.022
Education	0.032	0.00	-0.001	Education	0.032	0.020	0.018
Gender	0.012	0.038	0.037	Gender	0.012	0.043	0.043
VC		0.213*	0.227*	VC		0.179*	0.192*
CSE		0.249*	0.245*	LMX		0.354*	0.359*
VC*CSE			0.080*	VC*LMX			0.064*
ΔR^2	0.015*	0.133*	0.006*	ΔR^2	0.015	0.189*	0.004*
R^2	.015*	0.147*	0.15*	R^2	0.015*	0.204*	0.208*
Adj. R^2	0.009*	0.140*	0.146*	Adj. R^2	0.009*	0.197*	0.2*
ΔF	2.561*	66.954*	6.33*	ΔF	2.56*	102.17*	4.220*

*- significant at .05 percent

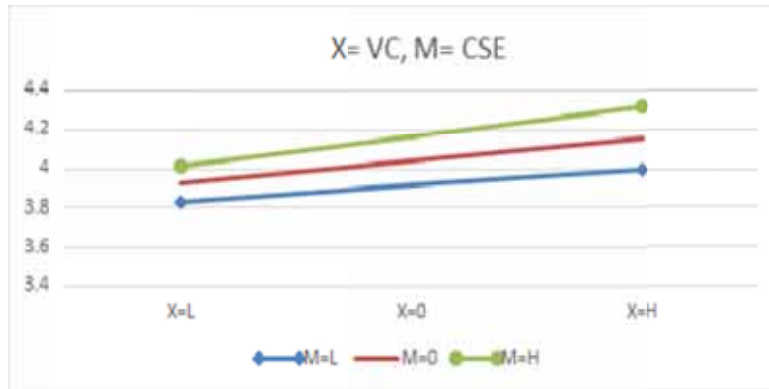


Figure 1. The Relationship Between VC and JP for high and low levels of CSE

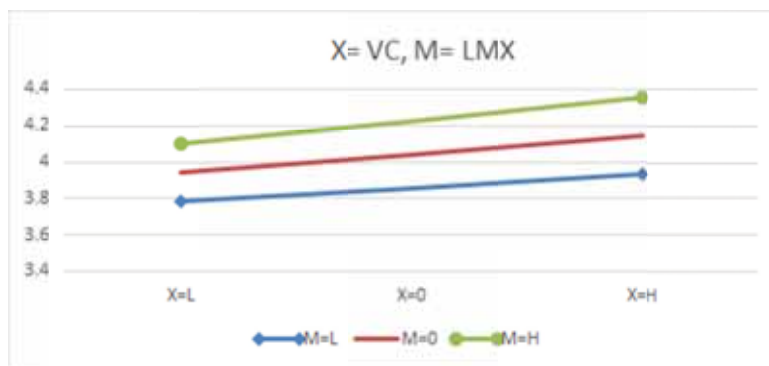


Figure 2. The Relationship Between VC and JP for high and low levels of LMX

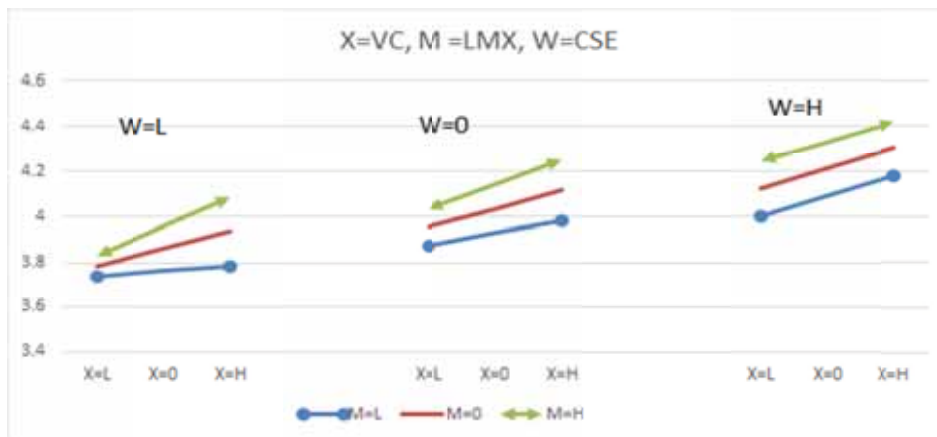


Figure 3. Three way interaction between VC, LMX and CSE

4. Discussion

Results of the current study demonstrate that LMX and CSE positively moderate the relationship between value congruence and performance. At low levels of CSE and LMX, the effect of value congruence on job performance is very low. Suggesting that for value congruence to positively affect job performance, there has to be a minimum level of LMX and CSE. At higher level of CSE and LMX, the low level of congruence can be compensated by LMX and CSE. Value congruence has been positively associated with job performance possibly through mechanism of organizational identification and not having to go against one's personal values. On the other hand, to achieve innovation organization would hire people with different values and outlooks. The organization can avoid negative consequences due to such value incongruence by buffering effect of LMX and

CSE. From figure 3 it can be seen if the employees have high level of CSE, then the impact of LMX on value congruence-performance relation is not there. It means one need not increase both LMX and CSE based on Figure 1 and 2, as simultaneously increasing both of them will not always provide desired result of increase in performance.

5. Implications & Conclusion

5.1 Theoretical Implications

Our finding contributes to person environment literature, by highlighting that if there is low person-environment fit for an employee its negative effects can be mitigated by leader support and self-esteem of employee.

Erdogan et al. (2004) found negative interaction between value congruence and LMX to effect intrinsic career success in an academic setting. Our results demonstrate a positive interaction between value congruence and LMX to effect job performance in an organizational setting. Posner (1992) demonstrated there is no demographic moderator (“age, gender, ethnic background, organizational level, management position, length of service, and functional area”) of value congruence and work attitude relationship. However, we have found positive moderation of CSE on VC and performance relationship.

We have positive correlation between VC-CSE and VC-LMX relationship. It suggests that people with higher self-esteem will tend to have higher value congruence. On the other hand, if person has higher value congruence his relationship with leader will be better. Also correlation of VC-CSE (0.536) is higher than VC-LMX (0.413) relation. It suggests that even there is low LMX, but employee has high self-esteem, he can have value congruence with organization.

5.2 Managerial Implications

Literature has reiterated that value congruence with organization leads to job performance and job attitudes. For example Kalliath, Bluedorn, and Strube (1999); O’Reilly et al. (1991) found relationship between value congruence and job satisfaction, which leads to job performance. Only hiring employee with congruent values will not always increase performance. There has to be minimum level of leader support and self – esteem in employee for value congruence to show desired positive effects on job performance.

Managers may think to recruit employees with high value congruence to increase performance. This causes increase in homogeneity accompanied by lack of creativity. So how does organization promote creativity without damaging job performance? Our results suggest ways in which organization can mitigate this negative effect of value incongruence. By providing support from leaders or/and hiring people with higher self-esteem, organization can mitigate the effects on negative effects of low value congruence.

If the management is hiring people with high self-efficacy and value congruence, then management can decide to give less support from leadership, as higher support at one point can be detrimental to employee job performance.

5.3 Conclusion

Given the importance of job performance, executives should understand the predictors of job performance. According to this study value congruence is positively effecting job performance, LMX from organization can buffer and improve this relationship. Moreover, if management hire people with high self-esteem they would likely to have more value congruence with organization.

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Appendix

Job Performance

1. She/He comes up with ideas to improve core tasks
2. She/He applies innovative ideas
3. She/He exhibits a willingness to go beyond what the situation requires
4. She/He adapts readily to changing rules
5. She/He presents a positive image of the organization to others
6. She/He participates in meetings
7. She/He applies his job knowledge
8. She/He has knowledge required to get the job done
9. She/He expresses himself and understand others in writing
10. She/He gathers and transmits information appropriately in oral form
11. She/He maintains smooth and effective working relationship
12. She/He produces quality work, even under time pressures
13. She/He manages his time effectively
14. She/He responds flexibly to overall changes in the work unit and organization
15. On his/her own initiative, she/he starts new tasks when his old tasks were completed.

Value Congruence

1. My organization's values provide a good fit with the things I value.
2. Since starting this job, my personal values and those of this organization have become more similar.
3. If the values of this organization were different, I would not be as attached to this organization.
4. My personal values are generally compatible with the values of the organization.

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The Factors Affecting Life in Moderation

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Abstract

This study investigates the elements that drive living a life in moderation or a life within a balance and not in extremes. These drivers include the benefits of living such a life (i.e., saving money, having a better quality of life, environmental preservation), role models (i.e., parents, the adoption of the sufficiency economy of King Bhumibol, and the company and the government), learning about the sufficiency economy in school, Buddhism, and advertising exposure through the media. The data were collected from interviews with 359 moderate adults that were at least 18 years of age and that had come to the randomly-selected shopping centers in Bangkok. The results from the multiple regression analysis indicated that saving money and learning about the sufficiency economy in school and from one's parents were the positive drivers of living a life in moderation. The sole negative driver of living a life in moderation was the exposure to advertising through the media. Older people were seen to be more moderate than younger people and the never-married were more moderate than those that were married.

Keywords: middle path, moderation, role model, sufficiency economy, Thailand

1. Introduction

Moderation can bring a feeling of calm to all areas of our lives, including our finances, while the opposite of moderation is living in extremes. For example, we may save all of our money and never spend any on anything extravagant or unnecessary, but on the other extreme, we might fritter away all our money on expensive clothing and other items and activities and incur a large debt. Both extremes pull us away from a balance in our expenses. We need to be able to find moderation with our finances by saving money but at the same time we also need to spend reasonable amounts of our income on things that we enjoy and that will bring us happiness—thus creating a balance in our lives. This will allow us to never reach the point of having so much money and not having the time to use it wisely or on the other hand to reach the point where we are in huge debt and are forced to spend all our money paying it off.

Thus, as stated above, living a life of moderation allows us to find and enjoy a balance in our lives. Saving is one of the key factor that drives us to be moderate in consumption, but there are several other positive factors that affect moderation and that deserve to be investigated, which is a main focus of this study. In addition, we are also affected by the mass media, on our children for example, and on society in general, and this influence is great. For this reason it is of value to know how this influence comes into being. The media make billions of dollars with the advertising that they sell and to which we are continually bombarded. Often, we make our purchasing decisions after seeing thousands of advertisements from television, newspapers and magazines. The effects of the mass media, especially on teenagers, is that they buy what they see on TV, what their favorite celebrity advertises, and what is deemed to be valuable by society based on the current fashion that the media have exposed them to. That is to say, the media are likely to have a negative effect on moderate consumption. Taken together, in this study, life lived in moderation is hypothesized to be motivated by several positive factors and the negative factor of media exposure.

2. Literature Review

2.1 *Benefits of Life in Moderation*

2.1.1 Saving Benefit

“Moderation” is a key term when it comes to the beneficial deployment of wealth, and moderation in spending depends for the most part on a person's ability to tell the difference between his or her needs and wants. According to Phrabhavanaviriyakhun (n.d.), necessary wealth can be broken down into four requirements: clothing, food, shelter, and medicine. Buddhists define a “need” for example as having enough clothing to protect oneself from the heat and cold, enough food to stave off hunger, and sufficient shelter to protect us from the elements, in addition to medical care to treat us when we are sick. If one has a clear idea about what comprises a “need,” we can see consumption for what it really is—merely a means to an end. If we confuse “wants” with “needs,” however, as encouraged by modern marketing tactics, we will make the mistake of thinking about consumption as an end in itself.

Because people never seem to be able to have enough or to know what to stop amassing goods, “needs” often are replaced by “wants.” When people desire something, particularly in an obsessive way, ethical considerations tend to “take a back seat.” The Buddha would see moderation as an antidote to excessive consumption and would say that moderation in fact contributes to one’s economic well-being. Most people are interested in how much money they are making, but more important is how much money you have left at the end of the month. In the past, people used to say “Don't just eat because you feel like it; eat when you are hungry . . .” because we can feel like eating twenty four hours a day! If there were nothing more to moderation than appetite for humans, then this would put us on the mere level of the animals. It is not one’s income that counts so much but how much is left after our expenses are met. The secret of having something left is to spend our money only on what we need and not unnecessarily on what we want. In short, the benefit of saving tends is positively related to moderation in life.

2.1.2 Benefit of Having a Better Quality of Life

According to Zsolnai (2011), the wisdom of moderation is at the heart of Buddhist economics. In Western economics unlimited desire is controlled by the scarcity of what we want, but in Buddhist economics this desire is controlled by an appreciation of moderation and the desire to achieve well-being in our lives. According to Buddhist thought, for example, whenever we use things we can take the time to reflect on their true purpose rather than using them without thinking. This would allow us to avoid overconsumption and understand what Buddhists call “the middle way.”

The idea of non-consumption in fact can contribute to a person’s well-being. For example, Buddhist monks eat only one meal a day and strive for a kind of well-being that is dependent on little that is external to our psyche in this case. In fact Buddhist economics recognizes that through non-consumption certain demands can be satisfied. In other words, the path to true contentment from this point of view involves reducing so-called artificial desires for sense-pleasure while at the same time encouraging and supporting the desire for a good quality of life. Therefore, it can be hypothesized that the benefit of bettering one’s quality of life is positively related to moderation in conducting our lives.

2.1.3 Benefit of Environmental Preservation

According to Essen (2013), the ethics of moderation are of critical importance in terms of combating excessive consumption and materialism, which have increased with the global spread of capitalism. Beyond the level of the individual’s well-being, the ability of moderation to stem the harmful effects of over-consumption can be seen to have perhaps even greater significance in terms of environmental sustainability as well as for social justice, although perhaps in a more indirect way. The degree of the degradation of the “life conditions of the planet” is dependent to a great extent on our social lifestyles. The ethics of moderation, through the power of the consumer, as individuals and collectively, have a great potential to positively affect human life. It follows then that the benefit of environmental preservation can be hypothesized as positively related to moderation in life.

2.2 *Role Models of Moderation*

2.2.1 Parents

It is commonly understood that parents are the role models of their children. The Buddha gave great importance to the parent-child relationship, where parents are compared to the Brahma God and are said to be the ones that show and introduce the world to our children. Indeed, our first frames of reference are given by our parents. For example, if our parents are fascinated by material things, beautiful clothes, expensive cars and so on, then they

promote a certain value system without intentionally doing so. In fact, the values of parents play an important role in conditioning the mindset of the child. Also influential is how parents live their lives, how they spend their time, how they divide their time between work and non-work activities and enjoyment, and how much time they spend with their family. It can be seen that parents have huge effects both in terms of what they consciously teach and in terms of their behavior and how that is perceived by others, especially their children. Thus, it can be hypothesized that parents exert a positive influence on their children in terms of moderation in life.

2.2.2 King Bhumibol's Sufficiency Economy

Thailand's revered King Bhumibol introduced an economic philosophy, known as sufficiency economics, to his subjects in 1997, when Thailand faced a severe economic crisis that led to many people committing suicide. This concept became a guiding principle of Thailand's national development policy in 1999. His Majesty's philosophy of sufficiency economy emphasizes that producers or consumers should attempt to produce or consume within the limitations of their existing income and resources. The sufficiency economy does not mean that one must constantly be frugal; for example, a person can indulge herself in luxury once in a while, so long as it is within her capacity to do so. However the majority of Thailand's population often spend beyond their means. His Majesty the King included the following in his birthday speech on 4 December, 1998:

I may add that full sufficiency is impossible. If a family or even a village wants to employ a full sufficiency economy, it would be like returning to the Stone Age... This sufficiency means to have enough to live on. Sufficiency means to lead a reasonably comfortable life, without excess, or overindulgence in luxury, but enough. Some things may seem to be extravagant, but if it brings happiness, it is permissible as long as it is within the means of the individual...

The sufficiency economy can be applied to all levels, branches, and sectors of the economy, and is not necessarily limited to the agricultural or rural sectors, or even the financial, the real estate, or the international trade and investment sectors. The point is to use similar principles that emphasize moderation and reasonableness in our actions, and creating immunity for ourselves and society. Therefore, it can be hypothesized that the adoption of King Bhumibol's sufficiency economy philosophy in life is positively related to Thais living their lives in moderation.

2.2.3 Company

As strange as it may sound, the company Bathroom Design can be taken as a good example of adopting King Bhumibol's sufficiency economy in terms of being moderate in doing business. The firm provides custom-made imported shower enclosures and Jacuzzis for new and old homes. The company soon understood that rather than buying each item separately they wanted the entire set, and this encouraged the company to create bathtubs. The company had experience as an importer of bathtubs, and they began to focus on innovation and introduced high-quality bathtubs and sanitary good in many styles and using many technologies. This included the use of different colors and types, for example, spa shower enclosures and environmentally-friendly toilets. Their creativity had garnered them several design award both locally and from abroad. One interesting point however is that Bathroom Design has adhered to the strategy of moderate growth while engaged in this creative activity and have never attempted to adhere to overly-ambitions growth. Neither have then attempted to overleverage money borrowed in order to increase unsustainable growth. Further, they have never neglected their long-term partnerships for short-term profits. In fact, they have remained only within their area of expertise, that is, bathroom fixtures, and have not expanded their business to include items used in other part of homes.

According to their perspective, moderation and grow and not mutually exclusive, nor is moderation at odds with good business opportunities. In fact, moderation means being committed to growing one's business with the careful use of resources so that the business can flourish. In order to evaluate sustainability or moderation, it is necessary to look at the careful use of the resources that are available and to also look at profitability and the relationship of debt to equity and time-interest expenses. This does not mean that growth has to be slow. Indeed, the growth of Bathroom Design has been quite extraordinary and they have ended up producing at least seven lines of bathtubs for almost 30 countries in the world—all within a decade of operations. However, this growth can be considered "moderate" because it was not achieved through ill thought out acquisitions or without the consideration of its core competency—the management of Bathroom Design has made a deliberate attempt to remain within its area of expertise. It can be seen then that moderation, although it may seem on the surface to be

a focus on self, can also be of benefit to the community and environment.

Bathroom Design for example has been able to save a considerable amount of money in the cost of production through the use of “green” technologies, for example recycling the water during the quality control stage. Additionally, the acrylic materials for example from the creation of sanitary goods are put to good use by the company in a variety of ways, for example as cabinets and shoe racks and even buttons that the staff members can wear at trade shows. This focus on “self” in the end results in being of benefit to more than the company. Thus, it can be hypothesized that a company’s behavior in being moderate is positively correlated with people living their lives in moderation.

2.2.4 Government

According to the Government Public Relations Department (2015), Prime Minister Prayut Chanocha has stated that his administration has applied the sufficiency economy philosophy of His Majesty the King as a guideline for national administration. In a televised national address on 27 March 2015 for the program “Return Happiness to the People,” Prime Minister Prayut explained that, according to the sufficiency economy, people should use their money wisely and reasonably: “If you have less, spend less, and if you have more, you may spend more.” For him this philosophy is a guide for life; that is, people should be empowered first before they decide to invest more money in something they want. This means that they should have enough money to eat with first and then they can purchase items that they do not consider to be essentials. The Prime Minister stated that the government gives great importance to empowering communities so that they will be able to deal effectively with their own problems. Community leaders for example, should be responsible and exhibit ethical behavior, and they should encourage self-reliance on the part of the local people. He further stated that all provinces in Thailand should help one another and in addition to their own communities. He pointed out that the heart of such community empowerment is the adoption of the sufficiency economy, which will allow communities to strengthen their abilities so that they can obtain the most from their potentials. The basic principle of this philosophy is that each village or sub-district should exist according to a reasonable amount of “sufficiency.” Like the philosophy for the individual stated above, if villagers grow or produce a surplus, then they can sell it, and rather than having to sell it at a great distance from their homes, they can sell it at sites nearby without having to pay high transport costs. Along this line, the Thai government is pushing for the implementation of pilot projects that can assist in the development of villages nationwide and based on the sufficiency economy philosophy. In this regard, it can be stated that there are three interlocking components of the sufficiency economy: reasonableness, moderation, and self-immunity, and therefore it can be hypothesized that the government’s application of the sufficiency economy in the administration of Thailand is positively related to the Thai people’s moderation in life.

2.3 Sufficiency Economy Philosophy Taught in Schools in Thailand

In 2015, the Office of Basic Education Commission (OBEC) launched a development center whose purpose is to drive the sufficiency economic philosophy, with the plan that all educational institutes will teach sufficiency philosophy lessons in three years. The National News Bureau of Thailand (NNT) reported that Minister of Education Admiral Narong Pipatanasai revealed in a news conference that the introduction of the sufficiency economy to educational institutions will continue to drive His Majesty the King’s philosophy, and this will allow the students to assimilate the ideas embedded therein. In fact, the OBEC has reported that the sufficiency economy philosophy has already been introduced to educational institutions through integrated management, curriculum development, and class activities since 2006. According to an OBEC report, some educational institutions have received certification from the Ministry of Education as model institutes in terms of teaching the sufficiency economy. The institutions that receive this certificate will be called “sufficiency institutes.” The Minister of Education stated that the establishment of a sufficiency economy philosophy development center will be an important strategy for creating concrete outcomes in the teaching of sufficiency economy development, according to the NNT. OBEC Secretary General Kamol Rodklai further stated that the sufficiency economic philosophy has been incorporated in the 2008 Basic Education Core Curriculum, where all schools have been requested to hold classes and activities that will teach students a sufficiency economic model. He stated that there are 14,602 schools nationwide in Thailand certified as institutions for teaching this model, while there are 39 sufficiency economy philosophy learning centers nationwide. The OBEC has established a plan to qualify all schools in Thailand to be certified as sufficiency institutes, and to establish the sufficiency philosophy learning centers in primary and secondary educational levels in all provinces of Thailand by 2017, according to the NNT. Thus, it can be hypothesized that learning the sufficiency economy philosophy in schools is positively related to moderation in life.

2.4 Belief in the Middle Path in Buddhism

Buddhism is called the Middle Way because the Buddha realized that extremes do not lead to the awakening of the individual. However, living life between extremes, with balance and moderation, does lead to less stress and awakening. Siddhartha Gautama, the man that would be known worldwide as the Buddha, at one time practiced severe neglect of self as a way of life. That is, he wore little or no clothing, and ate only enough food to maintain a small amount of his life energy. He also engaged in extreme behavior in other ways, for example, sitting in uncomfortable positions, sleeping in the open elements and during the day remaining under the heat of the sun or the cold rain. In fact it can be asserted that he likely would have died if he had not changed his attitude toward moderation. It is said that his hair fell out in clumps, his skin grew taut with sores and cuts, and his ribs showed. In other words, he looked like a corpse. According to one famous story, that a young lady named Sujata saw him, thinking how much he must be suffering, she offered him a meal of rice pudding and Siddhartha accepted the meal. At once his vows concerning the ascetic life were broken. It should be remembered that Gautama was from a wealthy family, and he realized that wealth, or more importantly, the overindulgence that wealth may bring, does not guarantee happiness, and thus this was added to his attitude toward the merits of moderation. Siddhartha realized that freedom and happiness stem from a mental stance between extremes. From this, we can see that Buddhism is not a religion nor philosophy of extremes—it is a path of moderation, and it works. The Middle Way attitude toward life has been applied to all aspects of Buddhism and life, and it can be hypothesized then that belief in the Middle Path of Buddhism is positively related to living a life in moderation.

2.5 Advertising Exposure through the Media

Throughout history, advertising has been criticized for causing many social ills, including the reinforcement of sexual stereotypes and creating discontent so that more goods can be sold.

There are at least two reasons why advertising has been blamed for promoting overconsumption.

The first may seem to be an obvious fact, but it has been asserted that advertising creates desires in the minds of people. Although obvious it is important because people in the marketing industry sometimes present the argument that the desires come first and then advertising steps in, responding to those desires.

However, as explained in *The Advertising Age Encyclopedia of Advertising*, businesses over a hundred years ago began to see that advertising can create desires in the minds of people and that this could lead to a new type of economy: “People bought articles they did not know they wanted until advertising told them why they could not live without it.” In 1958, John Kenneth Galbraith wrote his now-famous book *The Affluent Society* in which he argued that the central function of advertising is “to create desires—to bring into being wants that previously did not exist.” For example, in 2008, the global vice-president for Axe deodorant informed *The Times* newspaper that in the UK people did not use deodorant before World War II, and in fact according to him aggressive advertising was necessary to make people understand that body odor was socially unacceptable. He asserted that “[t]he sense of paranoia created the market.” The company's current global vice-president also recently corroborated the earlier statement, saying that advertising created the market for deodorant. Additionally, a Unilever executive recently explained that one expansion strategy was to make Asians feel self-conscious about their body odor. According to him however the “Asia is a market we have never really cracked. They don't think they smell ...” The point to be drawn here is not that people don't smell; it is that advertising seeks to create a market where one did not exist before.

It can be seen that advertising also creates new desires by promoting a sense of unhappiness with our current situation. Example of this can be found in the late 1950s. During World War II in the United States, for example, industry expanded in an effort to supply the army, and when the war was over the factories were left with a tremendously-increased capacity for manufacturing. At first the consumers bought new appliances and thus absorbed the extra production. However in the late 1950s, it became a worry on the part of industry that consumer demand would decrease and it was felt that this could lead to another economic depression. This situation was characterized as the “crisis of distribution.” One solution was to make people think that extreme consumption was an acceptable way of life, and in 1955, Victor Lebow, a retail analyst, wrote the following in the *Journal of Retailing*:

‘Cars, such as the GM Cadillac, developed stylistic quirks like tail fins, tempting consumers to replace their vehicles just to keep up with changing fashions.’

‘Our enormously productive economy demands that we make consumption

our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfactions, our ego satisfactions, in consumption ... We need things consumed, burned up, worn out, replaced, and discarded at an ever increasing pace.'

This is good description of the consumer economy, which has existed since the 1950s. One of the strategies for increasing consumption has been termed "psychological obsolescence." This involves making things appear to be old after only a few years. For example with reference to the automobile industry, some American cars developed stylistic idiosyncrasies such as tail fins, and it is believed that these "out of the box" creations were for the purpose of encouraging people to keep up with the changing fashion and to make new purchases. The role of advertising in this sense then was to make people think that new products were superior to old ones. This is not the only strategy that has been discussed in terms of getting people to buy new things—another was drive the demands of consumers through social pressure. This has been referred to "keeping up with the Joneses" theory, which everyone today is familiar with. However, this concept is implies a good deal more than merely trying to purchase newer and better things than one's neighbor. It can be applied to the entire society because it can be seen that everyone today is purchasing more than in the past. People are following others, not merely to get or stay ahead but to establish one's position in society—the passion of what is considered to be a quality item renders the possessor a higher status in society. For example, if the people in one's office begin driving new cars then the one you have will not look so good. This is a mundane example that can be applied to any material possession. Again, pressure is placed on the individual to retain his or her status though his or her purchases and material possessions.

Another way that modern advertising creates the social pressure to consume is by showing images of affluent people enjoying luxury goods, so-called "aspirational" images. The average person sees a photo of someone he or she feels is rich and this encourages the individual to "aspire" to the same level of consumption and possession. It is interesting however that many of these images are not even related to the product being sold. For example, an image of a beautiful woman in a car can be used to promote the sales of cars. It is often a fact that such aspirational advertising displays a level of wealth beyond what the average person can afford, creating a feel of disquietude on the part of the individual and the reason for their appeal—consumers feel unhappy with what they currently have and this results in never-ending striving for more expensive goods. Therefore, it can be hypothesized that advertising exposure through the media is negatively related to moderation in one's life

3. Methodology

3.1 Sampling

The questionnaire used in this study was first tested with 18 MBA students for a preliminary understanding of the content. This was followed by a pretest, where 18 eligible adult respondents were interviewed that were moderate and at least 18 years of age. The questionnaire was revised based on the feedback from the interviewees for its suitability and clarity. Then, the main study was conducted by interviewing 359 eligible shoppers at 36 randomly-selected shopping centers in Bangkok. The rate of moderation turned out to be 86 percent and the response rate was 92 percent.

3.2 Data Analysis

The benefits of living a life in moderation (i.e., saving, a better quality of life, environmental preservation), the role models in relation to being moderate (i.e., parents, King Bhumibol, company, government), as well as other variables such as learning about the sufficiency economy from school and Buddhism, were assumed to be positively related to moderation in life. Additionally, advertising exposure to the media was hypothesized to be negatively related to moderation in life. In order to investigate whether this hypothesis would hold true or not, a regression analysis was conducted. Specifically, the earlier-mentioned independent variables, as well as the demographic characteristics, including gender, age, marital status, education, and household income, which were also used as the independent variables because they were used as the controllable variables, were regressed on moderation in life, which was used as the dependent variable. It should be noted that education was divided into low education, consisting of people with lower than a bachelor degree, and high education, consisting of those with at least a bachelor degree. Household income was also divided into two groups. The low household income group was comprised of persons that earned less than 60,000 Baht/month, whereas the high household income group was those that earned at least 60,000 Baht/month. The results of the multiple regression analysis are shown in Table 1.

Table 1. Results for the multiple regression analysis of moderation and benefits, role models, and several other factors affecting moderation in the whole population

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	0.98	0.52		1.887	.060*		
Save	0.534	0.046	0.564	11.618	.000**	0.662	1.511
Quality of life	0.073	0.05	0.076	1.464	0.144	0.573	1.744
Environmental preservation	0.056	0.045	0.062	1.231	0.219	0.607	1.646
Parents	0.074	0.041	0.082	1.83	.068*	0.777	1.286
Adoption of sufficiency economy	0.064	0.043	0.077	1.487	0.138	0.588	1.701
Company	0.015	0.036	0.02	0.425	0.671	0.719	1.391
Government	-0.046	0.039	-0.057	-1.2	0.231	0.694	1.441
School	0.088	0.034	0.129	2.554	.011**	0.613	1.63
Buddhism	-0.058	0.04	-0.068	-1.458	0.146	0.713	1.403
Advertising	-0.065	0.033	-0.082	-1.977	.049**	0.904	1.106
Gender	-0.033	0.099	-0.014	-0.33	0.742	0.928	1.078
Age	0.011	0.006	0.121	1.922	.055*	0.396	2.525
Marital Status	0.266	0.142	0.106	1.875	.062*	0.486	2.058
Educgr	-0.162	0.121	-0.058	-1.344	0.18	0.826	1.21
Incgr	-0.15	0.103	-0.062	-1.46	0.145	0.865	1.156

$R^2 = .497$ $\bar{R}^2 = .474$ $F_{15,323} = 21.266$ $P = .000$ ** = Significant at $\alpha \leq .05$ * = Significant at $\alpha \leq .1$

4. Results and Discussion

According to the standardized beta coefficients, as shown in Table 1, the positive determinants of the moderation in life of the whole sample were saving, parents, and learning from school. The sole negative influence on moderation in life was advertising exposure through the media. Apart from that, people of an older age tended to be more moderate than younger people. Similarly, the never-married were more moderate than the married individuals. The strongest influencer of moderation in life was saving, followed by learning from school and parents. Parents and advertising exposure through the media seemed to be equally important influencers of moderation, but they were working in the opposite direction. It is noteworthy that the benefit of saving came up as the strongest driver of moderation in life but other benefits of moderation—a better quality of life and environmental preservation—did not seem to attract people's attention at all. These two benefits tended to deserve the attention for promotion of moderation by the policy maker. Additionally, formal education in learning about the sufficiency economy from school tended to work better in promoting moderation in life than informal education by taking parents as role models. This tends to lend itself to the idea that educators should place emphasis not only on the education in the classes but should also extend the learning of students in extra-curriculum activities as well. The teachers should find every possible way in their attempts to instill the spirit of moderation in the students' lives.

Thai people tend to expose themselves to advertising through media to a great extent, and this is the downside of being moderate. The negative influence of advertising on moderation can be avoided through an attempt to ignore the huge amount of advertising that bombards us daily. We may have to be very selective in viewing the advertising and limit ourselves to that which is informative and not merely persuasive. In addition to that, we should not jump into buying the products as advertised right away; it might be better if we can wait for a while so that we purchase only what we actually need and not what we want in the moment. It should be noted that companies cannot perform as good role models for being moderate since they are often perceived as mainly

profit organizations and not as organizations that create a balance among profit, people, and the planet. The triple bottom line of profit, people, and planet, which is certainly a noble objective for any company, seems to be a long way off in today's world.

5. Conclusion

This study has made an attempt to demonstrate the positive aspects of moderation in contemporary society. In order to promote a much wider adoption of moderation in life, the benefit of saving from being moderate, as well as the overlooked benefits for a better quality of life and the benefit of environmental preservation, should be emphasized. Parents can be a good role model for youngsters in terms of being moderate. However, formal education in learning about the sufficiency economy from school, beginning from the early years in life, tended to work even better in promoting moderation in life than using parents as role models.

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Customer Satisfaction Index Model for Indian Banking Industry: A Qualitative Study

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Abstract

The conventional financial measures have always dominated the business performance evaluation in India. There is a need to augment the current approaches to evaluate the financial health of individual firms and industries. Customer Satisfaction Index (CSI) is one of the best solutions which is a customer-based satisfaction benchmarking system and serves as a standard metric, widely implemented in the United States and Europe. However, there is no such index in India and there is a need for a non-financial, customer-based satisfaction metric. This study is a pilot attempt to develop a Customer Satisfaction Index (CSI) model, specifically for the Indian banking industry. To achieve this, the focus group technique was employed to find the key determinants of customer satisfaction in the banking industry. The comprehensive thematic analysis revealed a total of six themes and nine sub-themes which have been proposed as the antecedents of customer satisfaction in the CSI model for the Indian banking industry. The future research intends to develop instrumentation based on the focus group results and validate the hypothesized CSI model proposed in this study.

Keywords: banking, brand image, customer satisfaction index, quality, value

1. Introduction

There is a rising criticism of the current performance evaluation system of Indian businesses based on financial measures which are focused on the past and lack a futuristic outlook (Anand, Sahay, & Saha, 2005). With the changing economy and customer expectations, the conventional measures of output and quantity need to be replaced with quality and customer metrics (Fornell, Johnson, Anderson, Cha, & Bryant, 1996; Anderson & Fornell, 2000). Hence, there is a growing necessity for non-financial, qualitative and forward looking measures for performance evaluation of businesses (Joshi, 2001; Farris, Bendle, Pfeifer, & Reibstein, 2010). Of the various customer metrics such as service quality, customer satisfaction, loyalty and intentions to purchase, customer satisfaction is the most widely used metric by firms since it is generic and universally gaugeable (Gupta & Zeithaml, 2006). Also, there is considerable evidence to support that customer satisfaction measures and indices are leading indicators of customer purchase behaviour, retention, revenue growth and financial performance (Ittner & Larcker, 1998; Chenhall & Langfield-Smith, 2007). Customer Satisfaction Index (CSI) represents a uniform and a comparable measurement system for evaluating and enhancing customer satisfaction across firms and industries (Fornell et al., 1996). It provides an established system for systematic benchmarking over time across firms and a gauge of how well companies satisfy their customers (Fornell, 1992). The national CSIs such as American Customer Satisfaction Index (ACSI) and European Customer Satisfaction Index (ECSI) are widely accepted indices used to regularly monitor the health of the economy, industries and individual firms (Neely, 1999; EPSI Report, 2007). There is no such standard metric to measure customer satisfaction in India. There is a need for a similar index which provided an impetus to this study, a pilot attempt to develop a Customer Satisfaction Index (CSI) model, specifically for the Indian banking industry.

The banking sector occupies an influential place in India's economy. Since the liberalization of banking policies by the Reserve Bank of India (RBI) in 1990s, there has been an expansion of the banking sector with tremendous growth in the number of private sector banks (Mistry, 2013; Mandal & Bhattacharya, 2014). This led to a more competitive landscape along with the mounting consumer awareness and expectations (Kanojia & Yadav, 2012) which forced the bankers to shift their focus towards more service oriented and customer centric approach

(Mukerjee, 2013). Since banking services is a customer oriented industry with minimal product differentiation, customer is the focus and customer service is the differentiating factor (Mangnale & Chavan, 2012). This brought the concept of customer satisfaction to the centre stage. It is a critical issue in banking industry due to its long term impact in terms of gaining customer loyalty and profitability (Anderson, Fornell, & Lehmann, 1994; Fornell et al., 1996). Thus, a CSI to evaluate the performance of banks will assist them in identifying if their main value proposition is improving or degrading over time.

2. Literature Review

Recognizing the importance of customer satisfaction, marketing researchers conducted several studies over the years (Spreng & Mackoy, 1996). Many individual companies and marketers tracked customer satisfaction on a one-time or continual basis. However, customer satisfaction research took a great leap with the introduction of customer satisfaction indices at national level. In 1989, in an effort to promote quality and competitiveness of its market and industries, Sweden became the first country to establish a national economic indicator reflecting customer satisfaction called Swedish Customer Satisfaction Barometer (SCSB) (Fornell, 1992). The idea was to develop an index to gauge how effectively companies and industries satisfy their customers. The CSI intended to provide customer's evaluation of the quality of their products and services at company level and also facilitate a cross-company and industry level comparisons (O'Loughlin & Coenders, 2004).

As the economy changes, theories and measures must also change. The present financial indices or measures such as market share, profitability, productivity, etc. cannot be used effectively as standalone metrics without taking into account the quality of output and customer satisfaction. CSI acts as a complement to these conventional indices (Fornell et al., 1996). Inspired by the SCSB, national CSIs were introduced for other countries and regions. The American Customer Satisfaction Index (ACSI) was established in 1994 (Fornell et al., 1996) followed by Norwegian Customer Satisfaction Barometer (NCSB) introduced in 1996 (Andreassen & Lindestad, 1998) and European Customer Satisfaction Index (ECSI) in 1999 for 11 countries in the European Union (Eklof & Westlund, 2002). Indices were developed and tested for countries like Switzerland (Bruhn & Grund, 2000), Denmark (Martensen, Gronholdt, & Kristensen, 2000), Austria (Hackl, Scharitzer, & Zuba, 2000), Malaysia (Abdullah, Husain, & El-Nassir, 2001) and Turkey (Türkyilmaz & Özkan, 2007). These national CSI models consisted of antecedents and consequences of customer satisfaction like perceived quality, customer expectations, perceived value, corporate image, customer complaints, customer loyalty and commitment. These models were validated using large representative sample of customers of top firms from various industries, due to which the measurement scales used in these studies consisted of standard set of generic questions for each construct (Fornell et al., 1996). These national CSIs were used by numerous researchers in customer satisfaction studies, of which ACSI and ECSI were the widely used CSI models in marketing literature.

Most studies adapted these CSI models for validation in different contexts, industries and countries. Kristensen, Martensen and Gronholdt (2000) tested the application of ECSI methodology for a private mail and courier service i.e. Post Denmark and concluded that ECSI seemed sufficiently flexible for different industries. Yu, Wu, Chiao and Tai (2005) examined customer satisfaction with automobiles in Taiwan using a modified ACSI model excluding perceived value and found a good model fit, except for the effect of customer expectations on satisfaction. In a study to measure customer satisfaction in a banking organization of Taiwan, Hsu, Chen and Hsueh (2006) used a combination of variables from ACSI and ECSI, since both had their strengths and weaknesses. They incorporated corporate image by replacing customer expectations and found all relationships to be significant except customer complaints to loyalty. Terblanche (2006) validated the ACSI model in the context of the South African motor vehicle industry, except for the relationships of customer expectations similar to Yu et al. (2005) and Wu and Ding (2007). Slongo and Vieira (2007) aimed to understand the modifications and improvements proposed in the new NCSB model by Johnson, Gustafsson, Andreassen, Lervik and Cha (2001) in the supermarket context. The findings revealed satisfactory results except for the significant effect of complaints handling on customer satisfaction unlike Johnson et al. (2001). Thus, these researchers used the national CSI models directly or with minor modifications to suit their research context and to a certain extent validated the models except for a few relationships w.r.t. customer expectations and complaints.

Taking a step further from this direct usage, there were studies that employed the CSI models by deconstructing or expanding its constructs to help improve the model explanatory power and fitness. Most of them focused on replacing the overall quality scale with industry or research specific multi-dimensional scale. In a unique study by Ryzin, Muzzio, Immerwahr, Gulick and Martinez (2004), the ACSI model was used to examine the drivers and behavioural consequences of citizens' satisfaction with government services in New York City. The measurement scales were formulated based on government services to suit the research objective. For quality, a range of activities such as fire protection, bus service, schools, park and recreation facilities were included. Wu

and Ding (2007) conducted a study to validate the ACSI model in the context of consumer electronic e-tailers using the ACSI model with the same constructs, however modified the measurement scale for perceived quality with E-S-QUAL instrument (Parasuraman, Zeithaml, & Malhotra, 2005). In a similar study, Hsu (2008) proposed a new index for online customer satisfaction (e-CSI) using the ACSI model modified by replacing perceived quality with e-service quality (E-SQ). A focus group was conducted to identify the factors salient to the customer in evaluating e-SQ and a 13 item quality scale was developed and tested which confirmed higher variance explained for customer satisfaction and customer loyalty. Ferreira, Cabral and Saraiva (2010) evaluated customer satisfaction in the Portuguese injection mould industry for which an industry-specific ECSI model was designed. A qualitative study was undertaken to identify the important aspects of quality in the injection industry and a detailed quality scale was developed and tested which corroborated a better explanation of customer satisfaction and loyalty. A similar study was conducted by Hsu, Tsai and Wang (2013) to develop a decomposed customer satisfaction index for the boutique motel industry using a modified ACSI model where perceived quality was replaced by decomposed service quality to improve the explanatory power compared to pure models. The delphi technique was used to find the factors contributing to service quality and an industry specific scale was constructed. There are other comparable studies which adapted the original or modified version of the national CSI models (Bayraktar, Tatoglu, Turkyilmaz, Delen, & Zaim, 2012; Chavez-Diaz, Rojas, & Orozco, 2015). However, there is a dearth of research in India related to CSI studies with a few of them which just adapted and validated the existing CSI models (Mangnale & Chavan, 2012; Ali & Dubey, 2014).

A comprehensive review helped to unearth major gaps and disparities in existing research. First, there is no research undertaken to develop a customer satisfaction index in India, specifically for the banking industry. Second, there is a need for a CSI model with variables and measurement scales indigenous to the Indian conditions. Third, there are hardly any studies explicating a detailed development of a CSI from scratch using qualitative analysis. Most studies involve direct application or adaption of existing CSIs. These research gaps strengthened the need for the present study.

3. Research Objectives

The objectives of the study were:

- 1) To explore and identify the key determinants of customer satisfaction in Indian banking industry using the focus group technique;
- 2) To propose a hypothesized customer satisfaction index model using qualitative results and literature review.

4. Research Methodology

The study was carried out in Chennai city, Tamil Nadu in India. An inductive approach with an exploratory, qualitative research design was used since it seeks thorough knowledge and insights into the problem and helps to develop ideas or hypotheses for quantitative research (Wyse, 2013). The focus group method was adopted for data collection, which is one of the effective techniques providing in-depth and subjective understanding of the customers (Calder, 1977). Focus group is a form of group discussion that capitalises on communication between the participants which include exchanging anecdotes and commenting on each others' experiences and opinions (Kitzinger, 1995). After data collection, focus group output was subjected to thematic analysis to find key themes representing the factors driving customer satisfaction. Based on thematic analysis results and literature support, a new hypothesized CSI model for Indian banking industry was proposed.

4.1 Focus Group Procedure

The focus group was conducted in Chennai, the sampling site of this study. The traditionally recommended size of a focus group is five to eight participants, since it is more effective, co-ordinated and helps gain in-depth information from each participant, unlike larger groups which are difficult to control and limit each participant's opportunity to share insights (Greenbaum, 1998; Krueger & Casey, 2014). Hence, the researcher conducted the focus group discussion using six participants who were customers of various banks and regular users of banking services. This can be regarded as an ideal and adequate sample size given that they effectively answer the research questions and accomplish the study objectives. The participants were recruited using researcher's personal contacts through snowball sampling technique, since such sample facilitates an enriched and candid discussion due to more openness and connection between the researcher and the participants and among the participants themselves (Noy, 2008). The selection criterion for participants was that they need to be bank customers for a long period so that they had enough experience and knowledge regarding the subject. The researcher ensured that the participants were from diverse demographic background and customers of different banks to attain a more representative sample. The profile of the participants is summarized in Table 1.

Table 1. Profile of Focus Group Participants

	Variables	No. of Participants
Gender	Male	3
	Female	3
Age	<35 years	2
	35-50 years	3
	>50 years	1
Education	Graduate	3
	Post-graduate	2
	Doctorate or above	1
Bank Type	Public sector bank	2
	Private sector bank	2
	Foreign bank	1
	Co-operative bank	1
	Total	6

The researcher put forth four open-ended questions one by one for discussion among the participants. The questions were derived from Chen (2009) comprising of the reasons you were customer of your bank, advantages and disadvantages, points of improvement and differences between your bank and other banks. The focus group discussion lasted for about 90 minutes with all participants presenting their diverse views and experiences about banking services. The data collection included audio recordings, observation of non-verbal communication cues and note taking. At the conclusion of the focus group, the researcher provided a summary of major points of the discussion and gave the participants an opportunity to confirm or clarify the points.

4.2 Thematic Analysis

Thematic analysis is a method of qualitative data analysis unlike grounded theory, narrative analysis or discourse analysis which are systematic approaches to conduct qualitative research (Braun, Clarke & Terry, 2014). Independent of theory and epistemology, thematic analysis is an accessible and flexible method which exclusively deals with identifying and understanding themes in data, unlike other approaches whose goal is to develop a substantive theory or narrative (Cho & Lee, 2014). To accomplish the research objective of exploring and identifying the key determinants of customer satisfaction in banking industry, thematic analysis was found most appropriate. It is defined as a method for identifying, analysing and reporting patterns (themes) which minimally organises and describes the dataset in rich detail (Braun & Clarke, 2006). After the focus group discussion was completed, the researcher transcribed the audio recordings. The transcripts were analyzed using thematic analysis. Specifically, theoretical thematic analysis was used to analyze the focus group data, which is driven by the researcher's theoretical interest and knowledge in the area and thus was explicitly analyst driven (Braun & Clarke, 2006).

According to Braun and Clarke (2006), thematic analysis consists of six phases. The first phase involved familiarising with the data followed by the second phase which was generating initial codes. Coding is the process of creating codes, the most basic segments of raw data identified prior to interpretation (Boyatzis, 1998). A code is a label given to significant pieces of data that contribute to a theme (Saldaña, 2009). This study involved a careful examination of the transcribed content followed by manual classification and tagging of important and relevant verbatim texts with codes. Here are some examples of coding process from this study.

The participants highlighted the issue of service charges levied by the banks. One participant said,

"In my bank, there are no unnecessary charges. The service charges are also comparatively less than other banks."

This extract was coded as 'service charges' since the participant emphasized on this issue which is an important feature of banking services. Other participants added, saying that,

"My bank has very high cost services compared to even other private banks." which was also coded as 'service charges'.

The participants widely discussed about interest rates of various loans offered by banks. One of them said,

"Personal loan offered by my bank has very high EMI. It has additional interest rate than others."

Other participants expressed mixed views, saying that,

"My bank should lower interest rate for home loans. Atleast, reasonable interests can be given compared to other banks."

"Home loans with lower interest rate is the only positive difference in my bank when compared to other banks."

These extracts were coded as 'interest rates'. Similarly, all important and relevant extracts of data were analyzed and categorized into appropriate codes. A total of 294 data extracts were deemed significant and classified into 74 codes.

After the coding process, the third phase of the thematic analysis was forming themes (Braun & Clarke, 2006). In this phase, the generated codes were analyzed and combined into overarching themes. Themes are much broader and provide a big picture. A theme captures something important in relation to the research question and represents some level of patterned response within the dataset (Braun & Clarke, 2006). Based on examples mentioned previously in the coding process, the participants discussed much about the various service charges, taxes and interest rates imposed by the banks. The corresponding pieces of data were categorized as different codes such as service charges, interest rates, etc. Thus, a total of six codes created with 31 pieces of verbatim text had an underlying resemblance that they all focused on the monetary aspect. Across these six codes, the participants highlighted the issue of how much they need to pay to obtain the banking products and services which is nothing but value in terms of money (Zeithaml, 1988). Hence, these six codes were combined together to form a common theme termed as 'monetary value' as presented in Table 2.

Table 2. Creation of Monetary Value Theme

Codes	Frequency (No. of coded texts)	Theme
Service charges	11	Monetary Value
Charges for mobile alerts	1	
Credit card service charges	3	
Interest rates	12	
Minimum account balance	2	
Charges for deposit/withdrawal	2	
Total	31	

Similarly, the researcher examined all codes and grouped those with similar meanings and contexts into common themes with the guidance of a marketing expert and two bank executives to validate the same. The fourth phase dealt with reviewing themes (Braun & Clarke, 2006) which involved refinement of created themes. Themes were discarded or combined or broken down into separate themes based on the criteria of internal homogeneity and external heterogeneity (Patton, 1990). The refinement process also involved creating sub-themes within themes wherever necessary (Braun & Clarke, 2006). The final list of themes and sub-themes derived from a total of revised 71 codes and 283 pieces of verbatim coded text is presented in Table 3.

Table 3. List of Final Themes with Number of Codes and Coded Texts

Themes	Sub-themes	No. of Codes	Frequency (no. of coded texts)
Core Products and Services		15	57
Customer Service Quality	Tangibles	4	12
	Customer care	6	15
	Efficiency	5	29
	Quality of staff	9	19
Automated Service Quality	Security	2	3
	ATM quality	4	12
	E-banking quality	7	29
Monetary value		6	31
Non-monetary value	Time and effort value	6	56
	Relationship value	3	11
Brand image		4	9
Total		71	283

The detailed list of themes and codes is presented in the appendix. The fifth phase was defining the themes which involved identifying the essence of what each theme is about, defining and describing the scope and content of each theme shortly (Braun & Clarke, 2006). The final set of themes and sub-themes and their definitions are presented in the Table 4. The final phase was producing the report presenting the analysis findings with vivid examples or extracts.

Table 4. List of Final Themes, Sub-themes and their Definitions

Themes	Sub-themes	Definitions
Core Products and Services		The range of products and services, its varieties and features offered by the bank
Customer Service Quality		The quality of assistance and advice provided by the bank to customers during purchase or usage of products and services
	<i>Tangibles</i>	The tangible facets or man-made physical environment of the bank i.e. equipments, facilities, space and comforts
	<i>Customer Care</i>	The ability to solve customer problems and queries effectively
	<i>Efficiency</i>	The speed and timeliness of delivery of products and services
	<i>Quality of Staff</i>	The quality of staff in terms of their knowledge, qualification, conduct, responsiveness and willingness to serve the customers
	<i>Security</i>	The safety and privacy of the customer, his account and transaction information across all banking channels
Automated Service Quality		The quality of automated or technology based delivery of products and services
	<i>ATM Quality</i>	The quality and ease of using ATM systems, its services and features
	<i>E-Banking Quality</i>	The quality and ease of using e-banking technology and its services
Monetary Value		The customer perception of net benefits gained in exchange for the price paid for products and services
Non-monetary Value		The customer perception of net benefits gained in exchange for the non-monetary costs i.e. time, effort and psychological costs
	<i>Time and Effort Value</i>	The customer perception of the time and effort involved in the delivery and usage of products and services
	<i>Relationship Value</i>	The customer perception of the relationship and bonding benefits with the bank
Brand Image		The perceptions' customers have about the bank's brand image

5. Results and Discussion

A comprehensive theoretical thematic analysis produced an accurate portrayal of the focus group content. Overall, the analysis yielded six themes and nine sub-themes as briefed below with significant citations.

5.1 Theme 1: Core Products and Services

This theme represents the wide range of products and services offered by the bank and their distinctive features. The participants discussed the various banking products and services they have used, their benefits and shortcomings as shown by few excerpts.

"I chose this bank because of the locker facility. I can get good locker facilities with lower rates".

"My bank also offered me a lifetime free credit card and the credit limit was enhanced with increase in my salary credit. This was awesome."

"I may have a plan to avail home loan in future and to the best of my knowledge, mine is the best bank for home loans with lower interest rate than other banks."

The participants shared their experiences about purchasing and using various products, services and their key features such as home loans, educational loans, free credit cards, locker facility, etc. A total of 57 data extracts were coded as 'core products and services' indicating that it was widely discussed and the principal issue.

5.2 Theme 2: Customer Service Quality

This theme signifies the quality of overall assistance and advices provided by the bank to customers during and post purchase and usage of products and services. This is a broader theme with five distinct sub-themes

representing all important aspects of manner in which the products and services are delivered comprising the sum of tangibles, customer care, efficiency, staff and security. Together, these sub-themes indicate the overall quality of the customer service being delivered.

5.2.1 Sub-theme 2.1: Tangibles

The tangibles sub-theme relates to physical surroundings and facilities provided by the bank which include the ambience, space, equipments and comfort facilities. In the discussion, the participants mainly complained about the small premises and over-crowding which makes their bank visit and usage of services very exhausting and time-consuming as highlighted by some excerpts.

"The bank has small premises. It should be shifted to a large building as it's very busy and it's always crowded."

"My bank has fully air conditioned rooms and is very comfortable. Apart from this, the bank has very cozy outlook and upholstered furniture."

The participants expected their banks to be spacious with large premises and facilities to accommodate all visitors comfortably.

5.2.2 Sub-theme 2.2: Customer Care

This sub-theme refers to the ability of the bank to solve customer problems. It indicates the level of competence, availability and willingness to resolve customer issues and queries. As shown by few examples, the participants discussed their experiences about the way their complaints were handled by the bank.

"My bank offers good customer and technical support 24/7. Customer care is easily approachable. I can call anytime and mostly my problems are resolved."

"Due to rigid IVR process and unawareness, it takes too long and the customers are unable to connect to the customer care representatives. So the process should be simplified."

The main areas focused by the participants were customer and technical help, 24/7 support, customer care helpline, IVR complexity and access to customer care representatives.

5.2.3 Sub-theme 2.3: Efficiency

The efficiency sub-theme denotes the overall speed and timeliness of the delivery of products and services by the bank. In short, it is the time taken from the point of customer request for a product or service to the point of its delivery or completion. This involves the entire process efficacy, formalities, paperwork and other challenges to complete the task.

"For certain services, there is a long process of paper-work to be done, especially taking loans. There are various criteria and procedure involved. The signature verification also takes too much time."

"The branch change and updating personal information procedures could be made easier as these are simple services which they can provide on internet banking. But, they ask us to come personally to the bank with IDs."

The participants unanimously agreed that most banks have unnecessary formalities, conditions and red-tapism which can be reduced to improve efficiency.

5.2.4 Sub-theme 2.4: Quality of Staff

This sub-theme was one of the widely discussed issues by the participants. It relates to the quality of the staff in terms of their knowledge, qualification, behaviour, responsiveness and willingness to serve the customers.

"My point is the staffs of bank should give equal treatment to every customer and not to show any favouritism."

"The manager of the bank should be easily available for making complaints and for informing issues."

"Still an old age school of thought persists in some branches. The staffs have a stiff, non friendly approach in service."

The participants shared a lot of negative experiences and grievances indicating the dismal state of service by the bank personnel. The participants stressed the need for more helpful and courteous staff who will treat them with respect, understand their problems and offer them solutions.

5.2.5 Sub-theme 2.5: Security

This sub-theme deals with the security aspect of banking. It refers to the safety and privacy of the customer with regard to his bank account and transaction information in all banking channels including ATM and e-banking.

"The net banking facility is very secure. I am always assured that the money and transaction details are

protected. I have never come across any fraudulent stuff."

"Sometimes, I feel the ATMs are not at safe places. I feel scared to go at night and also there is no proper security."

These excerpts emphasized that security is essential at all places and channels of banking.

5.3 Theme 3: Automated Service Quality

This theme represents the overall quality of technology based on automated mode of delivery of products and services. With the advent of new technologies, multiple channels of banking have emerged aimed to improve its quality with greater flexibility and lesser efforts. The automated modes of banking which include the ATM and e-banking have been incorporated as the sub-themes under this theme.

5.3.1 Sub-theme 3.1: ATM Quality

ATM is one of the most commonly used modes for cash withdrawal and for other basic services today. Hence, ATM quality is an important sub-theme which specifically relates to the quality of ATM systems, its services and features. It also includes the ease of using the ATM facilities and their maintenance as shown by these excerpts.

"My bank has more withdrawal limit in compared to other banks. I can withdraw Rs.50,000 from ATM per day."

"In my bank I can change my ATM Card PIN and credit card PIN in the ATM itself without going to the bank branch."

The participants primarily discussed the limit on the number of free withdrawals and the maximum withdrawal amount permitted through ATM along with the other services being offered. Other issues highlighted were the need for better maintenance and management of ATMs with 24/7 service.

5.3.2 Sub-theme 3.2: E-banking Quality

This sub-theme indicates the overall quality and the ease of using e-banking technology. E-banking which includes both PC and mobile banking has become the new alternative channel of banking used frequently by the customers now-a-days, to the extent that there is no need for them to visit bank branches.

"My bank's e-banking website has a very good internet banking (GUI) compared to other banks. The navigation is very easy as it is user friendly."

"Almost all the services are available in internet banking. Since facilities of transferring funds, paying bills, and scheduling standing instructions are available in net banking, I need not visit the banks for these services."

The key areas focussed by the participants regarding e-banking were the website interface, ease of use, navigation, availability of all services and options and also website aesthetics.

5.4 Theme 4: Monetary Value

The monetary value is one of the most important themes which indicate the customer perception of net benefits gained in exchange for the price paid for banking products and services. Indian consumers are price sensitive (Mukherjee, Satija, Goyal, Mantrala & Zou, 2012) who expect greater returns, specifically for the monetary price they pay. In their discussion, the participants mentioned it as a vital reason to choose their banks.

"My bank charges high service tax for credit card transactions. For mobile alert also, they are deducting amount, which could be given as free service."

"Home loans with lower interest rate is the only positive difference in my bank when compared with other banks."

The discussion highlighted few critical areas such as service charges, loan interest rates, EMIs, charges for services like mobile alerts, credit cards, etc. and minimum account balance. The participants largely felt that the charges levied by their banks in these aspects were unnecessary and high which need to be reduced.

5.5 Theme 5: Non-monetary Value

Money is not the only sacrifice made by customers to avail products and services. There are significant non-monetary costs involved and hence the theme 'non-monetary value' came into existence. It signifies the customer perception of net benefits gained in exchange for the non-monetary costs which include time, effort and psychological costs. Based on this, the non-monetary value theme was divided into two sub-themes; time and effort value and relationship value.

5.5.1 Theme 5.1: Time and Effort Value (Accessibility)

This sub-theme denotes the customer perception of the time and effort involved in purchasing and using products

and services. It simply refers to the level of easy access to the banking services.

"Convenience and ease-of access are the primary reasons why I choose this bank. It is a nationalised bank which has branches in almost all parts of the country."

"As there is no ATM in my locality, I have to travel a lot or use other banks' ATMs which are chargeable."

Good accessibility with less time and effort was a widely emphasized issue with 56 extracts coded under this sub-theme. The important points discussed were the number of branches and ATMs, their proximity and the working hours of banks.

5.5.2 Theme 5.2: Relationship Value

This sub-theme represents the customer perception of the benefits of establishing relationship and bonding with the bank. It deals with the non-monetary, emotional gains of the customer from association with the bank.

"There is nothing special for privileged customers. Customer loyalty and reward programs are missing e.g. they do not even invite loyal customers for any special events."

"If I know the staff personally no need for me to go, just I can just call and clarify any doubt. I feel very comfortable."

Though they are secondary to the main services, the participants highlighted key issues such as the need for more loyalty and reward programs, recognizing and rewarding privileged customers. However they opined how knowing the bank staff personally leads to improving customer relationship and bonding.

5.6 Theme 6: Brand Image

The brand image theme signifies the customers' perception about the bank's brand image. It includes a set of attributes and associations embedded in the memories of the customers.

"It is a nationwide bank., unlike other private banks it is run by the government ."

"The drawback is that the bank is privately owned and has smaller clientele base. I am little worried about how stable it will be."

The participants were mainly concerned about ownership of the bank, whether it is government or private bank and also about issues like its nationwide spread, and its stability in the long run.

The details shared in the focus group discussion helped the researcher to derive some dominant themes and sub-themes. Overall, the processing and interpretation of emotions, facts and information offered a crucial contribution in terms of better understanding of Indian customers' perceptions about banking services and the factors which affect their satisfaction.

6. Proposed CSI model for Indian Banking Industry

To substantiate the focus group findings, the thematic analysis results were utilized to develop a proposed CSI model for Indian banking industry for further empirical validation. The themes and sub-themes identified were hypothesized as the antecedent variables of customer satisfaction in the CSI model. However, to establish the interconnections between the variables, popular theories and literature support were employed.

The first step was to decide the adaptation of the themes and sub-themes into an appropriate hierarchical latent variable structure. Based on evidence from various quality scales in banking studies (Jun & Cai, 2001; Sureshchandar, Rajendran & Anantharaman, 2002; Yang, Jun & Peterson, 2004; Karatepe, Yavas & Babakus, 2005), three themes; core products and services, customer service quality and automated service quality together reflected the overall banking quality and were treated as second-order latent variables that were condensed into one third-order latent variable termed as 'perceived quality'. The sub-themes under customer service quality and automated serviced quality were incorporated as first-order latent variables. The use of such hierarchically structured latent variables is very limited, but it is a valuable technique which allows for more theoretical parsimony and reduces model complexity (Quaddus & Woodside, 2015).

In this study, two distinct themes based on value were identified; in terms of the customer's monetary and non-monetary sacrifices. It is essential to test the effects of these two aspects differentially and hence the two themes, monetary value and non-monetary value were incorporated as two distinct latent variables. The non-monetary value was treated as second-order latent variable with sub-themes; time and effort value and relationship value as its first order latent variables. The final theme, brand image was considered as a simple latent variable in the proposed CSI model.

The next step was to establish the relationships between the latent variables and ultimate dependent variable i.e.

customer satisfaction. Perceived quality is the customer’s evaluation of a product or service post purchase and experiences. According to Hom (2000) and Oliver (2010), satisfaction is a function of the customer's perception of performance which is analogous to perceived quality (Cronin & Taylor, 1994; Fornell et al., 1996). It was established in literature that quality perceived by bank customers is a fundamental antecedent of customer satisfaction which implies that customers who perceive superior quality of the bank's products and services are likely to be more satisfied and eventually become loyal patrons (Fornell et al., 1996; Cronin, Brady & Hult, 2000; Johnson et al., 2001; Eklöf & Westlund, 2002). Hence, perceived quality was hypothesized as a key antecedent of customer satisfaction.

H1: Perceived quality has a significant effect on customer satisfaction

Zeithaml (1988) suggested that perceived value can be considered as "consumer’s overall assessment of the utility of a product or service based on perceptions of what is received and what is given". According to the equity theory, satisfaction exists when consumers perceive their output/input ratio as being fair (Oliver & Swan, 1989). A person may or may not feel fairly treated based on the benefits received compared to the price paid, time and effort spent during the purchase and experience of previous purchases (Woodruff, Cadotte & Jenkins, 1983). It was established in literature that perceived value is a significant antecedent of customer satisfaction which implies that customers who perceive superior value tend to feel more satisfied (Fornell et al., 1996; Johnson et al., 2001; Eklöf & Westlund, 2002). Since, this study considered two distinct variables for value; perceived monetary value and perceived non-monetary value, both were hypothesized as antecedents of customer satisfaction.

H2a: Perceived monetary value has a significant effect on customer satisfaction

H3a: Perceived non-monetary value has a significant effect on customer satisfaction

There is ample evidence in literature stating that perceived quality has a positive influence on perceived value (Grewal, Krishnan, Baker & Borin, 1998; Sweeny et al. 1999). Hence, perceived quality was hypothesized as antecedent of perceived monetary value and perceived non-monetary value.

H2b: Perceived quality has a significant effect on perceived monetary value

H3b: Perceived quality has a significant effect on perceived non-monetary value

Based on the established hypotheses, perceived quality was proposed to have both direct effect on customer satisfaction as well as indirect effect through perceived monetary and non-monetary value. Inspired from popular national CSIs such as ACSI, ECSI and other customer satisfaction studies (Fornell et al., 1996; Cronin et al., 2000; Aydin & Özer, 2005), both perceived monetary value and non-monetary value were hypothesized to have a mediating effect between perceived quality and customer satisfaction.

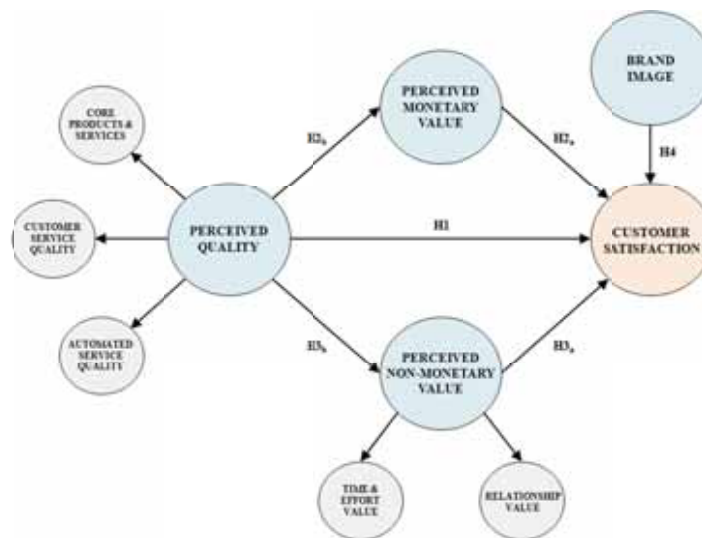


Figure 1. Hypothesized CSI Model for Indian Banking Industry

H2: Perceived monetary value has a significant mediating effect of perceived quality on customer satisfaction

H3: Perceived non-monetary value has a significant mediating effect of perceived quality on customer satisfaction

Brand image has been widely defined as the sum of impressions that is created in the minds of the buyers about the brand (Newman, 1957; Ditcher, 1985). Researchers have ascertained that brand image is a significant driver of customer satisfaction (Andreassen & Lindestad, 1998; Koo, 2003; O'Loughlin & Coenders, 2004; Sondoh Jr, Omar, Wahid, Ismail & Harun, 2007). A successful brand image helps consumers to understand and differentiate the brand. It consequently increases the likelihood of purchase and loyalty (Hsieh, Pan & Setiono, 2004). Hence, brand image was hypothesized as an antecedent of customer satisfaction.

H4: Brand image has a significant effect on customer satisfaction

Based on the formulated hypotheses, the proposed CSI model for the banking industry was composed as presented in Figure 1.

7. Conclusion

This study began with an idea originating from the research gap in terms of lack of non-financial, customer-based satisfaction metric. Currently, there is no standardized customer satisfaction index for India that provided an impetus to this pilot research to construct an index for the banking industry. This study is successful in terms of laying the foundation towards building a Customer Satisfaction Index for consumer products and services in the Indian context. It is instrumental in devising an approach to construct a CSI model specific to the banking industry. The comprehensive qualitative research using focus group facilitated the process of finding an indigenous and unique mix of themes and sub-themes that were used as variables in the hypothesized CSI model. Thus, the study effectively achieved its objective of identifying the key determinants of customer satisfaction and developing a CSI model for the Indian banking industry.

8. Implications

The scope for extensive applicability of the CSI presents a wide range of practical implications of this study. First, the study helped unearth an array of customer satisfaction determinants with certain known themes and some unique ones never used before in satisfaction studies such as perceived non-monetary value and its sub-themes which highlight the concept of non-monetary sacrifices of the consumer. This study is useful for both academicians and bankers to understand the determinants of customer satisfaction in terms of customer perceptions in Indian banking industry. The existing other national CSIs and customer satisfaction models with established scales are often very generic or irrelevant in the Indian context, which reiterate the significance of this study.

This study is the initial step to create a standard indigenous banking CSI as a performance evaluation metric. The banking CSI has the potential to be a useful tool for evaluating and enhancing the performance of the banks. It will help in assessing their strengths and weaknesses, finding the areas of improvement and monitoring effects of strategic decisions and changes. In terms of long term implication, annual CSI reports can be published providing performance overview of individual banks and banking industry as a whole. It will act as a complement to conventional performance measures guiding multiple stakeholders such as banks, policy makers and consumers.

9. Limitations and Future Research Directions

Due to time constraints, the focus group study was limited to Chennai. A geographically diverse sample can facilitate more representativeness to ensure lower bias and greater accuracy of results.

The next phase of this study intends to develop instrumentation based on the focus group results and empirically validate the hypothesized CSI model. Eventually, a validated CSI will be established to compute indices measuring performance of banking industry. In future, similar CSIs can be established for different industries such as hospitals, hotels, insurance, etc. to help achieve an improved national competitiveness, quality and greater satisfaction over time.

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Appendix A

Table A1. List of refined Themes and Sub-themes

Themes	Sub-themes	Codes	Frequency
Core Products and Services		Variety of products and services	14
		Various types of accounts	2
		Auto sweep facility	1
		Balance statement update	2
		Instant msg service and updates	4
		Bill payment facility	2
		Different cards and features	2
		Insurance products and features	3
		Loan products and features	16
		Locker facility	1
		Special privileges	1
		Reward schemes, offers, points and gifts	4
		Early transaction facilities	1
		Cheque facility	2
	Facilities for minors	2	
Customer Service Quality	Tangibles (Branch facilities)	Air conditioned bank	1
		Good furniture and facilities	3
		Crowding	6
		Spacious premises	2
	Customer Care	Customer care officer or grievances section	1
		IVR facility	1
		24/7 customer support	1
		Customer support	3
	Quick response	7	
	Prompt and quick service	2	

		Quick transactions	11
		Delays in services/getting late	3
	Efficiency	Fast processing and operation	7
		Formalities and paperwork	5
		Conditions and rules	3
		Staff courtesy	4
		Empathy/personally understand problems	3
		Nature of staff	2
		Helpful and supportive staff	3
	Quality of Staff	Friendly staff	2
		Staff behaviour	2
		Easy availability of senior personnel/staff	1
		Qualified staff	1
		Impartial treatment by staff	1
	Security	Security	2
		Security of e-banking	1
		ATM withdrawal limit	3
	ATM Quality	ATM management	2
		ATM no. of withdrawals	2
		ATMs and deposit machines functioning	5
Automated (Technology-intensive) Service Quality		E-banking service quality	8
		Ease of using e-banking	4
	E-Banking Quality	e-banking website interface	3
		e-banking user-friendly	5
		e-banking website design and aesthetics	2
		E-banking technology	2
		Mobile banking apps	5
		Service charges	11
		Charges for mobile alerts	1
	Monetary Value	Credit card service charges	3
		Interest rates	12
		Minimum account balance	2
		Charges for deposit/withdrawal	2
		Bank and ATM location nearby	16
	Accessibility (Time and Effort Value)	No. of ATM facilities	15
		Easy access and convenience	11
		No. of branches	8
	Non-monetary Value	No. of branches and ATMs	3
		Bank working hours	3
	Relationship Value	Staff known personally	2
		Loyalty and reward programs for privileged customers	5
		Good customer relationship	4
		Owned by government	4
	Brand Image	Nationwide bank	1
		Private bank	3
		Trust and assurance	1

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Investment Processes and Economic Model Transformation in the Russian Federation

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Abstract

The economic development is ensured by the capability of a socioeconomic system to have a stable and extended reproduction connected with investment security and its effective use. An investment scale and efficiency influence the replacement and extended reproduction of fixed capital and the society's social development. The paper aims at analyzing the specifics of economic development of Russia in the historical context based on investment criteria during the transition to regulated market; identifying the key drivers of economic growth at different stages. The phases of the Russian economy's market transformation in the course of its restructuring are systematized, the economic development peculiarities are qualitatively characterized in each phase. The common regular connections between an investment process character and an economic development level are found, key economic growth factors are identified in each phase, and their characteristics are defined. The level of a social development in the course of the Russian Federation economy's market transition is assessed.

Keywords: investment process, economic growth, social and economic development, market transition

1. Introduction

Development is a process of directed and natural changes of a social and economic system which results in its new and better state, improved efficiency of resource use and life quality in accordance with the needs of the society.

The reproduction character of an economic development is ensured through its investment component so the level of Russia's economic development is evaluated to a great deal in terms of investment criteria. Technical and technological development is known to be based on investment activity. Karl Marx substantiated that 'The additional capitals formed in the normal course of accumulation serve particularly as vehicles for the exploitation of new inventions and discoveries, and industrial improvements in general' (Marx, 1960, V. 23, p. 642).

Due to the lower purchasing power, drop of incomes in real terms, and the lack of borrowed funds the business activity is slowing down, a business class is refusing long-term projects connected with investments in fixed assets and mainly investing quick and highly liquid assets. The government makes investments within severe budgetary constraints caused by a plunge in prices for crude oil and a decrease of the current tax base with the decline in real household incomes and industrial and commercial business profits. The volume of foreign investments into the Russia's economy has considerably dropped, with the restricted access to international financial markets having an adverse effect on the investment market.

In addition to the complications of the global geopolitical situation, weaker foreign trade and investment technological capacity in the global economy, the destabilizing factors of the economic development are believed by Sergey Naryshkin, the Chairman of the State Duma, (Naryshkin, 2010), to be historical particularities of the economy transformation protracting for more than 20 years, adverse economic and social effects of the disintegration processes in the former Soviet Union countries, major reforms of the country's national-state structure.

The economic slowdown of Russia, after the active phase of the recovery from the crisis in 2011 from 4.29% to 3.44% in 2012, to 1.29% in 2013, to 0.63% (Note 1) in 2014, and the planned recession in 2015, is taking place in times of difficult geopolitical situation and dramatic drop of crude oil prices.

Fuel and energy commodities (raw materials, in general) make up about 65% of Russia’s export, about 40% of earnings derived from exports making earnings of oil and crude oil sale (Note 2). Under such circumstances the fall in oil prices results, first of all, in falling federal budget revenues considerably and necessitates the development of an austerity program, the reduction of budgetary expenses, and the search for new development prospects of the Russian economy.

Other destabilizing factors increasing the growth of the federal budget deficit and conditioning the periodical sequestering of budgets at all levels involve the incorporation of new territories requiring great investments in the development of transport and energy infrastructure and additional on-budget expenditures.

2. Method

The research is based on traditional methods of a scientific analysis, economic and mathematical statistics, empiric study and logic analysis, graphics simulation and econometric modeling, etc.

To assess the peculiarities of investment participation in the process of market transformation the features of the Russian economic development through its investment criteria will be considered in a particular historical context of the economic transformation and transition to the regulated market.

In 1990s Russia initiated a rapid step-by-step transition to a market economy which was considered to be of a catch-up process in relation to already developed market economies. During 90s the concentration of financial resources in the hands of owners took place. The majority of privatized enterprise owners ‘squeezed’ the maximum return from obsolete and worn out processing lines without concern for the equipment and technology upgrade. That led to the gradual degradation of the infrastructure, material and technical base which lay the foundation for the creation of public goods and development.

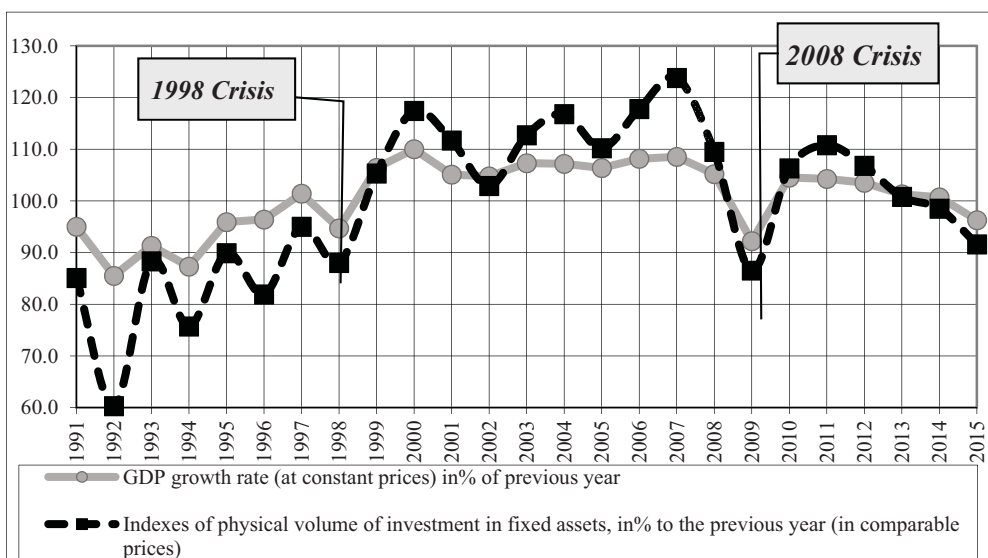


Figure 1. The dynamics of GDP growth rate and volume index of fixed capital investments within the period of market transformation in Russia (calculated by the author according to Federal State Statistics Service)

As a result, the rate of main production assets depreciation has increased considerably since 1970s (Table 1). If it did not exceed 26% in 1970, by 2014 the rate had grown by almost two-fold and reached 50%.

Table 1. Fixed Capital Depreciation Level (at the end of year in %) (Source: Federal State Statistics Service)

Years	1970	1980	1990	1995	2000	2005	2010	2011	2012	2013	2014
All fixed assets	25.7	36.2	35.6	39.5	39.3	45.2	47.1	47.9	47.7	48.2	49.0

Table 2 also shows the low renewal and retirement indicators of fixed assets. The renewal coefficient throughout the economy dropped from 10.6% in 1970s to 4.3 % in 2014. At such renewal rate fixed assets must work more than 20 years until their replacement.

Table 2. Renewal and Retirement Indicators of Fixed Assets (at the end of year in %) (Source: Federal State Statistics Service)

Years	1970	1980	1990	1995	2000	2005	2010	2011	2012	2013	2014
Renewal coefficient	10.6	8.1	6.3	1.9	1.8	3.0	3.7	4.6	4.8	4.6	4.3
Retirement rate			2.4	1.9	1.3	1.1	0.8	0.8	0.7	0.7	0.7

To assess the investment influence on Russia’s economy transformation in transition to a regulated market the process of market reforms is logically assumed to be divided into three periods with 1998 and 2008 crises as boundary points (Figure 1 shows the dynamics of GDP growth rate and volume index of fixed capital investments within the period of market transformation in Russia).

Each period between the two crises shows rather sustainable trends influencing the key characteristics of the country’s economic growth correlating explicitly with crude oil prices on the global market (Fig. 2).

Figure 2 illustrates the market transition phases of the Russian economy.

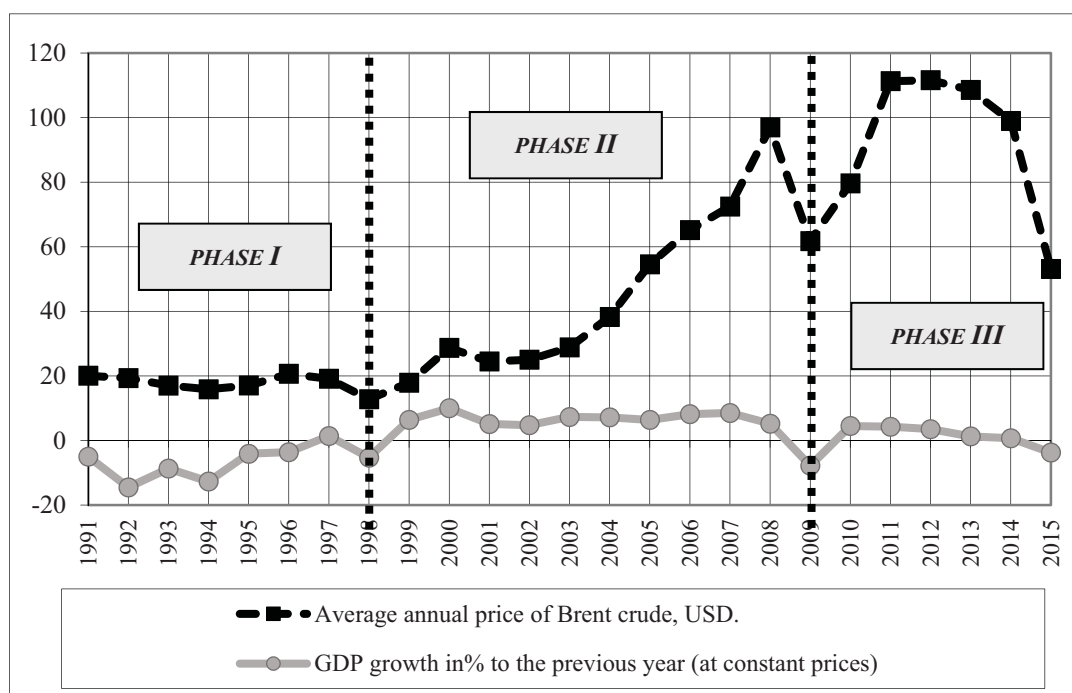


Figure 2. The relation between annual average Brent crude oil prices (Note 3) (US\$ per barrel) and the Russian Federation GDP growth rate (Note 4) (% to the previous year, in constant prices) (calculated by the author)

3. Results

Each phase indicated has the following characteristics:

Phase I: 1991–1998 (the initial period of the market transition with rather stable low Brent crude oil prices, about US\$20 a barrel, a sustainable decline of GDP and investment activity, the average annual price fell less than US\$13 a barrel in 1998, the economic crises resulted in the real GDP decline and the devaluation of national currency, Fig. 2);

Phase II: 1999–2008 (thanks to the favourable state of the global energy market, oil price increase, and devaluation, we could see the GDP and investment recovery but a new drop in global energy prices at the end of 2008 caused another GDP decline and rouble devaluation);

Phase III: 2009–2015 (the short GDP and investment growth occurred in a correlation with energy carrier prices but due to geopolitical constraints, the introduction of anti-Russian sanctions, and the fall of global crude oil prices at the end of 2014 the problem of the Russian economic security seems to come first).

A high correlation of GDP and crude oil prices during the whole period of market reforms is fundamental and related to the fact that the official statistics about the share of oil sector in GDP are greatly underestimated. For example, to avoid taxes many companies sell their produce to trade (intermediate) companies being their subsidiaries at below market prices, the underestimated prices are considered to be transfer ones. Further intermediate companies sell mineral products recovered to end buyers through offshores. Therefore, the considerable part of a mining industry added value transfers to a service industry or remains in offshores abroad and so is not taken into account by the Federal State Statistics Service.

In 2006 O. Berezinskaya and V. Mironov calculated that ‘if the GDP structure were not distorted by transfer pricing and export price understatement, the situation would be different... According to our calculations its [mining industry] share makes not 6–9% of GDP (according to official data) but 14–15% in 1996–1998 and more than 20% in 1999–2003. With the pipeline transportation taken into consideration, it made about a quarter of GDP in 1999–2003.’

Sergey Shmatko, the Minister of Energy from 2008 to 2012, spoke in his report to the RF State Duma on December 8, 2010, ‘On the whole, I would like to mention that for the current period the fuel and energy sector remains dominant in the GDP volume, its share is reaching 30%...’

In 1994, more than 20 years ago, Leonid Abalkin describing the economic circumstances of that time wrote, ‘The production cutback is leading to inevitable exclusion of domestic producers not only from the world market but the domestic one... The development of such trend can become irreversible so the production would not be restored due to the lack of appropriate markets even with strong and massive financial and other support. Thereby the recovery and revitalization of the Russian economy would be impossible and the country would lose the chance to return to the circle of highly developed nation.’ (Abalkin, 1994)

Today we have come to the situation when the domestic producers are practically excluded from both the world and domestic market but it is difficult to assess if we came to the point when the process became irreversible.

Let us calculate the values of key investment indicators of the economic growth on the average over the economy transformation periods spoken above (Table 3).

Table 3 shows that in the first phase of market transformation in 1991–1998 the GDP physical volume calculated in constant prices fell by 42.5%, the fall making about 6.7% a year on the average. In the second phase the crude oil price increase and rouble devaluation caused the GDP growth (by 79.5% over the whole period and by about 5.5% a year on the average) and investment revival. In the third phase of market transformations after the 2008 crisis the rate of the economic growth and investment activities has noticeably decelerated.

Table 3. The investment security of the Russian Federation’s economy over the period of market transformation (Source: Calculated by the data of Federal State Statistics Service)

	Phase I 1991-1998	Phase II 1999-2009	Phase III 2010-2015
GDP growth rate over the whole period (calculated in constant prices), %	-42.50%	79.50%	15.00%
Annual average GDP growth rate in constant prices, %	-6.69%	5.46%	2.82%
Growth of fixed assets volume over the whole period, %	5.36%	21.48%	16.42%
Annual average growth rate of the fixed assets physical volume in comparable prices, %	0.65%	1.79%	3.87%
Investment growth over the whole period (in constant prices), %	-78.89%	184.71%	4.55%
Annual average investment growth rate in constant prices, %	-17.67%	9.98%	4.08%
Annual average Brent crude oil price, US\$	17.72	46.73	93.85

Further we are describing the transformation of the investment security of the economic growth in each phase.

It is worth noticing that in the first phase of market transformations (1990–1998) financial goals determined the priorities of the economic policy which pushed to the oblivion the development needs of the real sector of the economy. The concept of the Russian economy reforms in 1990s was based on monetary principles without regard for the existing peculiar institutional conditions which largely accounts for the failure in adopting imported market institutions.

According to the book *Institutional Constraints on Modern Economic Growth*, 'The leaders of the first reformist government of Russia preferred to focus their efforts on some crucial areas of economic reforms in the narrowest sense: on price and trade liberalization, on privatization, on financial stabilization. ... in the first months and years of reforms they did not address the core of the old institutional system so with time they were hampered by the constraints connected with government failures in key areas of its responsibility: justice, security, and defense.' (Lisin, Yanovsky, et al, 2011).

The degree of readiness of various institutes to radical reforms in economic, political, and social spheres was not studied. The cultural consciousness of the Russians did not favour market reforms they actually hampered them.

The author relates the intrinsic causes of a deep transformational decrease in the market transition with the fact that the majority of new enterprise owners do not have long-term investment development plans so 'the firm activities are regulated by short-term needs and the new owners' motive of self-enrichment dominates the objectives of production development.'

This phenomenon of development when a personal interest does not correspond to the enterprise's interest or collective public interests, the desire of individual enrichment prevails over the development objectives was described by George Kleiner as 'economics of individuals' (Kleiner, 1996). It is a paradoxical situation in terms of the enterprise development promotion when deals are made to serve individual interests with prejudice to the interests of the enterprise. It is largely connected with the perceptions of insecurity and high economic and political risks when it is highly probable to lose business due to economic and political reasons and, therefore, the concern for individual ownership takes priority over the concern for an enterprise.

As a result the savings and current account deficits occur. The savings deficit becomes evident when the level of savings available for the industry is much lower than the volume of investments necessary for the production development. The low level of savings reflects the shrinking public confidence in the existing financial institutions. The household propensity to save in the period indicated is mainly realized in accumulating foreign currencies, real estate, and other non-liquid assets not accumulated by financial institutions. Under such conditions the source of accumulation is an external loan resulting in trade and payment deficit. Besides, the import of foreign loan capital into Russia is accompanied by heavy illegal capital export, not reported by official statistics.

The consequence of the changes was the increase of a crisis potential: economic recession, investment reduction, critical state of production facilities, negative shifts in the economy structure to the development of, mainly, a trade-intermediary sector, a further consolidation of the established development model based on raw material exports, the reinforcement of income differentiation between different sectors of economic activity and territories, deformation of money supply and payment system, expatriation of assets, budget deficit increase, and social problem accumulation (Igonina, 2013).

The capital outflow from a real sector to a financial one associated with the difference in the return on investment level has led to both the reduction in financial resources in a production environment and the overgrowth of a financial sector which was not based on a stable reproduction basis. The share of long-term credits in a total volume of bank assets made 3–4%, with credit interest rates being 5–16 times higher than the industrial production profitability level. Accumulating up to 90% of population savings and enterprises' assets, banks invested them primarily in government securities which were the most attractive in terms of revenue, reliability, and liquidity. Moreover, more than 80% of the Russian capital market was capitalized by fuel and energy companies' shares.

In regard to capital export in the years of reform, namely the total amount of capital exported from Russia, the estimates of various expert centers vary in magnitudes. Differences stem mainly from the lack of reliable and complete information on the operations of the initial period of reforms (The Central Bank of Russia has been reporting on the balance of payments and withdrawal of capital from our country only since 1994, but not 1992).

'The most appropriate of the best available assessments is made by the Russian Finance Ministry. According to it, a net flight of capital from Russia amounted to US\$265-285 bn in 1986–1995. With due consideration of the capital outflow in the following years (US\$142.3 bn), the period of reforms in Russia plundered the country to the astronomical amount of US\$407.3–427.3 bn. According to experts of the Association of Russian banks, the amount of capital (i.e. taking into account public funds and not including foreign capital influx) transferred abroad in the 1990s was within the range of US\$800 bn–US\$1tn.' (Igonina, 2013).

The second phase of market transformations started in 1999-2000s when positive trends on the world's energy markets and the depreciatory effects contributed to the breaking-out of a lengthy and severe period of recession

in the Russian economy. These factors led to the development of export-oriented manufacturing, influx of currency returns, gradual expansion of money supply and lower interest rates. However, a development model based on a concentrated proprietary, oligopolistic structure of business, export of raw materials was subjected to high market fluctuations depending on the world market prices and resulted in building-up internal risks and threats.

The main road block hampering the development of the Russian economy and being apparent in the second phase of market transformations, consists, in the opinion of V.K. Senchagov, in the fact that ‘the financial and banking system, corporate management and all the parts of government machinery are not able to use for the benefit of the country and its citizens the accumulated resource potential and funds the country has earned in the favourable pricing environment. This was proved by the experience of 2000–2004 when our financial and banking system was unable to convert auxiliary income into investments (Senchagov, 2001).’

Due to existing structural and functional characteristics, ‘the Russian economic system is very sensitive to such external shocks as a global economic slowdown, worsening of price environment in oil markets, a drop of liquidity in global financial markets’ (Igonina, 2013). As a result, the effects of the 2008 global crisis proved to be more significant for the Russian economy than for other countries. All that greatly complicated the tasks of restoring and building the economy.

A key feature of the third phase of the market transformations which began after the 2008 crisis was a sharp increase in capital outflows. According to the Central Bank of the RF’s official data, it amounted to US\$133.6 bn in 2008, US\$153 bn – in 2014 and for the period of five years (2010–2014, not taking into account the data of 2015) it was more than US\$380 bn (Note 5).

According to Karl Marx, capital export and flows are possible due to the fact that countries with different levels of economic development are involved in a global capital turnover. In developing countries the profit is high as the organic composition of capital is low, labor and raw materials are cheap, and land is low-cost. ‘If capital is exported abroad, it is not because it could not find an application in the country. The reason is that capital can be placed at a higher rate of return abroad (Marx, 1961, V.25, p. 281).’ The drive to maximize profits entails both the capital flow and its renovation. ‘None of the capitalists switches over to a new method of production on their own accord, no matter however productive it is and increases the rate of surplus value, provided that it reduces the rate of profit (Ibid, p. 290).’

Karl Marx said that capital renovation is based on the desire of businessmen to increase a profit rate. This is exactly what creates motivation and interest in investment.

With regard to the Russian Federation there is a steady tendency to decrease the return rate on equity and sales throughout the whole period of market transformations.

Since the base of capital movement and its renewal, i.e. a motive for investing, by definition is a pursuit of higher profits, the activation of investment process seems to have quite a hard time realizing (Table 4).

Table 4. Dynamics of entities’ profitability (excluding small businesses) in the Russian Federation (*Source: Federal Service of State Statistics*)

	Return on total assets	Profitability of goods, produce, works and services sold
1995	5.3	15.8
2000	7.6	18.9
2005	8.8	13.5
2010	6.7	10.0
2011	6.5	9.6
2012	6.1	8.6
2013	4.5	7.0
2014	2.5	7.3

Thus, according to the Federal Service of State Statistics data the profitability of mining operations in 2014 was 22.2%, the profitability of mining operations except fuel and energy – 36.0%, the profitability of the electrical machinery, electronic and optical equipment production – 10.2%, the profitability of machinery manufacturing – 6.8%, that of the transportation means and transport equipment production – 5.5% (Note 6). In these

circumstances it proves challenging to ensure the further growth of investments into high-tech and knowledge-intensive industries so it seems to be impossible to speak about the economy development.

In the third phase of market reforms, the GDP recovery up to a pre-crisis level in Russia was achieved mainly on account of the fuel and energy industry and high energy prices in the world market (Figure 2 and Table 3). In fact, according to the Federal Service of State Statistics data the volume of investments into fixed assets increased only in 2010–2012, with physical quantity of investments decreasing from 2013 onwards. But the indicator of fixed investment has not reached the pre-crisis level despite the favourable situation on the world energy market. The analysis shows that the reproduction model of funds available for investment by means of raw materials cannot provide a necessary volume of investments into fixed assets and ensure a sufficient economic growth.

The situation was complicated by the significant capital outflow (in 2014 – US\$153 bn, in 2010–2014 – more than US\$380 bn), as already mentioned above, and accompanied by the fall in crude oil prices from the late 2014 onwards. All that led to the reduction in federal budget revenue and sequestering treasuries at all levels.

4. Discussion

An income level determines possibilities of the economic system at any level including the national economy. Samuel Bazzi and Christopher Blattman considered the national income size as a key factor of national development. The authors proved the relationship between national income and political stability. Revenue growth reduces the intensity of internal social and political threats, opposition movements and decreases private incentives to continue the existing social conflicts (Bazzi, Blattman, 2014).

The reasons for the crisis occurrence are divided into economic and institutional, threats and risks have the following subgroups which can play more or less important role (according to different analysts)..

Economic threats and risks are

- RESOURCES AND TECHNOLOGIES (Endress, 2015): deterioration of material and technical basis and technologies; disruption of industrial potential; high level of raw material dependency etc.
- MARKET (Sandri, 2014): market structure changing; sales markets loss; market position falloff; collapse of competitiveness and competitive advantages; monopolies' activities enhancing etc.
- FINANCE (Gourio, 2013), (Bussière, Imbs, Kollmann, Rancièrè, 2013): financial situation disturbance; inability to pay; financial liquidity decrease; high level of financial dependency; financial sustainability deterioration etc.

Institutional threats and risks are

- SOCIAL (Imrohoroglu, Kitao, 2012), (Coile, Levine, 2011), (Dyner, 2009), (Clark, 2004) (Artigea, Dedrya and Pestieaub, 2014) (Chen, Fang., 2013): social situation decadency; migration; labor motivation decrease; living standards deterioration; high rate of social conflicts etc.
- LEGISLATIVE (Arnolda, Hübnerb, 2010): economic criminality; economic crimes growth; low level of legal safety; legislative framework changes.
- ADMINISTRATIVE AND POLITICAL (Chomaa, Hanocha, Gummeruma, Hodsonb, 2013): changes in institutional conditions and guarantees of economic activity; political situation degradation; change of leadership and economic policy principles etc.

In regard to economic development, the relationship between social and financial factors is evident (Azzimonti, Francisco, and Quadrini. 2014). Under conditions of budget deficit, social security can become a source of serious social conflicts which can pose a threat to the development and sustainability of a socio-economic system. According to a number of authors (Senchagov, 1995), etc., substantial disparities in population income and consumption, incidence of poverty, increasing number of people living below the poverty line constitute a dire threat to the economic development of the country.

In studies of foreign authors social factors play quite a significant role in the long-term sustainable development. In particular, Selahattin Imrohoroglu and Sagiri Kitao (2012) proposed a model where they correlate medical expenses, wages, and public health to potential threats of life support.

Professor Lee H. Endress, the former head of the Asian and Pacific Center for Security Studies, in his book *Sustainable Economic Development. Resources, Environment and Institutions* (Sect.3 Scarcity, Security, and Sustainable Development) published in 2015, related the securing of social and economic systems with their sustainable development in conditions of natural scarcity (Endress, 2015). The author examined the relationship between a deficit of natural resources, security and sustainable development. The fear of physical scarcity,

according to the author, may lead to a desire to ensure security through measures that can undermine both the security itself and the economic well-being.

Comparing population income levels with those of debt-service obligations, Karen Dynan notes that ‘over the past few decades financial capacities of households and population incomes have increased significantly (Dynan, 2009).’ Advanced financial opportunities coupled with further credit availabilities contributed to more investments into risky assets amid the unforeseen income fluctuations, as a result obligations were at odds with resources. That is a sure sign of aggregate economic instability, destabilization of individual households and economy as a whole.

Social inequality and society polarization in Russia increased in the 1991–2015 economy reformation period. Table 5 shows the distribution of population incomes within the period according to official statistics.

The situation at hand is plotted in Figure 3. It shows that there has been a significant shift of the Lorenz curve towards inequality gain.

Table 5. Distribution of population income in Russia in 1991–2014, % (Source: Federal Service of State Statistics)

	1991	1995	2000	2005	2010	2014
Distribution of total income by 20 % population groups	100	100	100	100	100	100
first (the lowest income)	11.9	6.1	5.9	5.4	5.2	5.2
second	15.8	10.8	10.4	10.1	9.8	9.9
third	18.8	15.2	15.1	15.1	14.8	14.9
fourth	22,8	21,6	21,9	22,7	22,5	22,6
fifth (the highest income)	30.7	46.3	46.7	46.7	47.7	47.4
Gini index (income concentration index)	0.26	0.387	0.395	0.409	0.421	0.416

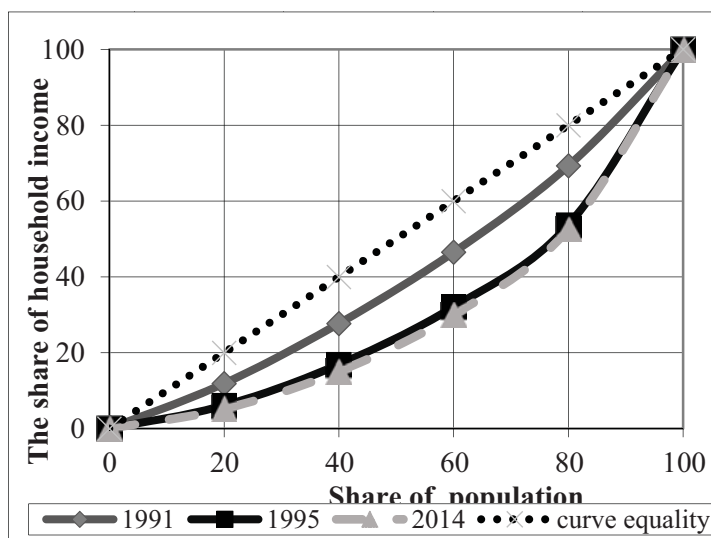


Figure 3. Shift of the Lorenz curve in Russia in 1991-2015 (Source: constructed by the author)

It should be noted that the Federal State Statistics Service underreports the data on inequality level due to the existing data collection system which does not take into account the informal economy. At the same time high incomes tend to avoid paying taxes.

Nevertheless, even according to the Federal State Statistics Service there is a stable trend towards greater inequality. The gap between population incomes boosted in the first half of the 1990s. Huge difference in living conditions of population is perceived by the society as a violation of social equity principles and can lead to the escalation of efferent tendencies and separatism, the deterioration of economic security in some regions and in the Russian Federation as a whole.

As for the estimation of socio-economic development it is worth mentioning that there is an idea that ‘the

traditional macroeconomic development indicators like GDP do not meet modern challenges, and their use can lead to conservation and aggravation of existing social, environmental and economic negative trends (Bobylev, Sergey, Zubarevich, & Solov'eva, 2015).’ The authors propose to change the approach to the measurement of development indicators by putting emphasis on social and environmental performance.

Along with the drop in welfare and quality of life, the 1990s reforms impaired significantly the demographic situation. In the long run enhancing mortality and falling birth rates led to the negative values of natural population growth that was observed for the first time from the beginning of the XX century (Andreev, Darskii., & Khar'kova, 1998). The dynamics of birth and death rates in Russia in 1950–2014 is plotted in Figure 4.

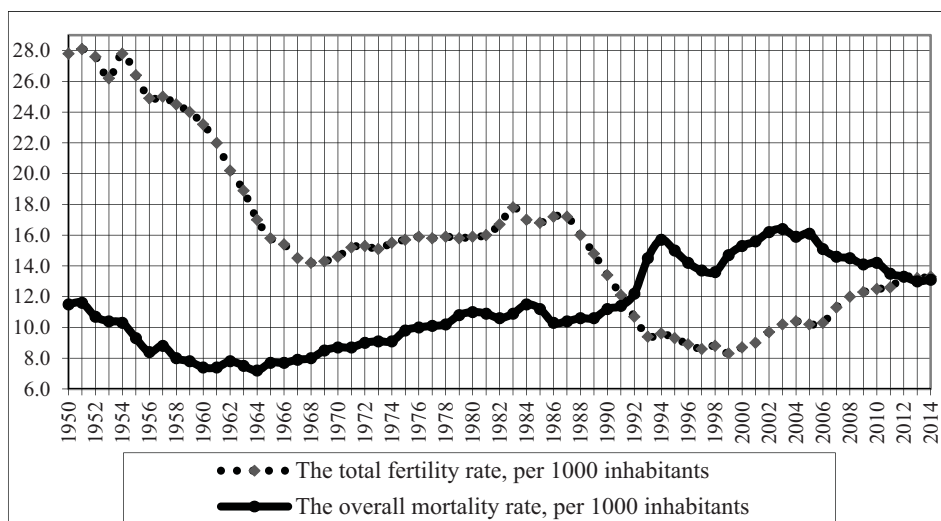


Figure 4. Dynamics of birth and death rates in Russia in 1950–2014 (Source: Federal Service of State Statistics)

Being a determinant of the population reproduction the joint dynamics of birth and death rates shows that despite the systematic decline the reproduction of the Russian population had expanded by the end of the 1950s (with the exception of mass starvation periods in 1933-1934, 1947-1948, and in the war period).

During the years of market reforms Russia experienced the rising incidence of major diseases associated with high levels of stress and poor quality of life and respectively the increase in mortality. During these periods a male mortality rate at young age was very high, several times as much that of women. Men were much more sensitive to disasters of the 90s than women.

During the period of economic reforms the rate of certain diseases significantly increased in general. For example, if the total number of registered diseases in patients with the diagnosis determined for the first time increased by 16% in comparison with 1991, with the population being down by 3% in 2014, the incidence of diseases of blood and blood-forming organs and certain disorders involving the immune mechanism became 3 times as many; endocrine diseases and metabolic disorders – 2.8 times; diseases of the circulatory system – 2.6 times; congenital anomalies / birth defects, deformations and chromosomal abnormalities – 2.5 times (Note 7).

In addition, incidence of malignant tumors increased by nearly 30%, active tuberculosis – by 73% as compared with 1991. Notably, in the 1990s, at the first stage of reforms there was a sharp increase in the incidence of active tuberculosis, 2000 evidenced a 2.6 increase of the disease incidence, afterwards there was observed a slowdown.

The lack of a generated hazard management mechanism due to the problems inherent in the overall system and threatening national economy promoted an aggravation in a number of economy sectors, first of all, basic infrastructure industries: public health service, education, system of courts and law enforcement. This has a knock-on effect on the development and national security of regions and country as a whole, reduces the population living standards.

The population incidence rate may be associated both with health care quality and environmental degradation. The state of the environment can threaten the sustainable development of a country, a society, and a world civilization. Environmental degradation leads to the biosphere (life sphere) destabilization, the loss of its integrity, the inability to maintain desired vital qualities of environment.

The results of the research do not seem to escape the conclusion that current investment crisis in Russia is quite logical. There have been no significant changes in economy despite an extensive discussion and long-term debates on the problem of obsolescence of a source-based economy model based on the accelerated export of fuel and raw materials and the low cost of such production factors as labor, fuel, and electricity.

Assessing the current economic state of our country Sergey Afontsev says that the absence of Russia's full-fledged access to international markets of goods, capital, and technology 'could mean the minimization of the crisis damage in a best case scenario but not the prospects of overcoming it (Afontsev, 2015).'

To implement import substitution in the long term domestic companies should be able to invest in the expansion of production, technological modernization, and performance efficiency. This requires an access to sources of capital and technologies on the basis of which new production capacities can be set up.

The high country risk, the current lack of potential investors' trust in state institutions, the non-availability of a viable protection mechanism for property rights and security of investments in order to prevent the possibility of state or competitors' expropriation, the lack of mechanisms of transforming savings into capital investments led to a current investment crisis in Russia.

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Research on the Dynamic Mechanism of Enterprise Synergy Innovation: A Literature Review

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Abstract

Innovation is the guarantee of enterprises to win in the market, while the synergy innovation is an effective way of enterprise innovation. Based on the synergy innovation concepts and theoretical analysis, this paper studies abroad enterprise synergy innovation background and the way of realization. It theoretically sums up the synergy innovation dynamic mechanism from both the internal dynamic mechanism and the external dynamic mechanism, and summarizes the role of the synergy innovation in practice. It also discusses what can be learned from the foreign experience.

Keywords: synergy innovation; dynamic mechanism; driving force analysis; industrial alliance

1. Introduction

In the knowledge economy era, enterprise is the principal part of the innovation, synergy innovation is one effective way to help the enterprise realize the outputs maximization with limited inputs. The synergy innovation is not limited to new product, new service, but with the innovation on BPM and business model. The enterprises are now emphasizing on the management concept and the organization structure optimization to keep high level creativity and innovation spirit^[1].

The success depends on the synergy of multi-elements. The synergy might consist of the internal elements as the enterprise culture, the management, technology, it also might be the multi-agents' synergy between the enterprise and the external elements as the external enterprise, the university, the scientific institute and the Government, etc.^[2] This paper studies on the literatures of synergy innovation related, setting up the synergy innovation definition, classifying the internal and external mechanism on the synergy innovation and pointing out the research route on the dynamic mechanism of enterprise synergy innovation.

2. Literature Studied

2.1 Synergy Innovation Definition

The meaning of the synergy innovation is very complicated. On one hand, it is owing to the diversity of the synergy innovation forms, on the other hand, it is also with the complexity of the synergy innovation theory. Domestic and the foreign scholars have put forward relative definitions. The earliest definition was put forward by Professor Gloor^[3] from MIT Sloan Center, "It's the networking group vision from the self-motivated group members, they exchange thoughts, information and work through internet crossing countries' collaboration to achieve the common goal". After that, there're researchers put forward the horizontal and vertical synergy innovation concepts with the enterprises as the innovation subject. The horizontal synergy innovation is the cooperation among the competitors, the research institutes and the universities, the vertical synergy innovation is the cooperation between the suppliers and the clients. Some researchers think the enterprises, the universities and the researchers' synergy innovation is one input and output system in the enterprises, the universities and researchers' trinity mode, the researchers realize the synergy through communication and exchange with the input of human, financial and material resources to get the innovation performance output. Chen Jing defines the synergy manufacturing is the basis of the synergy innovation, the synergy innovation is the innovation among the enterprises, the government, the knowledge production organizations, the intermediary organizations and the clients to achieve the innovation organization mode with breakthrough technology innovation, knowledge value-added as the core and long span integration^[1]. There're also definitions of narrow sense and broad sense,

the definition from narrow sense is two or two above enterprises carry out technology innovation or product research to form the synergy cooperation and the definition from broad sense is two or two above organizations participate with knowledge sharing and technology transferrin to form cooperation relation.

The success of synergy innovation is determined by the applicable conditions and the implementing organization with these applicable conditions. The synergy innovation provides the joining force with multi-agents' cooperation to achieve the higher income and lower risk through important innovation activities.

Summarizing the research on the synergy innovation home and abroad, this paper makes the synergy innovation definition as:

Table 1. Synergy Innovation Definitions from the Researchers home and abroad

Researcher	Year	Major Point
Peter Gloor ^[3]	2005	Synergy Innovation is the networking group organized by several scientific researchers achieving the common goal with the thought and technology communication through network platform.
Persaud A ^[4]	2005	Synergy Innovation is the synergetic process that several participants cooperate to achieve innovation performance through the research and the development cooperation.
Ketchen D. ^[5]	2007	Synergy Innovation is the co-creation with the crossing organizations through the thought, knowledge and domain expertise exchange and communication to maintain the organization sustainable innovation.
Serran F. ^[6]	2007	Synergy Innovation is one complicated interactive system of the crossing synthesis with knowledge, technology, information and resource.
StefanS ^[7]	2009	Synergy Innovation is to improve the organization's innovation performance with the effective response to the environment changes.
Chen Jing ^[11]	2012	Synergy innovation is the innovation among the enterprises, the Government, the knowledge production organizations, the intermediary organizations and the clients to achieve the innovation organization mode with breakthrough technology innovation, knowledge value-added as the core and long span integration.
Zhang Zaiqun ^[9]	2013	Synergy Innovations from narrow sense and broad sense, the definition from narrow sense is two or two above enterprises carry out technology innovation or product research to form the synergy cooperation and the definition from broad sense is two or two above organizations participate with knowledge sharing and technology transferrin to form cooperation relation.
Tao Chun ^[26]	2013	Synergy Innovation is that the multi agents cooperate and innovate synchronously with consensus to the important and complicated innovation activity based on the mutual trust and knowledge accumulated. Mutual trust and knowledge accumulated is the base, consensus is the vision and cooperate and innovate synchronously is method.
Chen Bo ^[8]	2014	Synergy Innovation is to guide and arrange the mechanism with state will to push the universities, research institutes and enterprises to play different roles, coordinate resource, realize complementary strengths and facilitate the technology roll out and industrialization.

2.2 Type of Synergy Innovation

Type of the synergy innovation includes the enterprises, the universities and the researchers' synergy innovation, the industrial cluster innovation, the production chain synergy innovation, the enterprise synergy innovation networking organization, etc. The enterprises, the universities and the researchers' synergy innovation is the crossing organizations' and the crossing departments' innovation activity, the research on the enterprises, the universities and the researchers' synergy innovation in China starts from 1990s, the theorists recognize the importance of the organization the enterprises, the universities and the researchers' cooperation. The enterprises, the universities and the researchers' synergy innovation reflects the systematic mindset from the closed innovation to the open innovation^[10]. Some researchers think the innovation of the enterprises in the supply

chain should be on mutual trust basis. The enterprise oriented production chain innovation is that the enterprises carry out value creation activities through positioning and relationship changes in the value chain. Industrial cluster is to provide continuous support to the enterprises, universities and researchers' synergy innovation^[8]. The form and perfection of the regional collaborative innovation networking forms the organization foundation for the enterprises, the universities and the researchers' synergy innovation. The synergy innovation networking organization not only has the specific objectives of the traditional enterprises, but also introduces the flexible marketing mechanism. The synergy innovation networking organization emphasizes on the collaboration and multi-winning targets with networking organization elements on the society, economic and technological platform^[9].

3. Driving Forces Analysis on Synergy Innovation

From closed innovation theory to open innovation theory, then to the synergy innovation put forward by the theorists these years. The more comprehensive is that the researchers make on the innovation type. The more significant is the dynamic mindset on innovation. The driving forces analysis is the necessary research content to intensify the synergy innovation research. This paper studies the elements on the driving forces of synergy innovation and the driving forces mechanism on synergy innovation is one dynamic and developing mode. We do the research on the classification of the synergy innovation. The driving forces on synergy innovation are classified into three groups as the enterprise boundary, the source of driving forces and the driving force attributes.

3.1 Driving Forces Analysis on Enterprise Boundary

The driving forces on the whole synergy innovation can be classified as the enterprise internal driving forces and the enterprise external driving forces based on the basis that the driving forces exist inside or outside of the enterprise.

3.1.1 Enterprise Internal Driving Forces Analysis

With the changing of the knowledge production mode, the technology complexity and merge, the uncertainty of the innovation has been intensifying in the past years. Key innovation activities depend on the communication and cooperation among multi-disciplines and multi-domains. The enterprises innovation capability has been challenged increasingly. Some successful enterprises have been forming synergy innovation network among the enterprises, the universities and the research institutes, the government and the intermediary organizations through the contractual relationship, the cooperative networking and the society relationship to improve the success probability, decrease the risk cost and occupy the market more efficiently.

The successful enterprises put more emphasis on the synergy innovation on the key projects excluding the competitors outside the collaborative network to stop the competitors' imitation and surpassing. The competitors can imitate one specific ability and innovation, but it's difficult to imitate the synergy innovation organization based on the multi-agents. It's one effective way to participate in the synergy innovation networking to support the surpassing. In the future, it will be difficult for the enterprises to complete the complicated innovation tasks on their own, but with the synergy innovation to play an increasingly important role.

Joseph A Schumpeter^[11] puts forward the innovation driving force firstly, he thought the innovation motive power comes from the excess profit pursuit and the entrepreneurship. Lawson^[14] brought up innovation ability concept and he mentioned that the outstanding enterprises invest and foster the innovation management ability and the innovation ability improvement include the enterprise elements as the vision and strategy, capability base, witty to change, creativity and the mindset management, the organization structure and the system, the culture, the climate and the management technology. It is to apply innovation on the new product, service and process through the effective implementation process. Eesley^[18] thought that heterogeneity of the team can enhance the enterprise innovation. Weigelt^[16] mentioned that organization structure can influence internal knowledge flow, knowledge creation and trading cost, and then strengthen the synergy innovation. Alexander and Knippenberg^[17] puts forward the point that excellent organization incentive can enhance the innovation. Shin^[15] found that the high-level differentiation and the synergy among different departments can be good pre-conditions to high performance, the absence of the members' differentiation always leads to the internal competition in the similar positions.

Domestic researchers think that the essence of enterprises on revenue pursuits and entrepreneur spirit enhance the enterprises' innovation^[12]. Xiang Gang and Wang Yingluo mentioned that the motive power for enterprise sustainable innovation should come from inside, not outside of the enterprise. The basic motive power is from the sustainable improvement on the enterprise revenue and the development on enterprise size^[13]. The basic

driving force results in the entrepreneurs' mindset on the sustainable innovation and the sustainable innovation spirit, the material interest motivation, the enterprise innovation culture and the teamwork spirit. Li Baizhou and Dong Yuanyuan^[12] also thought that the enterprise's pursuits on the benefit are the core driving forces to the original innovation and is the basic original power to push the enterprise to the innovation, the entrepreneur spirit is the strong impetus to the enterprise innovation development. The entrepreneur sustainable innovation mindset and the spirit are the most important core element in the internal driving forces. There're also researchers mentioned that the cooperation between different types of employees can enhance the enterprise synergy innovation. They thought the synergy innovation among enterprise members covers the synergy innovation between the employees and the departments. The cooperation among marketing and sales, manufacturing and production, research and development can improve the innovation success significantly.

Theorists have also been studying on the enterprise resource, capital, information, technology and talent beside the research on the enterprise benefit pursuit and the entrepreneur spirit. The study above supports the enterprises to seek the synergy innovation development and the improvement on the enterprise operation management.

3.1.2 Enterprise External Driving Forces Analysis

With the background of the globalization and informatization, the success on the significant innovation activity is the society collaboration process. Facing the more and fiercer international competition, some developed countries hope to improve the enterprise and industry innovation competition advantages through the improvement on the science and technology, strengthen the marketing vitality and driving force, lower the risk cost on the major projects. The Government need to set the regulation for the enterprise synergy innovation, encourage the enterprises to cooperate with other organizations, lower the risk, improve the return and enhance the product innovation and the process innovation.

Organization alliance provides the platform for the synergy innovation, the stakeholders realize the resource complementary on the knowledge and information and then set the foundation for the synergy innovation. The innovation plays important role in the enterprise competition in the knowledge society. At the same time, the organization alliance can provide the impetus to the innovation. Ayunso^[19] mentioned that the stakeholders can take advantage of the organization resource to enhance the mutual communication, transferring, sharing and feedback to all the parties. Peter^[20] put forward that the synergy innovation can promote the knowledge sharing and facilitate the enterprise innovation. The increase of the partners also adds the risk related. Hence, the effective synergy innovation is to form the network with the resource complementary. Love^[22] pointed out that learning effects can result from all the exploring external connection and also enhance the enterprises to produce more innovation outcomes. This is one exchange and information processing process when opening the external knowledge source through the searching activity and connecting the external cooperators in the new product development. Eesley^[18] thought that the synergy innovation between different foundering teams can realize the excellent performance when pursuing the innovation strategy.

The synergy innovation can enhance the knowledge sharing, accelerate the production of the enterprise innovation. At the same time, the increase of the partners can create related risk. Hence, the effective synergetic network should be the network complementary with the enterprise's resource. The network development depends on the government provide excellent environment to normalize the market to maintain the sustainable synergy innovation. Synergy innovation needs the information flow and knowledge flow to move freely like the air. In reality, there're Information asymmetry, intelligence property barriers and restriction on talent flow restricting the enterprise synergy innovation. The enterprises need the government to provide the external environment adapting the synergy innovation, lower the innovation risk cost and increase the innovation success probability. There're more highly competent talents and frequent communication on the affluent innovation knowledge sources and the basic elements with successful synergy innovation in some of the developed countries^[24].

Domestic theorists have been studying the synergy innovation focusing on the resources complementary, mutual trust, cooperation and collaboration among different multi-agents to achieve win-win and all-win. There're major influencing factors on the development of synergy innovation as the society economy, the culture, the science and technology, the ecosystem and the government policy with the changes of the science, the marketing demand and the marketing mechanism. Zhang Weifeng^[23] thought the enterprise can absorb and develop new knowledge from external environment not only to break the rigid phenomenon on its own knowledge development, but also acquire new knowledge to realize and assure the innovation success well. Fang Taisheng^[21] put forward the enterprise applying the competitive, cooperative and interactive collaborative mode to enhance the fostering of the sustainable innovation dynamic driving mechanism through the value solidification with internal innovation

elements connection in the industrial cluster. The cooperators in the synergy innovation interpenetrate through resource dependence and value alliance to form the innovation network in the dynamic ecosystem. The network can develop by itself to realize the competitive advantage upgrading in the industrial cluster. The researcher considered that the driving elements in the enterprise synergy innovation covering the demand to develop the innovation competitive advantage, resource complementary, strategy development and organization learning. With the booming development of the knowledge and networking economy, information networking technology and the diversity and individualization of the customer requirements enhance the enterprise synergy innovation development. Some thought that the government's guidance and promotion is the important impetus to the collaboration of the industrial cluster. Tao Chun ^[26] pointed that the government should provide the external environment adapting for the synergy innovation. The policy support from the government is the important driving force to push the synergy innovation. The intermediary service organizations are the nodes connecting the innovative agents, the bridges and ties for knowledge flow and technology transfer between the enterprise and the market.

Zhou Zheng ^[25] thought the driving elements outside of the enterprises, the universities and the research institutes alliance is the external driving force to the synergy innovation mostly covering the technology pushing force, the marketing demand pulling force, the marketing competition pressure and the government supporting force. Xu Jing ^[19] considers the motion factors covering the benefit driving, the technology pushing, the market oriented, the technology potential disparity, the capital support and the environment driving power. Tao Chun ^[26] puts forward the knowledge difference causing the knowledge transfer in the enterprises, the universities and the research institutes alliance. The benefit complementary between the university and the enterprise constructs the social driving power foundation and only the synergism between the knowledge potential disparity and the benefit complementary can result in the knowledge transfer in the enterprises, the universities and the research institutes alliance.

3.2 Classification on the Driving Force Sources

The major partners in the synergy innovation are the industries, the universities and the research institutes and the ancillary partners are the government, financial organizations, science and technology service agents form the technology innovation chain and synergy innovation network through the scientific research, the marketing development, the capital, the policy and the information support. The technology pushing force covers new technology mindset inducement, the technology channel, the technology anticipation, the input pushing. The government is the initial pusher in the synergy innovation among the industries, the universities and the research institutes. The government supports the synergy innovation among the industries, the universities and the research institutes on the behavior guidance and the policy motivation. The influencing factors and the pushing mechanism in the knowledge transfer among the industries, the universities and the research institutes put forward the knowledge differentiation with the specific characteristics on the knowledge quantity, quality and structure. There exists the absolute knowledge disparity. The knowledge disparity between the university and the enterprise is the nature driving force to the knowledge transfer among the industries, universities and the research institutes alliance.

3.3 Classification on the Driving Force Attributes

The innovation driving forces can be classified into the pushing power, the pulling power and the hindering power according to the outcome attributes of the enterprise innovation activity from the synergy innovation driving forces' influence. The pulling forces for the enterprises to construct the synergy innovation include the government policy guidance, the administrative protection, the capital support from the financial organizations, the information bridge from the intermediary agents and the knowledge transfer from the universities. The pushing forces cover the enterprise pursuits of the excess profit, the entrepreneur spirit reflection, the enterprise culture nurturing and the organization motivation ^[27].

Every coin has two sides to all the type of elements influencing the synergy innovation driving forces. These elements might have the positive or negative influence to the innovation driving forces as the driving force to the enterprise innovation or the boosting forces to the enterprise innovation. When one driving force is too strong, it can influence the development of the other driving element and then change into the hindering elements.

3.4 Relationship between Internal and External Driving Forces

Innovation is one interactive process. The enterprises seldom rely on the knowledge and resource on their own to realize the innovation singly. All the major partners can work on the innovation of the value chain segments through cooperation to achieve the labor specialization, cooperate on the industrial investment, set up the research & development center, explore the external market and share the synergy achievements. This can

conquer the restriction on the innovation with the complementation on the capital, the technology, the resource, the talent and the brand.

There're close and complicated synergy connection and coherence effects among the external enterprise driving forces on innovation. The internal innovation driving forces also have complicated non-linear effects and connections. There're strong non-linear coupling influence on the external and internal innovation driving forces. The external driving mechanism can enhance the development of the enterprise synergy innovation and the internal driving mechanism can support the improvement of the enterprise innovation mechanism. With the development of the globalization, it's very important to strengthen the interaction of the enterprise internal and external networking to achieve the resource, technology, information and knowledge outside of the network. It can also help acquiring the external information and resource through the internal and external networking interaction in the cluster to maintain the openness and dissipation of the cluster and is good to renew the cluster knowledge avoiding the cluster fossilization and locking.

4. Successful Synergetic Innovation Experience from the Developed Country

4.1 Japan: Dominating Enterprises take the core organizing role

In Japan, most of the synergy innovation are dominated by the big enterprise as the dominating enterprise forming the technology research combination. The dominating enterprise organize the enterprise-enterprise synergy innovation networking with the suppliers, purchasers, competitors and cooperators. The interactive cooperation between the enterprise and the business customer, supply chain enterprise and competitive enterprise can enhance the innovation spillover through the value-added process. The dominating enterprise in the innovation network is responsible for the division of labor cooperation and each performs one's own functions to carry out the new technology research and development in the synergy innovation. All the technologies can't exist singly and their development need the support from the external supporting system. We call the dominating enterprises order parameters and the supporting enterprises external parameters. The quality of the technology product from the external parameters' enterprise can influence the product quality of the order parameters' enterprise. The technology improvement depends mostly on the external parameters' enterprise action to form the interactive symbiosis. The external parameters' enterprise is the important information resource to the dominating enterprise's product development and improvement. The cooperation between the order parameters' enterprise and the external parameters' enterprise can strengthen the enterprise's operation flexibility and marketing adaption, at the same time lower the enterprise operation risk and facilitate the product development and innovation frequency ^[28].

It is more beneficial for the enterprises to develop the core competency and technology resource through the knowledge and technology cooperation between different enterprises achieving the synergy effects. The informal agreements and the formal long term strategic alliance can enhance the gradual innovation in the enterprise. In Japan manufacturing industry, there're stable vertical division and cooperation among the large, medium and small enterprises. The enterprises form the stable mutual trust during the long term trade, and the connection help the order parameters' enterprises provide the adequate innovation incentives to the external parameters' enterprises, and enhance the synergy innovation among the enterprises. There's one mechanism in the Japan manufacturing industry, the order parameters' enterprises are required to define the price reduction and the price reduction period clearly. They don't change according to the productivity of the external parameters' enterprises improve or not. This mechanism can undoubtedly improve the external parameters' enterprises innovation competency and the external parameters' enterprises can gain the benefit from the productivity improvement 100%. The order parameters' enterprises can improve the innovation competency through the cooperation with the suppliers, and then improve the competitive strength.

4.2 Europe Union: Government Push, Industry Association play mediating effect

It is crucial for the government to push the synergy innovation to the important technical projects. Europe Union actively push forward the forming of the "Government-Enterprise-Intermediary agent" synergy innovation network. For example, there're Europe Union R&D framework plan, Eureka plan, Galileo plan and Airbus plan, etc. that are the synergy innovation promoted by Europe Union and multiple Governments. Europe Union construct the public information sharing service platform to support the enterprises to participate in the important technical projects. Under the macroscopic coordination of Europe Union, Europe Union combine the 23 member states and other 300+ partners as Norway, Switzerland, Turkey and China, implement the associated development strategy and form the knowledge alliance on the synergy innovation and provide the free consulting service to all the Europe innovation members and also provide the free information service to the industrial innovation stakeholders.

The Europe industrial associations play important roles in supporting the important projects' synergy innovation. They establish intermediary agents with other governments to form the crisscrossing nodes in the innovation network. The intermediary service organizations can provide the comprehensive service as the bridge and tie for the knowledge flow and technology transfer between the enterprise and the market. The industrial association is very important to play intermediary role in the German enterprises' synergy innovation. The enterprise is required to participate in at least one industrial association regulated in the German law. The association play strong intermediary role to enhance the synergy innovation among the association members. It is mentioned that the industrial associations can play 6 major functions as information exchange, communication cohesiveness, consulting service, knowledge integration, incubation and commercialization. The German industrial associations complement the resource and capability scarcity of the medium and small enterprises' innovation and support these enterprises can keep up with the rapidly changing science & technology and market and also help the enterprise renew the networking connections. The industrial associations emphasize the role of the industrial associations, put forward the innovation policy, influence and canvass the government to provide assisting funds to the industrial associations in the synergy innovation^[29].

4.3 U.S: Government guide Enterprise to play self-organizing in the market

U.S advocates the free competitive marketing economy. The competition between the enterprises is totally free. The innovation is forming through self-organizations' cooperation and collaboration into "Enterprise-Market-Research organization" synergy innovation mode gradually.

It's through the marketing mechanism to mobilize the synergy innovation between the government, research institutes and the enterprises. Especially under the circumstance of capital scarcity in the financial crisis, the cooperation happens frequently between research institutes and the industry and the enterprises with the government guidance and marketing promotion^[30].

The research organizations cover the universities, the research institutes, the colleges and are the carriers for the knowledge creation, the technology production and talents cultivation and the most important innovation source in the enterprises' synergy innovation network. The innovation networking from the cooperation between the enterprises, the universities and the research institutes can lower the trading cost and the networking cooperation risk. It's one effective way to achieve the innovation. The enterprises rely on the market, cooperate and communicate with the research institutes on the frequent, equal and informal basis to enhance the quick flow of the innovation elements and set the keynote for the synergy innovation.

The U.S government constructs the successful guiding mode and acquires successful synergy innovation between two territories as the synergy innovation between the military technology and the civilian technology, the synergy innovation between the universities and the enterprises. The innovation strategy in U.S requires the basic science theory research to be leading in the world and the basic science research is with the universities playing the core roles. U.S government also pushes the achievements from the basic science research into commercialization and industrialization.

5. Results

The ultimate goal of the synergy innovation is to develop win-win cooperative mechanism between the enterprises, research institutes and universities, financial structures, intermediary organizations, upstream and downstream enterprises. We think that the forming of the synergy innovation not only need the higher level cooperation between the enterprise, university and research institute , but also the inputs of other elements as the information linking from the intermediary agents and government policy supporting through the study on the internal and external driving forces to the synergy forces. The driving forces on synergy innovation covers the enterprises' pursuits to revenue and the recognition on the enterprises' sustainable development. We believe that the enterprises can get the substantial development when establishing synergy innovation.

5.1 Supporting to Synergy Innovation Should meet Synergy Innovation requirements

Synergy Innovation can't rush headlong into action and should be supported when meeting the requirements actually. The major conditions for the mega projects of the synergy innovation are with big science character and crossing disciplines. Single enterprise can't complete such tasks. The conditions of the synergy innovation mainly include strong interactive technology, resource integration, management complexity, tremendous investment, high risk. The synergy innovation effect is more obvious as the technology relevancy gets stronger. The synergy innovation also covers the innovation organization, innovation infrastructure, innovation resource and innovation environment. These four elements are interactive. The innovation organization mainly includes the enterprise, research institute, incubator and intermediary agent. The innovation infrastructure can cover the

information network, library, database, public infrastructure. The innovation resources are capital, talent, information, knowledge and patent, etc. The innovation environment can include the policy and law, management system, the general name of the market and service.

Not every elements is the same important to the innovation for the enterprise. The importance of the synergy is different to every enterprises. The most successful companies are those that can set up one strategic topic according to their own characters, and then choose the correct core elements and the synergy combination. One synergy oriented company needs the synergy with higher requirements between R & D, manufacturing and marketing department.

5.2 Government Role to Support Enterprises Realize Self-organization in the Market

The essential conditions to the self-organization are that the system should be the open system, away from equilibrium state and have the dynamic mechanism with the non-linear feedback. There exists mutual competition and cooperation between the enterprises in the self-organizations. These enterprises cooperate together and take hand in hand action orderly to achieve the specific objective.

The enterprises compete freely in the market is to achieve the safety and the stability through the cooperation and the risk mitigation is to actual driving force for the enterprise synergy innovation. The government's function is mainly to protect and guide the direction of the innovation from the perspectives of the system, the environment and the policy through the law, the economy and the organization management to stimulate the synergy innovation between the universities and the enterprises, protect the outcome of the innovation and coordinate the contradiction among the innovation main partners. The synergy innovation combines the enterprise position, the implementation ability, the marketing opportunity and the threat.

It's crucial in the synergy innovation to recreate the new knowledge and new product. It's important to guarantee the synergy innovation with developing effective intellectual property management and specify the property attribution clearly.

5.3 Industry Association, Industrial Alliance and Dominating Enterprises Play Core Role in the Synergy Innovation

Once core power is needed to lead and realize the enterprise synergy innovation. This power can guarantee the holistic and systematic of the synergy innovation. Different countries apply the synergy innovation strategy with different focuses on the basis of their traditional history and realistic predicament. Whatever the enterprise, the industrial association, the industrial alliance, the government or the marketing power as the core element to the synergy innovation, the government should provide good environment and the market can provides the basic agent position to the enterprise. They're the pre-conditions to the synergy innovation. It is more realistic to follow the actual demand of the innovation and the industrial association, the industrial alliance and the enterprise can take the core role to the enterprise synergy innovation respectively.

Europe Union and U.S encourage the industrial association and the industrial alliance to lead the enterprise synergy innovation. Japan enterprises make the imitation and system innovation to enhance the synergy innovation upgrading the holistic technology. This approach can help implement with the holistic mode from the beginning, form the whole innovation linking all the innovation technology and establish the new industry enhancing the technology innovation and industrial upgrades in the short term.

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Characteristics of Legal Entity Universities in Indonesia by the Output Achievements and Effectiveness of Performance

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Abstract

The aims of this study were to find out about the characteristics of legal entity universities based on output indicators that achieved by the universities, to find out the characteristics of legal entity universities based on the performance affectivity achieved by the universities, and to analyse the relationship between budgeting and human resources quality on influencing the performance of legal entity universities. The method in this research is to use biplot analysis in view the characteristics of universities based on the achievement of outputs and effectiveness of its performance. As for the relationship between the budget and human resources of the universities performance using correlation analysis. The results of biplot analysis showed that the universities have different characteristics based on the number and effectiveness of the output achieved. Based on effectiveness, some universities have higher effective than other universities. Correlation analysis between the budget and human resources of the achievements of the output has a positive correlation with output achieved by the university.

Keywords: budgeting, effectiveness, legal entity, performance

1. Introduction

The increasing of the world globalization along with science and technology development took its own effect for the whole aspects of life, including in Higher Education. Globalization phenomena in the field of Higher Education is irresistible and has been processing in application of Higher Education in Indonesia at the present. Higher Education globalization is expected that the graduates of Higher Education in Indonesia could be compete in the global market, besides in the Free Trade of ASEAN (Association of Southeast Asian Nations) countries, so that the Higher Education in Indonesia is demanded to produce the graduates who have competitive ability with other countries. Refers to the international competitive ability, according to "World Economic Forum" in "The Global Competitiveness Report 2014-2015" that Indonesia is in the position 38 of 148 evaluated countries.

In the specified details of the evaluation indicator pillars, that one of the evaluated pillars is Higher Education and Training. The evaluation result of the Higher Education and Training pillar is Indonesia still at the position of 61. It should become consideration for all of the responsibility holder of Higher Education in government, Higher Education, and the society. By the Higher Education is expected that bale to create qualified human resources in the scientific aspect and social morality, in nationally or internationally. The research of Morote (2001) obtained that Higher Education and economic development have positive mutualism relationship, and also between Higher Education and manpower stages. According to Zhang (2006), Echevarria (2009), Keller (2010), and Shin (2012) explained that Higher Education has an important role in economic growth and territory development in globally context, especially for the developing countries. The importance of the role of universities in improving and strengthening the nation's economy, especially in the development of the stock exchange as suggested by Tanjung et al. (2014) that the need to develop more stock exchange corner programs in each university campus. One of the efforts to increase the quality of Higher Education is education autonomy,

however according to Swaine (2012) that education autonomy is not the only way to solve the problems if it is not comparable with society development in the education surroundings which have tough moral characters to think step forward in the society. The same study on university autonomy carried out by Kreysing (2002) in Germany which raised the autonomy, accountability and organizational complexity in higher education. The study takes a case study in one of the universities in Germany, namely the University of Goettingen. The main aspect is a major issue in the study is the issue of financial autonomy and organization. It is against the backdrop of ideas managerialism new era that believes in improving the competitiveness of the independent management policies should be strengthened college where the traditional university system in Germany the entire system is controlled by the state. Then Mitsopoulos and Pelegidis (2008) conducted a comparison of academic and financial autonomy of universities in seven European countries. The result is a positive correlation between the autonomy granted to academic efficiency, the number of scientific papers produced, and the number of publications are cited by other researchers. In connection with efforts to improve the competitiveness of universities according to Ambarita (2010) is with higher education by granting broad autonomy and authority to regulate itself.

In producing the qualified Higher Education, Indonesia government has arranged a regulation which organize system management of Higher Education particularly, and for that issue the Act Number 12 Year 2012 concerning Higher Education is arranged and published. On the Act, it is say that one of the ways to increase the Higher Education quality is by the autonomy of Higher Education. The implementation of Higher Education autonomy is given selectively based on the evaluation performance by the Minister to state universities by applying financial management system of Public Service Entity (BLU) or arranging the legal entity universities. In particular for the legal entity universities, there are 11 state universities which have legal entity status at the present, although 4 state universities are still in the transition phase, namely Sepuluh November Institute of Technology, Diponegoro University, Hasanuddin University, and Padjadjaran University. And since 2015, other 7 state universities are getting the legal entity status and in 2014 they were passed through the transition process, they are Bogor Agricultural Institute, Bandung Institute of Technology, Airlangga University, Gadjah Mada University, University of Indonesia, Indonesia University of Education and University of Sumatera Utara.

The state universities which have legal entity status especially the seven universities above are considered as higher education which have better quality than other state universities because the legal entity universities is expected oncoming to the World Class University by our government. Refers to Altbach (2004), World Class University is a university which has prime level in the world with international standardization of excellent. The excellent are included excellent in research that admitted by international academic community by international publications, excellent in high quality and the best teaching staff in their own fields, excellent in academic liberty and intellectual enthusiasm, excellent in management, sufficient facility for academic activity, such as comprehensive library, sophisticated laboratory, and sufficient funding that support the learning and teaching process and also for research. And the other important thing is excellent in international cooperation, whether in academic program, research, and others. With the enthusiasm of Higher Education to attain the World Class University caused the increase of their quality indirectly. However, in fact, the levelling result that published by Ministry of Research, Technology, and Higher Education that some of the qualified legal entity of state universities do not get better level properly than the other evaluated universities. Afterwards, from the aspects of international publication indexed by Scopus, the problem is similar to the levelling result above. For instance, it is necessary to evaluate the performance effectively that attained by the legal entity universities and to monitor all the factors that related to its performance.

1.1 Research Question

Universities that have legal status, especially the seven state universities seen as universities that have better quality compared to other universities, state universities especially the legal entity shall be supported and encouraged by the Government towards World Class University. However, on the rating issued by Ministry of Research, Technology, and Higher Education, there is legal entity universities ranked still under the universities considered not as legal entity universities. Then when seen from international scientific articles indexed by Scopus encountered the same issue with the ranking results. Based on the above background, as for the formulation of the problem to be solved by doing this research are:

- 1) How the characteristics of legal entity universities based on the output indicators that achieved by the universities?
- 2) How the characteristics of legal entity universities based on the performance affectivity achieved by the universities?

3) What is the relationship between budgeting and human resources quality on influencing the performance of legal entity universities?

1.2 Research Objectives

1) To find out about the characteristics of legal entity universities based on output indicators that achieved by the universities.

2) To find out the characteristics of legal entity universities based on the performance affectivity achieved by the universities.

3) To analyse the relationship between budgeting and human resources quality on influencing the performance of legal entity universities.

2. Methods

This research is a descriptive research that is a research for describing a particular condition based on the observed phenomena and indication. In this case, the descriptive concern about the performance result, processing, and output of universities in the seven legal entity universities above. This research used quantitative approach, where the approach is observe the characteristics of legal entity of universities based on performance affectivity that achieved towards the budgeting of legal entity universities, and also to find out the influence of budgeting and human resources quality for the performance of legal entity universities. This research was using some output indicators that are:

- Quantity of scientific articles indexed by Scopus
- Quantity of researches
- Quantity of public services
- Quantity of patent rights
- Quantity of majors in accreditation level A
- Quantity of majors in international accreditation
- Quantity of international students
- Quantity of international achievements
- Quantity of cooperation income

2.1 Performance Affectivity

Performance measurement is an essential part of the management control process, both public and private organizations. However, due to the characteristics of the different public sector organizations with the private sector, the emphasis and orientation measurement of performance was there a difference (Mahmudi, 2005). Performance measurement in particularly educational institutions has become a very important thing to be done by each of these institutions and government in conducting surveillance. This is consistent with the findings made by Yang (2015) in the country of Taiwan on the performance of educational institutions that have become a hot issue that arise where in the Asian countries a lot of autonomy to the universities so that universities move toward scientific management and emphasizing the performance of the organization effective and efficient. Asad and Mahfod (2015) argues that the measurement of performance management for universities as an important part in enhancing the effectiveness of the performance of academicians in universities. measuring the performance of the public sector is very important, one of the purposes assessment of performance in the public sector is the Knowing the level of achievement of the objectives of the organization, provides a means of learning employee, Improving the performance of the next period, giving consideration systematically into decision making reward and punishment, motivate employees, and creating public accountability.

According to Wibowo (2014), it is necessary to measure the performance to find out deviation of determined plans during the performance implementation, or whether the performance can be done in appropriate in the determined schedule, or whether the performance results have been achieved as expected appropriately. To carry out the measurement, it is needed the ability to measure performance so the presence of performance standardization is necessary. The performance evaluation can be held to the real and measurable performance. One of the performance standardization is by trending performance measures. Trending performance measures showed how the performance trend all the time, that comparing with the activities, results, or achievements, and baseline standardization that have been determined before. This performance standardization showed that the trending during certain period to the baseline, it can be increase or decrease are varied.

In the relationship of performance measurement in universities then if it seen from the achieved output in certain years compared with the achieved input, in this research the accepted input by universities is the accepted budget of universities from the government and other education income (Donation of Education Establishment from Students (SPP)). The measurement of performance affectivity is described as follows:

$$\text{Performance} = \frac{\text{the achieved output in year t}}{\text{University budget in year t}}$$

2.2 Biplot Analysis

According to Gabriel (1971) biplot is a method uses in multivariate analysis to describe the element of line and column matrix in one graphic. Biplot analysis is a method to extend the visual evaluation graphically from data X matrix in a plot by combine the X matrix line vector that describing the objects with vector representing the X matrix column that describing the variable. Biplot analysis is based on the Singular Value Decomposition of a matrix. Singular Value Decomposition of a matrix is a basic theorem that uses in matrix calculation. The using of SVD because it is more efficient in computerized to producing the main and second of component scores, and it give the additional understanding about main component.

There are some information of biplot (Matjjik & Sumertajaya 2011), that are:

1) The proximity among objects

The proximity of location of two objects is interpreted as the similar characters of two objects. The closer of the location of two objects, the more similar of the characters that showed by the variables values.

2) Variable Variety

The length of variable vector is proportional to the variety of the variable. The longer the vectors of a variable, the higher the variety of the variable.

3) Relationship between variable

The value of angle cosine between two variable vectors are describing the correlation of two variables. The narrower of the angles that made between two variables, the more positive of the high correlation (<90). If the angle is made in perpendicular shape then both of the correlation are low (=90). While if the angle is obtuse then the correlation is negative (>90).

4) The variable value of an object

The position of the object in the same line with a vector variable is interpreted as the amount of the object in the same line with it. The closer the position of object with the line that appointed by a variable, the higher of the variable to the object. Meanwhile if the line of the objects are opposite each other, then the value is low.

According to Mattjik and Sumertajaya (2011), biplot is a method to make image in many dimension space become space in two dimensions. The reduction of dimension caused the decreasing of information in biplot. Biplot is able to give the information about 70% from the whole information is considered adequate. In this research, biplot method is using to analyze dimension and attribute of legal entity universities toward output indicators that achieved by legal entity universities based on the quantity of achievements or the affectivity.

2.3 Correlation Analysis

Correlation analysis is data analysing of research aimed to find out the capacity or the form of relationship line between two variables and the amount of influence that caused by the one variable (free variable) towards other variable (bound variable) (Siregar, 2014). If $(X, Y) = \{(X_1, Y_1), (X_2, Y_2), \dots, (X_n, Y_n)\}$ is pairing observation of measured n model in measuring two variables X and Y, correlation between measuring two variables X and Y is classified as:

$$r = \frac{\sum(x_i - \bar{x}) \sum(y_i - \bar{y})}{\sqrt{\sum(x_i - \bar{x})^2 \sum(y_i - \bar{y})^2}}$$

The correlation value X and Y in value of 0 showed that there was no correlation between them. The amount of the value of Variable Y is free, unbound with the amount of value of variable X; as well as the value of variable X is free, unbound with the amount of the value of variable Y. If the high value of variable X is associating with the high value of variable Y, and the low value of variable X is associating with the low value of variable Y, then X-Y correlate positively and the correlation value is about 0 and 1. If the high value of variable X is associating with the low value of variable Y, and the low value of variable X is associating with the high value of variable Y,

then X-Y correlate negatively with the value of the correlation is between 0 and -1. The higher correlation value of X-Y, then it is closer in the value of 1 or -1, and the closer the attachment of value of variable X and variable Y (Saefudin, *et al.*, 2009). This study used correlation analysis where the variable X is the percentage of Doctorate Degree Lecturers, the percentage of Professor Lecturers, Government Funding, and the Community Funding from Donation of Education Establishment from Students (SPP). Variables Y used in this study is an indicator of the performance achieved by legal entity universities, namely quantity of scientific articles indexed by Scopus, quantity of researches, quantity of public services, quantity of patent rights, quantity of majors in accreditation level A, quantity of majors in international accreditation, quantity of international students, quantity of international achievements, and quantity of cooperation income. The attachment level and correlation capacity can be seen in the Table 1.

Table 1. Correlation Level and Relationship Capacity

No	Correlation Value (r)	Relationship Level
1	0,00 – 0,199	Very weak
2	0,20 – 0,399	Weak
3	0,40 – 0,599	Adequate
4	0,60 – 0,799	Strong
5	0,80 – 0,100	Very Strong

Source: Siregar (2014)

3. Results and Discussion

3.1 Results

Generally, universities have special characteristics which are the added values for them in community. The excellence in particular fields are become good marketing strategy to interest new students and cooperation with industry. Even so the legal entity universities that generally each university has its own special characteristics. By biplot method as shown on Figure 1, that it can be seen the characteristics of legal entity universities toward their total output that achieved.

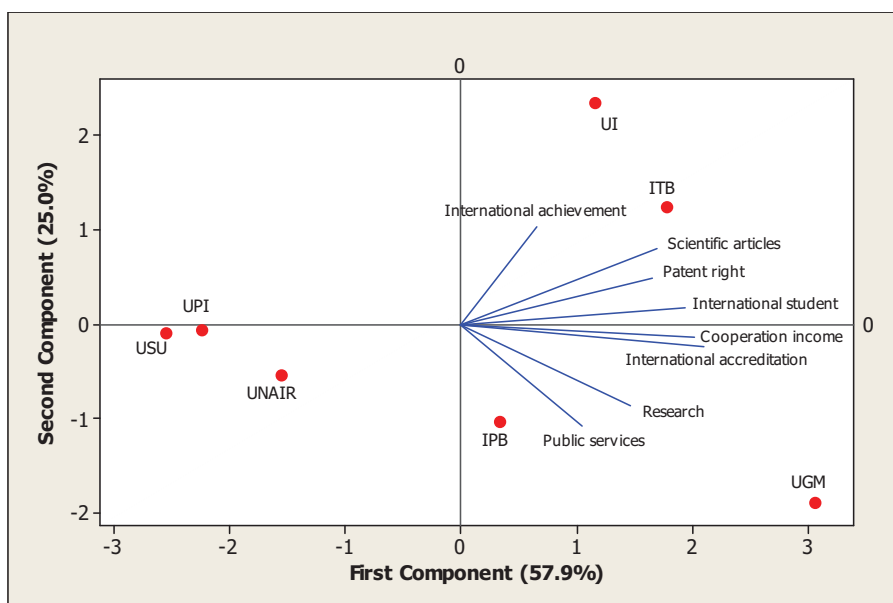


Figure 1. University output indicators by biplot method toward the seven legal entity of universities

In Figure 1, the variety of data can be explained in the amount of 82.9%, with the first component is 57.9% and

the second component is 25.0%. Therefore, the resulted biplot of the data is quite good and represented the characteristics of the population as the criteria that suggested by (Matjjik & Sumertajaya, 2011). The analysis results showed that relative proximity between legal entity universities and relative position of legal entity of universities toward output indicators that achieved by universities.

The affectiveness that conducted in this research is to observe the ratio between the achieved output and the total budget given by government and added with income from donation of education establishment in universities. Globally, the mapping of affectiveness level on each legal entity of universities can be described in biplot analysis in Figure 2.

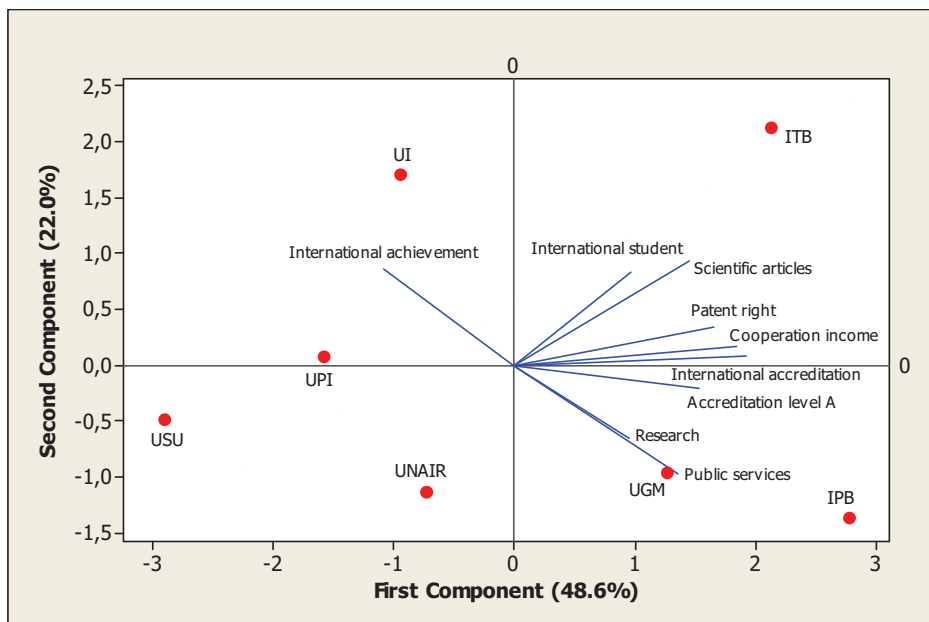


Figure 2. Biplot of performance affectivity towards total of government funding and SPP income

In the Figure 2, varied data can be explained in 70.6% with the first component is 48.6% and the second component is 22.0%. Therefore, the resulted biplot on the data is quite good and could represented the characteristics of the population.

One of the main factors that considered having relation to output achievement of the universities is the amount of budget that obtained by legal entity universities. One of the biggest and continuity budgeting that accepted by universities are from the government and donation of education establishment from the students. Besides, human resources in universities are also have substantial relationship to the performance achievement. Identically, human resources in universities are lecturers and refers to the research of Apriani (2009) that there is an intense correlation between the competency of lecturers and the affective implementation of university’s “Tridharma”. The relationship between budgeting and human resources quality toward the performance is in the Table 2.

Table 2. Correlation between budgeting and human resources quality toward the performance

		%Doctorate Degree Lecturers	%Professor Lecturers	Government Funding	Community Funding
Accreditation Level A	Correlation	.546	.632	.109	-.181
	Sig. (2-tailed)	.043	.015	.711	.535
Patent Rights	Correlation	.678	.462	.095	-.285
	Sig. (2-tailed)	.008	.096	.748	.324
Publication indexed by scopus	Correlation	.791	.574	.469	.103
	Sig. (2-tailed)	.001	.032	.090	.725

Services	Correlation	.423	.652	.121	-.153
	Sig. (2-tailed)	.132	.012	.681	.601
International Students	Correlation	.437	.324	.774	.514
	Sig. (2-tailed)	.118	.258	.001	.060
Researches	Correlation	.122	.242	.503	.134
	Sig. (2-tailed)	.678	.405	.067	.649
Cooperation	Correlation	.916	.609	.338	-.265
	Sig. (2-tailed)	.000	.021	.237	.360
International Accreditation	Correlation	.738	.833	.708	.314
	Sig. (2-tailed)	.003	.000	.005	.274
International Achievement	Correlation	-.222	-.310	-.154	.268
	Sig. (2-tailed)	.446	.281	.598	.355

3.2 Discussion

In the Figure 1, analysis results showed that relative proximity and relative position between legal entity universities toward output indicators that resulted by the universities. In the figure can be seen that:

- 1) The proximity between legal entity universities that having same characteristics relatively, they are Sumatera Utara University, Indonesia University of Education, and Airlangga University. The similar characteristics also can be seen in University of Indonesia and Bandung Institute of Technology. While Bogor Agricultural Institute and Gadjah Mada University are relatively have not adjacent with other universities.
- 2) In terms of the total achievement that resulted as a whole can be seen in Gadjah Mada University that having the highest achievement than other universities. The highest achievement are output of researches and community services. Meanwhile the lowest achievement is occurred in Sumatera Utara University, Indonesia University of Education, and Airlangga University. In Bogor Agricultural Institute, the highest achievement occurred for the community services, whereas in University of Indonesia and Bandung Institute of Technology the highest achievement are for the output of international achievement and publications indexed by Scopus.
- 3) The correlation in each output indicators that resulted by universities relatively have high correlation, unless for the output of international achievement that have not any correlation with the research output and community services because its show the angle of 90 degree or more. The highest correlation is shown by the smallest angle between the outputs, which is in the output of cooperation approval and the total of majors that nationally accredited minimum in level B. The small angle relatively also occurred for the output of the number of majors that nationally accredited minimum in level B and international accredited majors.
- 4) The length of resulted vectors showed that the variety levels of the resulted output achievement. The longest vectors occurred for output achievement of the number of international accredited majors. It is showed that there are universities which have many majors are in international accreditation, but in the other hand, many majors in other universities are not.

Meanwhile, in Figure 2 showed the mapping of legal entity universities toward output affectivity that achieved by the universities. The analysis results showed that the relative proximity and the relative position between legal entity universities toward the affectivity of output indicators that resulted by the universities. In the figure can be seen that:

- 1) The proximity between legal entity universities that relatively have same characteristics based on the affectivity that are Sumatera Utara University and Indonesia University of Education. The similarity of characteristics also can be seen in Gadjah Mada University and Bogor Agricultural Institute. Meanwhile, Bandung Institute of Technology, University of Indonesia and Airlangga University have not adjacent to other universities.
- 2) In terms of the overall output affectivity achievement, it can be seen in Bogor Agricultural Institute, Bandung Institute of Technology and Gadjah Mada University, its have the highest achievement between other universities. The low affectivity achievement relatively occurred in Sumatera Utara University and Indonesia

University of Education. Generally, University of Indonesia and Airlangga University have level of the performance affectivity is as high as Bogor Agricultural Institute, Bandung Institute of Technology, and Gadjah Mada University, but University of Indonesia has the highest achievement of affectivity that occurred in the number of the output of achievement in international competition.

- 3) Correlation on each affectivity output that resulted by universities relatively has high correlation, unless in affectivity of the number of achievement in international competition that have not any correlation with the other output of affectivity because it showed angle in more than 90 degree. The highest correlation showed by the smallest angle between output of affectivity, which is on output of researches and community services. The small angle also occurred on the affectivity output of cooperation approval and the number of patent rights.
- 4) The length vector that resulted is shown by the variety level on achievement of the affectivity output. The longest vector is on the achievement of the number of majors in international accreditation. It showed that there are international accredited majors in the universities, however on the other side, there many universities even have not majors in international accreditation.

The relationship between budgeting and human resources quality toward the performance as can be seen on Table 2 (with alpha 10%), it showed that the percentage of doctorate degree lecturers have positive relationship to the number of majors in accreditation level A (Sig. 0.043) in quite strong attachment that is in amount of 0.546, the number of patent rights (Sig. 0.008) in strong attachment that is in amount of 0.916, and the number of major in international accreditation (Sig. 0.003) in strong attachment in amount of 0.738. The result is shown by the variable of the percentage of professor lecturers has positive relationship toward the number of majors in accreditation level A (Sig. 0.015) in strong attachment in amount of 0.632, the number of patent rights (Sig. 0.096) has quite strong attachment in amount of 0.574, the number of community services (Sig. 0.012) has strong attachment in amount of 0.652, the total of cooperation (Sig. 0.021) has strong attachment in amount of 0.609, and the total of majors in international accreditation (Sig. 0.003) has very strong attachment in amount of 0.833.

The results of correlation analysis for government funding that accepted by legal entity universities toward the performance have positive relationship to the number of publication (Sig. 0.090) has quite strong attachment that is 0.469, the number of international students (Sig. 0.001) has strong attachment that is 0.774, the number of researches (Sig. 0.067) has quite strong attachment in amount of 0.053, and the number of majors in international accreditation (Sig. 0.005) has strong attachment in amount of 0.708. Meanwhile, the analysis results of correlation to community funding that accepted by legal entity universities toward their performance is related positively only on the number of international students (Sig. 0.060) that has quite strong attachment in amount of 0.514.

4. Conclusion and Implications

4.1 Conclusion

This research showed that each legal entity universities have different characteristics based on the output that achieved by universities. While, based on the achieved of output affectivity toward the accepted budget showed that there are legal entity universities namely Sumatera Utara University and Indonesia University of Education that their performance is relatively low compared to other legal entity universities. However, some legal entity universities namely Bogor Agricultural Institute, Bandung Institute of Technology and Gadjah Mada University showed good performance in general than other legal entity universities. Although University of Indonesia not showed good performance yet than other legal universities but it has higher affectivity level in international achievement than other legal entity universities.

The result of correlation analysis showed the positive relationship among the budgeting and quality of the lecturers toward the performance that achieved by legal entity universities. The attachment among variables is between quite strong up to strong among the variables.

4.2 Implications

Based on the analysed research results, it has been found some of output achievements and the affectivity are decrease in quite high value. It is necessary to become the attention for universities and government. The next below is the implication of research result that can be a consideration for government (the Ministry of Research, Technology, and Higher Education) and legal entity universities.

a. Government

- 1) Carry out the intense evaluation towards the achievement of legal entity universities, not only in total aspect but also in affectivity aspect that related to the used budget.
- 2) The funding by the government has positive relationship to the resulted achievement of legal entity universities. Because of that, guarantee from the government on funding aid to legal entity universities is necessary.
- 3) The consolidation of regulation that protected the legal entity universities, so that program implementation of universities are not obstructed with law consequences that occurred.

b. Legal Entity Universities

- 1) Programs improvement to improve the resulted output achievement as responsibility to government and community, both in total aspect and affectivity aspect.
- 2) Focus on main competency of each university, so that the achieved results are more optimal.
- 3) Competency among lecturers has positive relationship to the resulted achievement by legal entity universities. So, the continuity of programs is necessary to develop the competency of lecturers.

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Natural Disaster Mitigation through Integrated Social Learning Science in Primary School

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Abstract

This research aims to develop a learning model in disaster volcanic eruptions, floods and earthquakes integrated in social science subjects and in elementary school level. This learning model includes five features, namely: (1) the model syllabus and lesson plans, (2) the theme and subthemes, (3) teaching methods, (4) materials / textbooks and CDs about the disaster of nature, and (5) techniques and types assessment of student learning outcomes. Improving the knowledge and skills of teachers and students about the concepts, principles and practice self-rescue if the occurrence of natural disasters. This study is a research and development (R & D) in elementary school. This type of data consists of qualitative and quantitative data. Exploratory data analysis results based disaster mitigation model of learning is conducted qualitatively by descriptive percentage. Analysis of empirical test data using descriptive statistics percentages. Data were analyzed with the results of the implementation of parametric statistical tests, descriptive of the samples using a t-test. Research shows that learning device development results declared effective because it proved able to increase disaster mitigation skills of students, student learning, and the comfortable to be applied at primary school level.

Keywords: disaster mitigation, disaster learning, integrated social science

1. Introduction

In geological, climatological and geographical, Indonesia is prone to disaster. There is a significant increase in natural disasters in Indonesia compared by the previous year. This disaster makes a wide variety of losses and changes the environment. The IPCC concludes that regional changes in temperature have an effect on natural environment (Kurniawan, 2009). Global warming may cause a tropical cyclone and increase bad weather (Goebbert & Leslie, 2010). Indonesia is one of countries which is located in the danger zone of disaster. The geographical position of the Indonesian archipelago which is very unique cause Indonesia include in areas that are prone to disasters. The Indonesian archipelago including the pacific ring of fire (a row of volcanoes Pacific), also located at the confluence of three tectonic plates of the world and affected three movements, which are: the movement Sunda system in the western part, the movement system of suburbs of East Asia, and Australia circum movement. These factors led Indonesia to be prone to natural disasters such as volcanic eruptions, earthquakes and volcanic eruptions (Oktarina, 2008).

Merapi Mount is one of the volcanoes in Indonesia which has a great potential danger when the volcano erupted. Merapi eruptions followed by big losses. Losses caused by the eruption of Mount Merapi is very diverse, ranging from material losses to victims, the harm caused by the eruption of Mount Merapi is very diverse, ranging from the loss of material to the victims. Based on data from the National Agency for Disaster Management (BNPB) in 2011, when Merapi erupted it causes many death victims, as many as 374 victims and the number of refuse as many as 279.702 inhabitants while the loss after the eruption of cold lava in Magelang District led to 2,836 residents displaced and 286 houses were damaged and washed away by the brunt of lava cold. In addition, the Merapi eruptions also cause the activities of people around the slopes of Mount Merapi became paralyzed. Mount Merapi is located on the border of two provinces, Central Java and D.I. Yogyakarta. Magelang is an area which located on Merapi eruption danger zone.

The eruption of Mount Merapi caused deep concern about the disaster that befell the people in the district of Magelang, Sleman and surrounding areas. Seeing the losses caused the eruption of Mount Merapi is not small, it is necessary to mitigate the eruption of Mount Merapi to reduce such losses. The number of disaster-prone areas

in Indonesia and the increased importance of disaster risk reduction efforts is a strong foundation for Indonesia to jointly undertake disaster risk reduction efforts by integrated and focused way. As educators, the research team will contribute in increasing public understanding of the disaster, public understanding will focused on understanding the catastrophic volcanic eruptions, floods, and earthquakes through integrated social science learning in subjects materials in primary school. The model which will be developed is a learning model integrated social science disaster. Teacher transfers information and knowledge to the students and the civilization. Teachers as one component of society have a strategic role to prepare young people from an early age to better understand about natural disasters. The concept of this natural disaster will be easily understood if it explained by using an integrated learning model of social science, such as the integration between science and society. Learning model is packaged and integrated into the school curriculum and implemented at school level basic because of several reason: (1) the results of education are durable and long-term, (2) reaching populations large enough for the nation's future, and (3) it is very appropriate time to seed values and moral social to students.

The problem which studied in this research is: "How does learning model integrated disaster social science in primary school?" Of these problem can be formulated several research questions as followed: (a). What is themes and sub-themes which can be developed in the curriculum integration of disaster volcanic eruptions, floods and earthquakes?, (b). How to develop a syllabus and lesson plan on disaster learning model integrated social science in primary school? (C) What forms of teaching materials on disaster learning model integrated social science in primary school? (D) What forms and assessment techniques that can be used to determine the success of social learning model integrated disaster science in primary school? (E) How appropriate the learning model which developed with empirical data in the field?

The main objective of this study was to develop a mitigation model of natural disasters through an integrated social science disaster learning in primary schools. The specific objective is: a. Develop learning model disaster volcanic eruptions, floods and earthquakes is integrated in the subjects of science and social. This learning model includes five features, that are: (1) the model syllabus and lesson plans, (2) the theme and subthemes, (3) teaching methods, (4) materials / textbooks and CDs about the disaster of nature, and (5) techniques and types assessment of student learning outcomes. b. Improving the knowledge and skills of teachers and students about the concepts, principles and practice self-rescue in case of natural disasters. c. Increase collegiality between lecturers and teachers as well as teachers to teachers in teaching material.

Every citizen has an equal right in education services, including students in disaster-prone areas. Providing services for student learning in areas prone to flooding would have been different with the students in a safe area. In order to undertake the management of disaster mitigation and appropriately, students in disaster-prone areas need to get learning about the natural disaster. One of learning model that can be developed is to integrate disaster material into lessons. Thus, the core curriculum does not need to be changed, do not need to create new subjects, but simply by integrating natural disaster material into social and science subjects.

Society needs to increase its capacity as residents living in disaster prone areas, to know and understand the level of potential disasters, shape and great strength of disasters that might occur. Disaster mitigation through learning, can be used to educate public to face natural disasters in the future. These activities can be started with the provision of information on potential natural disasters precise, accurate of the whole apparatus and related disciplines. By knowing these things, people are mentally better prepared to cope with disasters.

2. Methods

2.1 Design Research

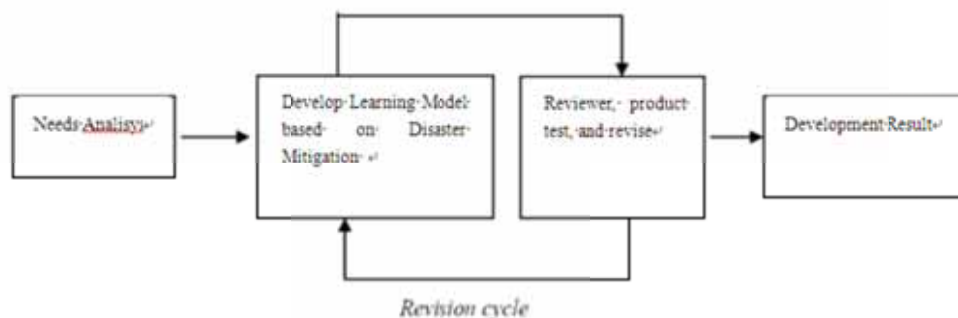


Figure 1. Development Learning Model-Based Disaster Mitigation. (Rusilowati et al., 2012)

This study is a research and development (R & D) carried out in collaboration with the teachers in primary schools. The study design is shown in Figure 1.

2.2 Stage Research

The research was conducted in three stages, that are: (1) exploration theoretically and reviewing from experts and stake holder of the five features instructional model disaster social sciences integrated, such as: the syllabus and lesson plans, themes and subthemes, learning methods, techniques and types of assessment across cultures, and textbooks. (2) empirical test, which aims to validate empirically fifth feature natural disaster learning model that integrated in social science learning. (3) The implementation phase which aims to implement the model, to determine the effectiveness of the model, and obtain the learning model that has been tested.

2.3 The Test Product

Experiments intended to determine readability teaching materials, learning scenarios (in lesson plans), and the characteristics of the evaluation tool and question item. In addition, to determine the amount of time required to complete each learning theme and tests which are planned. Thus, the model teacher and tests maker can estimate the amount of time and number of the corresponding question.

1. Design of Experiments

The product development is carried out in two stages, that are the individual test and field test. Individual Test: first by experts and studies teachers. Both apply to some teachers and students (5-10 people). Field test was conducted in a model school (1st class). Design trialling draft model can be seen in Figure 2.

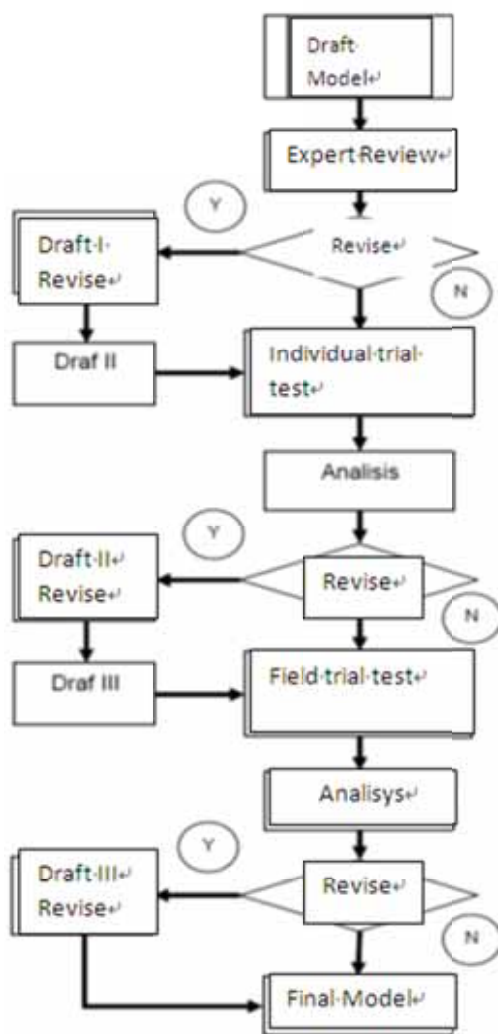


Figure 2. Trial Design

2. Subject Tests

Based on consideration of geographical and historical disaster, Yogyakarta is declared as an empirical test location about the learning model in volcano erupts disaster, floods and earthquakes. Individual test subjects are experts and practitioners (3 teachers), while the subject of a limited field trials are few teachers and primary students. Subject field trials are elementary school students. The technique of taking the subject field trials by purposive and cluster sampling. The number of schools being used as a test subject and implementation are four schools, two primary school in disaster-prone area of volcanoes and two primary schools in region prone to earthquakes and volcanic eruptions in Yogyakarta.

3. Data Type

This data type obtained from the trial test product which there are two kinds: qualitative and quantitative data. Qualitative data got from expert response, and quantitative data got from student respond (score) tested.

4. Instruments Data Collectors

Instruments that used in this test are observation sheets, questionnaires and tests. Observation sheet to determine the enforceability of learning model, the activities of teachers and students. The questionnaire addressed to teachers to determine the suitability of materials with students development, learning scenarios readability and conformance tests with the purpose of learning. The questionnaire also addressed to students, which purpose to know about the readability and instructional materials. Test developed form is multiple choice, with four answer choices, and descriptions.

5. Data Analysis Techniques

Data analysis techniques used to answer the research problem. Data analysis exploratory results of learning model based disaster mitigation is done qualitatively with the help of descriptive percentage. The analysis of the empirical test data using descriptive statistics percentages. Data of implementation were analyzed by parametric statistical tests, descriptive of the samples using a t-test.

$$t = (X - \mu_0) / (s / \sqrt{n})$$

X is the average score, μ_0 is hypothesized value, s is standard deviation, and n is the number of sample. Learning outcome is determined by the formula Gain normalized.

$$G = \frac{\text{skor posttest} - \text{skor pretest}}{100\% - \text{skor pretest}}$$

NB: pretest and posttest scores in percentages.

6. Product Quality Standards Research

There are five features of the development model of mitigation of natural disasters resulting from this research. Quality standards for each feature is determined as follows:

- 1) The results of an syllabi and lesson plans assessment are minimum good in both categories
- 2) Themes and sub-themes are minimum good in both categories
- 3) Teaching materials on disaster mitigation and CD-based learning has a readability level easily understood (legibility coefficient > 0.3), and easy to use
- 4) evaluation tool should be reliable (the price of $r \geq 0.7$), valid, has a medium difficulty level (with the index level of difficulty from 0.3 to 0.7), and different power good (with a different power index ≥ 0.3). In addition, the results of the implementation of the model is expected to increase students' understanding of the material of natural disaster. Standards of learning achievement of the objectives set out as follows: the acquisition of each individual score ≥ 65 and the percentage of classical completeness is $\geq 85\%$ of students have achieved a score of ≥ 65 .

3. Results

The implementation phase of learning tools that have been developed can be described as follows:

Disaster mitigation in learning activities students are expected to do or have disaster mitigation skills, because that learning model is packed learning through observation, discussion, presentation and simulated natural disaster. Disaster mitigation skills of observation results can be seen in Table 1.

Table 1. Students Disaster Mitigation Skills

No	Aspects of disaster mitigation skills	Frequency students who making aspect Disaster Mitigation Skills	
		Class	
		experiment 1	experiment 2
1	Immediately out of the building in case of earthquake	24	24
2	Protect head when they ran out of the building	15	17
3	If the shelter under a table did not get out	18	22
4	Choosing the outdoors, avoid electric poles, billboards, and did not stop at the bridge	21	24
5	Ran away from the mountain and hot clouds	20	20
6	Protect eyes with sunglasses from volcanic ash	18	22
7	Ran to the emergency room / location that is safe from the eruption	19	20
8	Using a mask when leave home	23	24
9	Stay away from the beach when there is a warning of tsunami	24	24
10	Invite friends and other people around to stay away so as not many victims	10	26
11	Prioritizing own soul and the family rather than possessions	23	24
12	Helping family, friends and anyone who is a victim of the disaster ends	16	17

The results of the implementation of learning tools on disaster mitigation impact on improving student learning outcomes that can be seen in Table 2.

Table 2. Calculation Results Improved Learning Outcomes

Class	Pre Test	Post Test	Gain	N gain	criteria
experiment 1	52,56	71,74	47,44	0,40	Medium
experiment 2	54,76	74,03	45,24	0,43	Medium
control 1	49,80	62,00	50,20	0,24	Lower
control 2	51,50	64,40	48,50	0,26	Lower

To determine whether a learning tool in disaster mitigation appropriate to be implemented in the learning, an accuracy of the learning questionnaire distributed to the students and direct interviews teachers in schools. Results calculation of accuracy questionnaire is given to the students' learning can be seen in Table 3.

Table 3. Results of the questionnaire calculation accuracy learning

No	Score	Criteria	Experiment 1		Experiment 2	
			\sum student	%	\sum student	%
1	17-20	Very precise	11	32,35	12	35,30
2	13-16	precise	18	52,95	20	58,82
3	9-12	Less precise	5	14,70	2	5,88
4	5-8	Not exactly	0	0	0	0
		Total	34	100	34	100

Based on these calculations, it means that the device is appropriately applied to disaster mitigation learning in class because > 80% of students give positive response to the disaster learning integrated social science.

Meanwhile the results of interviews researchers to classroom teachers in school are learning devices accordance with the competence (of interest) to be achieved and the students' characteristics, coherent, easy to applied in learning, practice to use, and can increase the skills of disaster mitigation and improve student learning outcomes.

Teachers did not face significant obstacles when they implemented learning model in classroom, obstacles arise precisely from students because they are not familiar with this kind of learning. Constraints of students only occurs at the beginning after that learning activities teachers reveal students who originally confused already can follow the lesson well, so that learning becomes interesting and be active learning for student. In addition to disaster mitigation skills learned in the implementation of the results, this study also conducted observation of student activity. Results of activity observation of students in disaster mitigation can be seen in Table 4.

Table 4. Calculation Results Percentage of Each Activities Aspect

No	Activities Aspect	Experiment 1		Experiment 2	
		\sum student	%	\sum student	%
1	Listen to the ideas / opinions of the group.	24	70,59	23	67,65
2	Providing ideas / opinions to the group	23	67,65	25	73,53
3	Ask the group members if there are problems that are not understood.	14	41,18	17	50,00
4	Responding to questions from other groups.	18	52,94	21	61,76
5	Leave a question in accordance with the results of another group discussions presentations	13	38,24	17	50,00
6	Involved at the time of fixing the results presentation.	34	100	34	100
7	Responding to questions from the teacher.	22	64,71	18	52,94
8	Writing teacher's explanations	34	100	34	100
9	Listen to the teacher's explanations	34	100	34	100
10	Reading books, worksheets or relevant to the lesson	26	76,47	25	73,53

4. Discussion

In developing these learning tools, researchers are using the Four D model which consisting of four stages: defining, designing, developing (develop), and spreading (disseminate) is not done. Phase disseminate not be done because the development model used in developing learning device has been modified to the activities contained within each step and phase Four-D and not just a change of four phases into three phases but also characterize the process and the distinctiveness of activity in research steps conducted by researchers (Rohmad 2011, Kunreuther, 2006, Peguero, 2006).

The results showed an increase in disaster mitigation skills due to the learning model disaster mitigation give flexibility to students to perform a variety of learning activities, for example allowing them to train themselves to draw conclusions. Giving information about the activities to be carried out also encourages students to undertake disaster mitigation skills in learning. (Balakirsky et al., 2007; Ohgai et al., 2005), suggest ways to help a person in order to carry out aspects of disaster mitigation skills well, one of them is to let them train themselves draw conclusions based on clues or indirect evidence.

Student activities during the learning disaster mitigation showed an increase. The type of disaster mitigation skills that can be performed by students at the primary school does not spread as well as adults because of the limitations of their mindset (Comfort, Oh, Ertan, & Scheinert, 2010). In simple skills disaster mitigation to be possessed by students at least consists of: the skill to avoid disaster, to protect themselves and help others (Burby, 2006). It is believed that all three mitigation skills using simple language and procedures of the appropriate mindset of primary school students.

Disaster mitigation learning has covered a third of the disaster mitigation skills. In the process of learning integrated social science students learn by observing and doing practical disaster simulation process directly, with little guidance from the teacher the students can understand the way to escape from the disaster. By doing practical disaster mitigation students will work according to the steps contained in practical instructions that had

been developed at the previous meeting. Observation, discussion, and then present the results in front of the class after the students report the results of observation are aspects of disaster mitigation skills aspect which executed entirely by students with both then after learning of students will have the skills of disaster mitigation is better than before (Imamura et al., 2012; Yamazaki et al., 2010).

Implementation of disaster mitigation learning device also affects students learning outcomes. The results showed differences in learning outcomes among students who had learning with disaster mitigation learning and students who received conventional learning. Where students got a lesson with mitigation of disaster (experimental group) had results higher learning than students who received conventional learning (control group), this is due to learning by using disaster mitigation students more interested, enthusiastic and students feel learning disaster mitigation is more fun than conventional learning. Besides, also in the conventional learning teacher holds a dominant role while students tend to be passive.

The improving student learning outcomes is due to the involvement of students during the learning process. This is in accordance with the opinion of Darsono (2004) which states that one of the principles of learning is experiencing its own, meaning that students who perform with his own will obtain optimal learning results. In learning to use a learning tool in disaster mitigation students actively involved in learning and so has a better understanding for students than who studied conventionally. Students who are active in the learning activities will have better understanding and learning outcomes than students who only listen to the teacher's explanation and passive during learning activities (Yamazaki & Zavala, 2013; Galindo & Batta, 2013).

Based on observations known that the activity of students in learning activities positively impact in student learning outcomes, so the higher the activity of students the higher learning outcomes achieved by students. Occurrence of increasing disaster mitigation skills of students, students cognitive learning outcomes and learning activities of students in disaster mitigation indicate that the learning tools that have been developed appropriate applied in the classroom.

5. Conclusion

1. The device in the form of learning model syllabus, lesson plan, teaching materials, worksheets, LDS (student discussion worksheet) and evaluation tool developed according to the learning characteristics of disaster mitigation. The first phase of defending is literature study and survey of the potential for disaster in the student residence. The second phase includes the selection of the design and planning approach to product development. The third stage is the development of learning tools disaster mitigation, validation by the team, revision, limited testing and extensive trials in Ngaglik elementary school and Parangtritis elementary school.

2. The development of learning outcomes is declared effective because it proved able to increase disaster mitigation skills of students, student learning outcomes, and the appropriate to be applied at school.

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Personal Care Robots for Children: State of the Art

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Abstract

In the last decades, the application of robots in variety of industries has remarkably been increased. Self-governing robots have been employed in various fields of human life, particularly in that of old and very young people. It is assumed that in the succeeding years, personal care robots will be in an intimate relation with human beings. But, what caring responsibilities will the future robots have before children at home? This is directly related to the kinds of robots as well as those aspects of getting old that are the matter of question. Among the topics that are germane to robot carers, Child-care is the least discussed one. In this article the duties of care robots in the life of youth is investigated. It studies the benefits of the application of robots in daily life along with the negative points, perils, and anxieties that rise from the application. In this article, we examine the benefits of the usage of robots in the child life. Besides, we will discuss the disadvantages, dangers and fears that are related to child-robot connections. In the end, we will recommend some useful points.

Keywords: Robots, Care robots, Child care, Human- robot interaction

1. Introduction

Technological consideration is a collective trend and its effects on human life are noteworthy. The appearance of robots is looked at as a great technological achievement. Robotics has led to significant improvements in human life and industry. Nowadays, robots are very popular in a number of fields such as caring at home (Bilal Kartal et al, 2016; Portugal et al., 2015), accompanying guests in multi-level buildings (Velooso et al., 2012), manufacturing, medical(Feng et al., 2012; Garcia-Aracil et al., 2014), household(Matthias, 2015), military services(Halley, 2013), game(Pearson & Borenstein, 2013) and entertainment(Yampolskiy, 2013). In the following years, human beings and care robots will be closely connected

Is there any reason to feel anxious from the reliance on robots for child care? Accepting robotics and related technology is recurrently recommended as one of the ways to tackle the rising number of children in human societies. Actually, there is a growing industry which makes use of robots in child care. However, when we talk about these progresses, we have to regard some ethical concerns (Sharkey & Sharkey, 2010b). As an example, people are concerned about trusting child care to robots. They feel that such a thing can escalate social isolation and accelerate cheating and loss of dignity. Simultaneously, investigators have mentioned some evidence that prove the profits that robot care has for children (Banks et al., 2008). Also, this paper will deal with advantages, disadvantages, and worries resulted from robot care in child life.

1.1 Paper Contribution

Contribution: the previous articles mostly focus on the role of robot care for old people or in the hospitals as nurse. They do not probe the role of robots in child care. In this article, we study the roles of robots in children's life. We also would be conscious of the positive and negative aspects of these roles and the risks and concerns that they create. Finally, we will offer some recommendations which can reduce the problems between robots and children.

1.2 Paper Organisation

This paper is organised as follows: 1. An Introduction, explaining the contribution and the outline of the paper. 2. Then, description of technology and care and definition of robot care, ethics, and robot care. 3. Elaboration on child and robot care, benefits, weaknesses, and public concerns related to children and robot care. 4. Conclusion and recommendation.

1.3 Technology and Care

Assuming that due to addressing the concept of care, the technology which is applied in the child care needs investigation, presumes that the concepts of care and technology conflict with each other. On the one hand, there is a standpoint according to which care and technology struggle against each other; that the two are the manifestation of diverse realms of meaning (this is described as "gendered spheres") (Wilson, 2002). Based on this view, one domain is the embodiment of personality and emotion (care), and the other one is the origin of objectivity and standardization technology (Wilson, 2002).

Therefore, the concept of care as in healthcare, is valued as a tool to address the biological, physical, psychological and emotional needs of children in a way that is aware of individual expectations. It is in need of skill together with a compassionate nature. Explaining these details renders it possible to employ technologies that offer caring aid in a way that supports this outlook.

1.4 Definition of Care Robots

Based on the views on the entity of a care robot, recently a number of definitions are presented. Carebots are robots are planned to be used in home, hospital, or other settings. They are to contribute in, support, or arrange care for the sick, handicapped, young, old or, else, weak people (Vallor, 2011).

Latest developments in robotics have equipped robots with improved conditions in movement, activities that demand skill, flexibility, and the ability to adapt and learn from and communicate with human beings. So, it is clear that, nowadays, the potential range of robotic application is greatly expanded (Manyika et al., 2013). These innovations in robotic technologies have influenced the market of service robotics. In its turn, this has resulted in multiple robotic applications. The current demographic changes has led to the gradual developments in the reorganization of work, escalation of economic crisis, and increased interest in the opportunities that are introduced by Information, Communication, and Robotics Technology. The same is about the research activities and projects which aim was to develop solutions to guarantee sustainable healthcare services (Moschetti et al., 2014). The sales of robots as the assistance of old and handicapped people rose to about 6,400 units between 2013-2016 and it is expected to rapidly go up during the next 20 years (IFR, 2014).

The solutions offered by robotic service range from the simplest telepresence functions, which backs caregivers, up to the most complex ones. Some samples include the Giraff (www.giraff.org) which evolved in the ExCITE project (Coradeschi et al., 2013), AVA (www.irobot.com/ava) and Luna (Ackerman, 2011), assistance for routine activities such as the self-governing of chronic diseases (Simonov et al., 2012), well-being, and security provided by Florence (Frank et al., 2012) and Robo (van de Ven et al., 2010), along with integrity in a smart environment (Cavallo et al., 2013).

Researchers have turned their focus to the usability of robots in hospitals. Beran et al. showed that Nao, a tiny humanoid robot, could entertain children and divert their attention from the pain of flu vaccinations by applying pain-reducing cognitive-behavioral strategies (Beran et al., 2013). Jeong presented some primary behavioral evidence of the mechanism through which a socially= assistive robot could entertain patients in their beds in the oncology units of hospitals and how this form of positive communication could actually lessen patients' tension, unease, and ache (Jeong et al., 2015). It is quite a while that various robotic platforms are introduced and used in children's clinical therapy as well as interventions (Jeong et al., 2015). Pleo (Curtis et al., 2011), Keepon (Kim et al., 2013), and some other robotic platforms are instances that are used in young children's therapy.

It is probable that in future robots and other machines, preserving the human involvement, will transform child care. As is confirmed by all parents, time is an important matter in taking care of young children. As a result, economically child care is one of the largest segments, at least when it comes to nonmarket household sector. For many parents children their most valuable things. So, parents feel the happiness of having children deserve the time and costs spent on them. Some adults decide not to have biological children, and the time and costs play important roles in such a decision. (certainly the feedbacks are not that simple; a study which was done by Satoshi Kanazawa (Kanazawa, 2013) and suggested that women who have higher IQs are not that much eager to have children, made waves in the blogosphere in latest days.). On the other hand, the rate of aging in societies is higher than the number of the young people who can provide the care (Conrad, 2015; Hendrich et al., 2015; Ministry of Health, 2012; Office, 2013; Sumiya et al., 2015).

The heavy pressure of time in child care is also a factor that limits pregnancy in young mothers. It is expected that teenagers complete high school and advanced levels of education. Students' parents, educators and counsellors – not to mention teenagers themselves – are aware that teenage motherhood stops the social development of these mothers and, in this manner, makes academic success less likely (Mulligan, 2013).

If children were not in need of much time, the world would be completely different. If children did not take so much time and attention of, particularly, their mothers, more people, mostly teenagers, would have children. People who, regardless of the cost, already have children might have more of them if they were sure that each child requires less time (Mulligan, 2013).

As the growth of population is limited by children's time costs, its growth will be more fast if those costs are reduced or controlled, whether you believe that such growth is either a good thing or a bad one. If each child takes less caring time, it is expected that parents – mainly mothers – will have free time for other things like more time for working outside, completing their own schooling or enjoying leisure time activities. However, it is probable that having more children, people would spend more time for taking care of children and they will have less time for other things.

In case of rich people this is different. Because of financial capability, they can afford aides like baby sitters, nurses, and tutors. Yet, it is hoped that technological progress will finally reduce the costs of child-care for all social classes.

Because nowadays robots and other machines perform the jobs that were previously done by people – even playing chess – and are anticipated to do other activities such as driving cars, maybe it is logical to imagine that robots will one day take care of children, too.

For some people it is heartless or immoral to trust young children to a robot or to leave them in a day care centre that is supervised by machines. But, child-rearing outlooks are affected by the recent economic and technological changes and practices. Some examples are: taking test tube babies, working mothers, screening time, public interest in fast food, or children who have their personal telephones.

There is no reason for the anxiety that machines will take the all phases of child rearing in their own hands. Compared to machines, people will always have a comparative advantage, even if machines are principally better at almost everything. Just as economically the world production will go up by employing unskilled people for some tasks and knowledgeable and skilful people for some other ones, people can do the tasks which accomplishment, compared to other tasks, are not easy or manageable for machines. Nevertheless, maybe parenting will be easier and, therefore, more acceptable in the case of robots.

2. Ethic and Robot Care

Good care (valued care) is assumed as a kind of care in correspondence with the individuals' changing needs. The literature of the ethics of care review this concept as one of the major points ; just in case of personalization, care is viewed as "good care" (Tronto, 2010; Vanlaere & Gastmans, 2011).

When they discuss ethics and robotics, the authors assess these categories, focusing on various concepts such as individuals' rights (Sharkey & Sharkey, 2012), the special requirements of a care receiving demographic (Sparrow & Sparrow, 2006), or the special impressions of the care-giver (Vallor, 2011). While these analyses, no doubt, contribute to the notions of ethics and care robots, overall, they are bereft of the establishment of standard recommendations that are based on their work and are referred to in designing future care robots. In his article "What should we want from a robot ethic?" (Asaro, 2006), Peter Asaro explains three dimensions that are as follows: "ethics of robots": (1) that considers ethical systems which robots are operating based on them; (2) the ethical systems that the designers of robots consider them, and; (3) the ethics dealing with the interaction of people with robots. Then, he argues that, considering the entity of robots as social-technical systems, an ethical framework of interaction with robots must cover all the three dimensions. For Asaro, the comprehensive notion from which the three dimensions originate, is preserving moral responsibility in the social-technical context wherein robots are operating. Asaro presents a convincing case about the necessity of a comprehensive approach to robot ethics, but does not elaborate on the approach.

3. People's Concerns about Children and Robot Care

Technological robotic care for children is a developing industry. Nevertheless, Some points should be concerned when the advances in this field are investigated (Portugal et al., 2015). It is understandable that interaction with a robot which responses follow the situation is interesting for youngsters, babies, and infants. However, based on some evidences, it is logical to be concerned about the outcome of such interactions because the powerful effects of childhood experiences, especially interactions, are not ignorable (Sharkey & Sharkey, 2011).

In the coming years, progresses in natural language processing will definitely impress the improvement of robot-child conversations (Sharkey & Sharkey, 2011). Still, the human interaction of adult-child caring would be deeper than such an exchange as. For a machine, persuasive response to a sentence or a conversational matter is completely different from offering suitable guidelines or reasonable answers to complex cultural problems. An

adult human can understand special signs and use them to respond to a child in the best way and decide on the level of the response. Since both adults and children change over time, the verbal communication between them is also subjected to change.

Children's talents and understanding determines the policy of communication between adults and children. Parents permanently assess Children's comprehension abilities, through both verbal and nonverbal signs. In this way, parents become aware of the depth of children's understanding. Both verbal and cognitive developments profit from this recognition. Finalizing a certain set of rules which helps a robot to engage in transactional communication is not that difficult. It lets a robot decide on proper guidelines that were used to be offered based on a caregiver's insights.

Children love "Make-believe" play and "let us pretend" games. Cayton (2011) believes that when children play make-believe and let's pretend games, they know that it is not a real situation. Real playing is done consciously. If you ask a child who is playing with a doll, what s/he is doing, s/he may answer that really they are going shopping or that the doll is not feeling well, but they will remind you that they are playing". On the other whole, children do not control, puppets and, in this case, it is not necessary to consider imagination and deceit. However, a child who is spending time with a puppet, quickly understands that it is not a real situation. What distinguishes a puppet from a robot is that, when the child is left alone with a robot, it is capable of operating variety of acts. This may result in physical, social, and relational anthropomorphism which can embody the situation as real and not illusion. Young children do not know technological world to that extent that distinguish between living creatures and robots. The same can be true about the old people who suffer from Alzheimer (Sharkey & Sharkey, 2011).

Furthermore, this anthropomorphism probably is not consciously controlled. Perhaps, people are conscious enough to know that the robot is a machine, yet, they may respond to it, as if it is a living creature. Therefore, attribute human features to robots in a way that liken them to humans could raise ethical arguments about deception (Sharkey & Sharkey, 2011). Accordingly, personifying inanimate things in such a case, can be deceiving. Furthermore, it is not acceptable to put an end on making or playing with dolls, puppets, and statues.

There is no evidence for the claim that a robot can function as an appropriate substitute for human care. As Sharkey and Sharkey discuss (Sharkey & Sharkey, 2010a), the sensitive response of a robot to a child in a way that establish a fixed and safe attachment is not a certain fact. Because infants' dependencies, firm attachment to a caregiver depends on good development. A child, who is provided with secure attachment, gradually learns to recognize another person's perception. When a baby observes the reflection of his/her emotions in his/her mother, s/he develops an understanding of his/her own emotions. Can a robot which is in charge for a baby, develop mutual patterns of social manners?

Epley et al. (2010) stress that children need social connection. Yet, they argue that children may not know the technological mechanism which renders interactive robots approachable f. In recent investigations, scholars have studied these factors to show how children make use of them to heighten the tendency for anthropomorphization (Epley et al., 2007).

To explain the tendency for anthropomorphizing non-human agents, Epley et al. (2007) suggest three psychological factors:

- The approachability and usability of the anthropocentric knowledge,
- The interest in reviewing and understanding other agents' behaviour, and
- The yearning for social connection

The argument is supported by numerous experimental evidences. Just few samples of these evidences are mentioned in this part. The approachability and usability of anthropocentric knowledge are affected by many factors For example, in case that the physical and behavioural resemblance between an entity and humans or animals increases, the degree that it is anthropomorphized and empathized rises too(Sharkey & Sharkey, 2012).

This description of anthropomorphism can set forth the conception that the very young people are likely to anthropomorphise robots more than any other age groups. It is partly because of the lack of necessary knowledge to know about the limited capacity of robots that deprives them of sophisticated wisdom and empathy. Very young social groups have strong yearning for social connection; babies (one reason is that instinctively they search for human social contact)

It is assumable that the very young people may easily develop intimate relations with robots and automaton pets. It is because in this age children are apt to realise the illusory understanding more than other age groups in the

population. There is a tendency among people to anthropomorphize robot companions and pets, but assuming that this will create an ethical problem to some extent is determined by the possible results of such anthropomorphism (Sharkey & Sharkey, 2012).

4. Disadvantage of Care Robots in Children's Lives

Old people's interaction with robots possibly will have some positive consequences. Nevertheless, these positive outcomes are not exactly the same about babies and infants. Because of their immaturity and young age, as well as their strong social drive despite their rudimentary technological understanding, infants naturally miscalculate the abilities of those robots that have physical features similar to that of humans or animals.

Based on infants' understanding, daily simple caring tasks such as changing diapers, changing clothes and etc. are the basis of a natural relationship. By trusting these duties to robots, the recipients of care would lose their fundamental human contacts. The worst case of this is to have robot nannies take care of children for long hours. Since it is a very weak possibility improving to have robots with cognitive human capabilities in any near future, to comfortably leave children totally in care of robots increases the probability of psychological damage in children (Sharkey & Sharkey, 2010b).

The most alarming case happens when robot nannies are left responsible with children for a complete day. Since today knowledge still is not developed to that extent to let apply cognitive human abilities on robots in near or far future, leaving children in the care of robots for long hours would multiply the possibility of pernicious psychological harm in them (Sharkey & Sharkey, 2011).

Impeded sociocultural, emotional, and linguistic developments are not the only negative effects of permanent connection of a young child to a robot are not. In Bryson's (2010) words, a child can predict the reactions of robots much easier than that of humans and, owing to this quality, child may favour connection to robots to that of human. In line with this view, Kubinyi (2010) argued that like cross-fostered animals and birds that are brought up by surrogate species and have developed other manners and responses, the human beings who have grown up beside robots, in comparison to other humans, probably will behave differently. For example, they may develop an interest in systems of personal entertaining and get used to the norms of non-human behaviours. The final result of this is the arrival of new forms of humans or homo-techniques (Kubinyi et al., 2010).

Melson (2010) has investigated the negative consequences when human interactions are replaced with technology. He cautions that if children get involved in personifying robots as living creatures, they are susceptible to develop a robotic understanding of human and animal entity, bereft of moral standing. Trusting the responsibility of babies and infants to robots is a risky action with severe and harmful costs.

5. Conclusion and Recommendations

Nowadays, robots are widely used in different industrial fields. Independent robots are set to perform particular tasks in human societies, chiefly in the lives of old and very young people. The population of old people is rapidly multiplying worldwide. Therefore, to enlarge the chance of mobility and facilitate independence, it would be helpful to refer to personal care robots. A sub-branch of robotic care, that is still less discussed, is Child-care. In the near future, the personal care robots will be closely connected to human beings.

This article investigated the functions of robots in children's regular life. This article tried to not only discuss the advantages of the robotic application in enhancing children's life condition, but also regarded the disadvantages and anxieties raised from this application.

As we elaborated on in the previous section, old people's collaboration with robots could result in positive points. Such promising consequences are not repeated in the case of babies and young infants. Because they constitute the youngest social group and, unlike their little technological knowledge, have a strong passion for social connectivity, babies naturally exaggerate the physical capacities of those robots which physically are identical to humans or animals.

Such an identification can jeopardize the life of infants and even those around them by exposing them to long time connection to robots. This, undeniably, diminishes the time of human connection and, in this way, blocks children's mature social understanding. Such children will not learn to develop perfect communication with their fellow human beings. For infants, having a careful caregiver is a crucial necessity. Leaving children with robots for long hours is not something to be approved. The most important reason is that it will problematize the process of internalizing natural human relationships in infants. Likewise, a robot could not be of help for an infant in developing linguistic ability exactly the same does a parent.

Nowadays it is well known that, to have a balanced and normal social life, an infant is in need of a caregiver

who simulates proper maternal sensitivity through which the caregiver can observe and understand baby's all movements and deal with them in the most perfect way (Ainsworth et al., 1991). Usually robot nanny cannot teach infants to develop the skills to understand the nuances of mutual and perfect human relations. May be it is pleasant to hire a robot for looking after your baby and letting you focus on your work as much as possible, but the risks are also considerable. Essentially, in older children it is different. For the children who have enjoyed the attendance of human caregivers and, therefore, have developed secure attachments, through precious and basic human-social contact, exposure to robots could even be useful. Robots certainly will acquire a vital role in the future society. Thus, it would be very useful if children be familiar with the automatic jobs and the technology used in robots. In Milson's view (2010), obtaining robotic literacy is a must for both parents and children. "Such 'literacy' will provide them with the chance to be familiar with these realities:

- the systematic process of manufacturing, preserving and putting robots in to action, highlighting the fact that they are the result of human contemplation;
- knowing the restrictions and capacities of different robotic technologies; and
- distinguishing between living and 'pretend' living—damaged creatures, puppets, and robots."

Moreover, giving children and adults the chance to realize the details of anthropomorphism and the methods that are applied to enlarge the mental illusory states in lifeless machines, could function as an influential tactic to protect both children and adults from the unwanted consequences of the apparent magnification of the capabilities of robots.

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Moderating Hope in the Awaiting for Release: A Practical Approach for Imprisoned Female Offenders in Malaysia

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1. Introduction

The concept “hope” has always been synonymous with a force that usually leads to imaginable and feasible good and better life (Ward & Wampler, 2010). According to Snyder (2000), hope can generate useful paths to reach desired goals and signifies one’s thoughts about his or her capacity to use the pathways. This dimension of hope is pertinent for people who are confined or constricted either mentally or physically. For imprisoned offenders, hope is perhaps the only strength that still exists and that keeps them going. However, what hope would mean to the offenders differ when they are inside the prison from when they are outside, after being released. Hope at the outside is achievable for the reason that capacities can be operated by following paths (Burnett & Maruna, 2004). However, hope for getting out from a prison can be maddening or even despairing, given that a release depends on one’s verdict. The longer the sentence, then the later would the hope be accomplished. How then prisoners cope with their high hope to be released sooner when they need to serve time undergoing their judgment?

For many years, people have deliberated about women and prison. Female offenders are very much affected as soon as they are sentenced to imprisonment. Ten years or even just a year of a sentence would subjectively disrupt their mental health especially for those with children. Thus, it requires lots of strength to endure a period of long and uncertain separation. Without a proper credence, high hope may raise significant frustration, instead. Hence, it is essential for female offenders to overcome the conflict of having high expectations behind the prison walls. This article explains how some Malaysian female offenders moderate their hope in prison to keep their sanity while waiting to be released.

1.1 Hope in the Contemporary Literature

Pieper provided a platform for “understanding of human hope” (as cited in Schumacher, 2003, p. 5). He affirmed that hope is incapable of realizing its object simply by one’s capitals alone, but it also requires gifts or inputs from other people. He even added that human would naturally destine to their final goals. These goals represent his or her aim of life and total satisfaction. It is the par excellence achievement. However, Pieper connected his statement with the notion that one also remains free not to accomplish his goal in reality. In other words, the way to be feeling happy (hope to reach the target), does not need to imply accomplishment. In fact, he mentioned that people are not obliged to choose what they may not want to gain (the good) “or even ones that lead away from it” (p. 46).

Al-Ghazali in his Book of Fear of Hope translated by Mc Kane (1965), considered hope as a moral concept for its foundation of inducement or motivation. On the other hand, despair was unacceptable and is the reverse of hope which could lead to interruptions in life. However, according to both scholars, fear is not the opposite of hope, instead, an acquaintance, which is also a source of motivation. Hope produced constant spiritual war through actions and determination in obedience, even though the journey was hard. Those who possess these two values have the ability to find wishes, likings, and desires in the uninterrupted acceptance with God, satisfaction in prayers and keenness for bowing to Him. These conditions, they stated, must be demonstrated by everyone who hopes and that this could be made only to God; for its utmost degree of rendition of behavior. If it was not manifested as said, they concluded that instead of obtaining what was hoped for and having the decency in life, one would fall into the “pit of self-delusion and wishful thinking” (p. 539).

Theories of hope have been in the literature for decades. From the perspective of this paper, Al Ghazali's view on hope is found to be relevant to the current development on issues about expecting change. His notion of hope is about preparing oneself to accept the condition should hope is not achieved, seems practical and essential for human life. Therefore, this study aims to search for some findings that could reveal the relevance of Al Ghazali's notion of hope in the life of female offenders in the Malaysian context.

1.2 Female Offenders and Hope in Prison

Female offenders are among those who would be much affected when sentenced to prison. In the Malaysian culture, women in prison are a taboo. Through the paternalistic perspective, at any scale of offense a woman does, it is always "not ladylike" to be in jail (Nagel & Johnson, 1994). Hence, at the point of judgment to imprisonment, female offenders may have experienced enough encumbrances than male.

Additionally, female offenders constantly think about the well-being of their children during their absence, and this would only add to their distress. Female offenders with a long sentence ruminate and continue counting their days to be set free. Even with high hope, knowing that the day to be released far along does give impact on their sanity. Moderating their hope for release will help to reduce the adverse effect on them. This work on hope takes place when the female offenders anticipate that they may not gain their expectation very much later in life, due to rules and regulations which are beyond their control.

2. Methodology

This study was completed using mixed method approach. The combination of multiple forms of data in this study occurred through connecting the data from the results of the first phase (quantitative) with the analysis performed in the second phase (qualitative) (Dawson, 2002-2007). Primarily, a quantitative approach was used to discover the profile of respondents. In this respect, the study utilized descriptive statistics to identify some demographic information including the respondents' level of hope. The findings were then used in the qualitative round to explain better aspects of hope that are involved which finally lead to achieving the female offender's goal.

The respondents of this case study are an inclusion of forty (40) Malaysian inmates of the Sungai Udang Prison, Malaysia who possessed certain selected criteria. Non-Malaysians were excluded in the framework because they do not represent the Malaysian community and culture.

Even though there is no particular population for this study but qualitative sampling techniques (Nastasi, 2015) were applied to work systematically on the selection of informants for to gain the appropriate ones. Utilizing qualitative sampling like snowball or chain sampling is not relevant in this case study because the method is not suitable for female offenders who are staying in a prison environment.

Patton's (1990) and Miles and Huberman's (1994) qualitative sampling strategies are the most suitable selection technique for this case study. As to Patton's way of sampling, these women offenders were singled out for this study with the collaboration of prison authorities through a non-probable purposive criterion sampling technique. This sampling is chosen because it offers richness in information where "one can learn a great deal about issues of central importance to the purpose of the research" (Ibid, pg. 169) or get a comprehensive view of the substance (Neergard, Olesen, Andersen & Sondergaard, 2009).

Mills and Huberman (1994) sampling technique of Purposive Maximum Variation Sampling (PMVS) were also applied. This study used purposive approach because of its pursuit of an in-depth understanding of the phenomenon. Finding the similarities or common strengths from a group of people who possessed different criminal background, age, religion, and offense record are also in the context of the study. According to Onwuegbuzie and Leech, (2007) and Merriam (1998), PMVS or heterogeneity technique was used to capture and describe central themes derived from a variety of participants, from a limited system.

This step begins with identifying various features (characteristics) for constructing the pool of informative respondents. Thus, at this stage, the study also considered variations in attributes, history, and backgrounds of the female offenders. In sequence to the spirit, all the research informants were those under incarceration period in the Sungai Udang Prison and had to meet with only these criteria:

- a. Malaysian women prisoners who admitted into imprisonment for the first time or more, regardless of their type of crime committed (except those who are not allowed to participate by the prison authority due to some security or health reasons)
- b. Of all kinds of race, ethnic, age and criminal background

According to Merriam (1998), this phase means that at the non-probable purposeful technique, sampling and

selecting the criteria is done at the case level before the data collection process.

In the quantitative study stage, the whole number of participants (40) who fit into the study criteria was chosen by the authority themselves according to the study need. Out of the 40 samples that had all embarked on questionnaires, thirty-four (34) of them had agreed to participate in the qualitative round. This level accomplished before the data collections begin (Merriam, 1998).

In the qualitative phase per se, from the 34 of those agreed, another “within the case” selection was performed. In fact, this time, the selection process was implemented simultaneously with the data collection (Ibid, 1998) process. Works of random selection by picking numbered cards progressed until its finale (saturation point).

The fact that the selection had to be from within the 34 samples helped to qualify this research as a case study (Patton, 1990). Only that sampling from within the case was done to pick occurrences that came from the right group (Adelman, Jenkins & Kemmis, 1993 in Merriam, 1998, p. 28). Of the 34 cards that were available, no specific number was determined for selection to gain as much and definite similarities or pattern of events, and at the same time hoping to meet into non-confirming evidence.

2.1 Saturation Point

This study applied Lincoln and Guba’s (1998) popular recommendation in its qualitative section. Samples were treated as enough when the redundancy of data appeared, that was when there was no new information of worth. However, in determining the degree of saturation, working on additional samples was executed. Patterns were found as at the 8th respondent and continued to ascertain the pattern across heterogeneity until the 13th. At this juncture, the study found saturation. Mason (2010) mentioned that usually, qualitative interviews stopped when the number of examples becomes a multiple of ten. Somewhat not when saturation has existed, the researcher was confident (Ibid, 2010) with the sampling numbers in this study, which had succeeded in fulfilling what Bertaux (1981) referred to as meeting a point of “saturation of knowledge” (p. 37). Furthermore, respondents from this study are from structurally hard-to-reach-group (Brakertz, 2007).

2.2 Instrumentation

This study used two (2) sets of questionnaires during the first phase of data gathering. Questionnaire 1 was to explore the history and backgrounds, and Questionnaire 2 was to determine the level of hope. A set of interview protocol was used to examine their hope in reducing risks for recidivism.

Questionnaire 1 was a self-built instrument. It uses the Malay Language as the medium of instruction. This tool was meant to explore the basic history of crime committed by informants and their demography. The aim of Questions was to find out some basic backgrounds which provided a general understanding about the female offenders before pursuing further observation or analysis. For instance, this study set questions about age and race, type of crime, length of sentence, marital status and children.

Questionnaire 2 was an instrument adapted from Herth Hope Index (English version). This tool was used instead of Herth Hope Scale because of its aptness in measuring hope among prisoners (K. Herth, personal communication, March 22, 2011). This instrument was translated into the Malay Language to ensure that respondents understand the items and able to answer them without difficulties. Reliability and validity of the questionnaire were at .714 Cronbach’s alpha.

Management of data from Questionnaire 3 with 4 items Likert Scale was by using SPSS. Score item was from 1 to 4, for Strongly Disagree, Disagree, Agree and Strongly Agree respectively. Except for item 3 and 6, they are the reverse score. The higher score indicates a greater level of hope in life in an individual. Results found were presented descriptively using descriptive statistic to see the overall picture of hope in life amongst female offenders.

Questionnaire 4 was a self-built instrument which was open-ended to less-structured inclined. This way was to invite the imminence of that not-so-specific information which entailed to discovering other possibilities of strengths or capitals owned by informants (Merriam, 1998). It was also suitable for the nature of this study, which was an investigation with some material where to some degree the researcher had some inputs about the subject (Devers & Frankel, 2000). Instruments were the product of critically reviewed questions so as to avoid the wrong way of inquiries. There was an execution of pilot interviews before establishing suitable arrays of questions. Thus, as much as possible this study avoids multiple, leading or yes-or-no questions. (Merriam, 1998). The researcher herself performed the in-depth interview.

3. Backgrounds and Level of Hope of Female Offenders under Study

Overall, these female offenders were at their productive age during imprisonment. Seventeen of them were still

single. Fourteen were married while divorced and separated were five and three respectively. Only one reported that she was a widow. Most of them have at least a child. The majority (21) were charged or remanded under drug offense while some (9) were under sex offense. The rest were offenders arrested for crimes like murder, blackmail, and theft.

The results showed that 4 (10%) out of the total respondents have a medium level of hope. However, more than two-thirds (80%) of the female offenders recorded a high degree of hope. Another 4 (10%) of them scored very high hope, indicating that they were at one end of the continuum of hope. None, however, scored low level of hope. In general, the women in this study are categorized as women with high hopes to live outside (Martin & Stermac, 2010). Nevertheless, during the long waiting period, high hope female offenders need to develop skills to stay mentally healthy. A qualitative study was embarked on to discover the mechanism they use to control their level of high hope to live outside prison.

4. Coping with Hope in the Prison

This study performed an in-depth interview on 15 female offenders who were from the initial group to ascertain the ways female offenders applied in dealing with their hope when in prison. While the rest of the female were on high hope level, three participants were at very high hope level.

The result showed that mostly, during moments of a feeling of hopelessness, missing the loved ones and the longing of going out of prison; female offenders will resort to performing religious activities, communicate with peers or take part actively in rehabilitation programs. According to the majority of them, these actions would soften or bumper the impact of grieves and sorrows they feel due to separation and for putting too high hope to be released sooner. They, however, did not consider their hope as shattered, but their high hopes are kept aside or in moderation to keep rationale during their long stay in prison. This is because hope to go out and meet up with loved ones like when life during outside prison is very much impossible to be achieved. Without the skill to moderate hope, they would most probably spend their time moaning, feeling down and finally leads to inactiveness. These conditions will only prevent women offenders from leading a positive life and restraining them to participate fully in the prison rehabilitation activities.

It needs strength and understanding as well as skills to accept that hope to be free could only be achieved later than expected or desired due to lengths of the sentence. This strategy of moderating “hope to be free sooner” is important to avoid situations where “high expectation raises great frustration.” As an example, in the interview with Rita, a matured middle-aged female offender tasked to make pins while in prison, she said,

“Myself, I am considering myself to be just ok, not that... not much thinking (about going out), not really”.

“Like (making) these pins... at least, it helped to release the tense which we would be bound to... (It hurts when) remembering about our children outside, (thinking whether) do they eat? Do they go to school? It was like that...”.

Rita seemed to keep herself busy with making pins work. She believed that the effort could avoid her from putting too much hope to be released, to check on her children’s daily routine.

For Koay, a Chinese woman of late thirties, in keeping aside her “hope to be free as soon as possible” she said,

“That’s why we don’t think often...my father said don’t think, if you think, read the bible, read the bible”.

Ajlina who is the most senior female offender showed similar values. When asked on her hope while being in prison waiting eagerly to be set free to perform her motherhood role, she said,

“Affected a little, no doubt, for instance, when it is the schooling season, it was always me who prepare all the needs. Hah! It was there. Hah! I will always, (doing) this and this and this... (Taking charge preparing for her children’s schooling needs) Unfortunately, we could only say it, but we cannot do it. It is ok, be patient, I said to myself”.

Asked on how she moderated her hope, she continued,

“It is ok; I leave it to God. It was that when I could not get anything, I had always left them much to God. I’ll pray... O God, please help to ease the problem of my children. That’s the most; I will continue praying”.

The female offenders who are mentally healthy appeared to have hopes to do what they usually do during life outside. However, because of constraints of being in prison, they moderated their hope by going back to faith and belief of their religion or focusing on rehabilitation activities.

5. A Case of Hope in a Distressed Female Offender

To compare hope between female offenders who can control their hope and female offenders who are not, this study went further observation on Aflida, an early twenties female offender who had set very high hope in life (as resulted in her hope index). When asked about changes she has felt during stay in prison, Aflida answered,

"I am feeling bored living in this prison. It seems to be too boring and mind-numbing. ...that is it!. It was like; the life in this prison seemed to be affectless and...does not bring any value to me. It is like that".

(She expressed her feeling of protest over the imprisonment which had upset her hope to live outside and enjoy her working life.)

The remark signifies that Aflida was bothered and felt frustrated over her very high hope to be freed from imprisonment as soon as possible. Her situation presented some relevance to what Lord and Hutchison (1993) referred as failure to think judgmentally or seeing things in a different way while in prison. She could not accept the fact that spending time in jail would cause her high hope interrupted. Furthermore, her unawareness of the inability to moderate hope had made her emotionally unstable. Her reaction or words used in explaining about her life in the prison were rather blatant and filled with hatred.

On the other hand, Ajlima, Koay, and Rita showed different emotional reactions or emotions when they failed to perform their routine; they seemed more subtle in handling their hope when in prison. They could accept the fact that hope is still in their grasp, only that it will be achieved a little later.

Hence, while hope has its role in shedding lights to female offenders to continue their life outside prison, too much reliance on it while not much can be done, would affect their emotion and well-being. Therefore, having high or very high hope to survive in prison and living the norm is adequate for female offenders to keep their well-being in the balance.

Without prejudice, this study also discovered that Aflida was a little odd. Even though she was amongst that possessed a very high level of hope, in fact with the full scoring of hope to live (Herth, 1992) her answer to a question about her success story did not reflect her accordingly. The researcher asked about her salary and what she did with the money. Her illogical answers were,

"I earned RM37, 500 a month. I kept some, and with the balance, I bought myself a car and an airplane... I purchased the airplane with a price of RM188, 000 in cash. I bought the flight with a cash price... cash, I bought it cash".

The researcher further questioned to check on her mental health. This time was about her built capitals.

Researcher: Ok, do you own a house, you do have a house of your own?

Aflida: I have a bungalow. I have a bungalow. It is a three story home.

Researcher: What a big sum of money you have?

Aflida: Of course!

Researcher: Other than the airplane and the three-story bungalow, what else do you own?

Aflida: I owned eight cars. They were MyVi, an Alza, two Pesona, a Kenari, a Swift and a Ford... black Ford. I have eight cars.

Clearly, Aflida was not really in good mental health. Her answers reflected her fantasy. (Aflida was supposed to undergo a mental health screening for the crime she had committed). However, juxtaposing Aflida's strangeness is not about shaming her, but rather to show an extreme case that could further approve this research argument. On the first observation, Aflida's data seemed to support the view of this research that only those with the high level of hope or very high level of hope in life would be able to prioritize their roles and types of expectations (not those with distressed mental health). Her response indicated her anger about being in prison.

"Of course...I feel upset. I am not able to go to work because I am in this jail".

Probing 1: How often do you think of living freely?

Aflida: Hee! It is every second that I think of it. I want to be free.

Probing 2: You mean, you are feeling disturbed when living in here?

Aflida: Definitely!. I am feeling too much in distress. I am profoundly affected.

From the conversation, Aflida, on being at a very high level of hope to live and showing a distressing symptom, has had them overshadowing her supposed existence of hope to survive in prison. In the first place, having very

high level of hope, but distraught, yet to live among other female offenders would mean live in prison would be harder. From one angle, one can say “hope to live outside” the prison without considering the need of “hope to survive in prison” would affect the well-being of female offenders. Aflida's perception has proven this.

By evident, only female offenders with a high level of hope or very high level of hope and mentally healthy would be able to accept the circumstance that they have to spend some time in prison before achieving their goals. Thus, they need to moderate their hope to live by considering their hope to survive in prison, first.

This study found that hope is one of the substances of empowerment. When one is empowered, he or she knows what is best for him or her and in this case, it is to drive hope positively in life while even living in prison. Many academicians have advocated this, for instance, Geiger and Kwon, (2010), Reading (2004), Webb (2008), and Lord and Hutchison (1997). In other words, to make hope works, one would also need to understand in which or in what context hope helps. This situation is analogous to Ullrich and Coid's (2011) finding that working on capitals to achieve targets should, therefore, consider the right timing; and similarly the right place. The same goes to Zimmerman's (1995) concern about people's belief in their ability to put forth their control that they have to go according to context.

6. Hope and Patience

For a fresher outlook, another aspect of analysis that supports findings on the importance of moderating hope was the discovery of the importance of “moderation concept” embraced by women offenders in focus. The word “sabar” (patient) to Tizai, Ajlima, Hija, Zamira, Oriyaha, Solina, Nikish and Sue Ina has always been the word for solace. In fact, even Koay, who is of different race and religion admitted that patience, is the best way to lead a life in prison. She said upon being asked about her feelings on staying in prison,

Researcher: Koay, how do you feel your life when staying in here?

Koay: Me... my...however, the one that is so ccch! (Unexplainable experience which touched her emotion) I just keep on being patient... just be patient.

The word “sabar” (patient) and other words that carry the same meaning were found prominent in their texts (44 references from 9 respondents). Directly, this indicated that it brought meaningful perceptions by the group of focus. The concept “patient” intertwines with the notion “hope.” The term is also about moderation, about not to put too high an aim and not to have no aim at all. Hope without patience would lead to impairment. Ullrich and Coid (2011) indicated in their study about how protective factors could turn into risks factors; like when there is no patience in achieving hope. It is where disaster would easily win through. Al Ghazali's strong emphasis on the importance of hope that comes along with the fear of God through its ambiance of devotion and rendition, thus, should be noted earnestly.

Others such as Hatch (2007) and Webb (2008), advocated that religion has its link with hope. In fact, the findings that insist on hope for women offenders in prison should mutually exist with the concept of “moderation” or sabar are in line with what have been specified by McDermott and Snyder (1999). They said that high hope people are those who are realistic in knowing the ups and downs of their dreams and desires. Nevertheless, they believe that with the abilities they will finally achieve their ultimate goal.

From another angle, this study also found that strong support from prison personnel, prison peers, and family through visits are essential to keep offenders' well-being during incarceration. It is through this social relationship that stories are narrated and listened. Therefore, this relationship leads them to change their minds about putting so much hope to be free. In other words, family and friends' involvement in rehabilitation programs pays. Chamberlain (1997) stated in his article that there are times when people learn to deliberate critically, unlearn the habituation, and see things in a different way. His explanation did not elucidate on this as one of the methods to survive in a close penitentiary. However, his phrase fits well with the women prisoners' experience in dealing with too high a hope or a state of wishful thinking. It is the action of expressing, and that of being paid attention to that is important for the empowerment process to happen while in prison (Chamberlain, 1997).

7. Conclusion

Malaysian female offenders in this study were found to have high levels of hope. However, because of the need to withstand particular challenges in the prison which are beyond their control, the most suitable way to achieve their goals is by adopting the moderating hope approach. This method does not interfere with the fundamental role of hope because possessing high expectations means that achieving goals requires sacrificing every possible and realistic effort. Without such facilitation, they might, instead, be in jeopardy or be at greater risk to become aggressive or mentally unhealthy while in imprisonment. Hence, the moderating hope approach is suggested to

be imparted to female offenders because it offers them awareness on the importance of living life in the prison with rationality before achieving their goals in life later.

This study recommends utilization of the Herth Hope Index in every female prison. Determining the level of hope helps the prison authority to support offender's assertiveness on keeping their sanity and participation in the rehabilitation programs. The Index can be accustomed to as a standard operation procedure (SOP) at the admission arrangement, used to test candidates before parole or to assess the efficiency of rehabilitation programs after some time.

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