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## A Study on Cross Co-Integration of Indian ADRs between BSE & NYSE

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### ***Abstract***

*The present study empirically investigates the dynamic linkages between American Depository Receipts (ADRs) and their respective underlying stock returns of Indian stock market. Study analyzes daily data from April 1<sup>st</sup> 2010 to 31 March 2014 by applying a vector error correction model, impulse response function and variance decomposition. The empirical result shows that both underlying stocks and ADRs are level stationary and long-run equilibrium relationship exists between them. The study looks into the price interdependence of 10 Indian companies, which have floated American Depository Receipts (ADRs). The strong correlation between the prices of the dually listed stocks is corroborated by the finding of bidirectional causality in a vector auto regression model. The competing domestic stock exchange, viz, National Stock Exchange (NSE) too is found to share the same bidirectional relation scrip wise with the NASDAQ/New York Stock Exchange.*

***Keywords*** : ***BSE, NYSE, ADRs, Stock, Indian stock market***

### **I. Introduction**

In this competitive business world, if there is absence of any frictions like capital control or illiquidity or differential tax structure, data should flow into both the markets at the same time. However, in non-synchronous settings like NYSE/NASDAQ in the US and BSE in India, various issues of market efficiency are profound. They are price transmission and price discovery beckon investigation. On any calendar day, the Indian market opens first and the US market is the last to close. Therefore, if markets are efficient, the ADRs should react to new market-wide information in India when US markets are closed and vice-versa. If the exchange rate remains approximately constant over time, an upward (a downward) movement of the underlying assets will move up (down) the corresponding ADR's price. On a given calendar day, Indian markets close first. Therefore, if the two markets are fully efficient and the prices of underlying shares truly affect the prices of ADRs, then the underlying shares would be reflected in ADR prices (as well as price changes) in the same calendar day. However, the previous trading day should not affect the ADR. An upward (a downward) movement of the underlying stock coupled with an appreciation (a depreciation) in INR/USD rates will exert greater pressure on that particular Indian ADR to move up (down). Thus, while ADRs seemingly under react to information on underlying securities and overreact to information on their own lagged values in gradual diminishing magnitude, this is not the case

with market indices. The price gap between ADRs and local shares is often exploited by international hedge funds that take positions in both ADRs as well as underlying shares. The lower liquidity of ADRs leads to even smaller purchases or sales resulting in big price swings, said a merchant banker. This study envisages the relationship between the price volatility in BSE and NYSE.

### Aim of the Study

The core aim of the research is to find out the volatility of share prices movements in Bombay Stock Exchange and New York stock Exchange with respect to listed Indian companies.

### II. Research Methodology

The share prices from BSE, ADR prices from NYSE, were collected for the companies such as HDFC, ICICI bank ltd, Wipro ltd, Infosys ltd, Tata motors ltd and from 1<sup>st</sup> April 2010 to 31<sup>st</sup> March 2014. The active trading days summed to 965 days. Along with share prices, intra-day open, close, adjusted closing price, forex rate and inter-bank rates were collected from different sources such as yahoo.com (finance), oanda.com and moneycontrol.com. The currency conversion rate from Euro to INR, US \$ to INR were calculated along with IBR+1%. Volatility spill-overs are identified with vector-error correction model (VECM) and GARCH models.

### III. Price Dependencies

In the next stage, the research investigates the daily price discovery process by exploring the stochasting trend between Indian NSE and NYSE prices for six securities based on the threshold vector error correction model (TVECM). The co linearity variation between these markets is studied. Foreign exchange rates and Inter Bank Rates are included as heteroscedasticity variables to identify the volatility mechanism between these markets. A Vector Error Correction Model (VECM) can lead to a better understanding of the nature of any non stationary among the different component series and can also improve longer term forecasting over an unconstrained model. If NSE and NYSE (Indian ADRs) prices are co-integrated, then causality must exist in at least one direction. Threshold vector error correction model (TVECM) is used to identify the bidirectional causality.

$$\Delta Y_t = a_y z_{t-1} + \sum_{i=1}^p b_{yi} \Delta Y_{t-i} + \sum_{i=1}^p c_{yi} \Delta X_{t-i} + \varepsilon_{y,t} \quad \dots (1)$$

$$\Delta X_t = a_x z_{t-1} + \sum_{i=1}^p b_{xi} \Delta Y_{t-i} + \sum_{i=1}^p c_{xi} \Delta X_{t-i} + \varepsilon_{x,t} \quad \dots (2)$$

Whereas  $\Delta X_t$ , is the output series from NSE prices and  $\Delta Y_t$ , is the output series from NYSE (Indian ADR) prices.  $b_{yi}$ ,  $c_{yi}$ ,  $b_{xi}$  and  $c_{xi}$  represents the short-run coefficients.  $\varepsilon_{y,t}$  and  $\varepsilon_{x,t}$  are residuals. The speed of adjustment in long-run equilibrium due to market information is determined by the coefficients  $a_x$  and  $a_y$ . When these coefficients are high, adjustment is rapid. Table-1 displays the estimates of the adjustments coefficients obtained by TVECM using equation (1) and (2) and 'F' statistic value.

**Table -1: TYEECM Values Variance**

Scrips	Dependent: NYSE prices		Dependent: NSE prices	
	VCM Co-efficient	F' statistic value	VCM Co-efficient	F' statistic value
Infosys Ltd	0.98	9.490	0.93	3.090
ICICI Bank Ltd	0.92	25.280	0.88	4.340
Tata Motors Ltd	0.91	23.040	0.87	2.840
Wipro Ltd	0.97	19.340	0.92	7.820

The error correction is significant in both equations, suggesting a bidirectional error correction. However the error correction in the ADR equation (Dependent – NYSE price) is greater in absolute term than that of the NSE equation. This indicate that if the co-integrated series is in disequilibrium in the short run, it is the NSE price that makes greater adjustment in order to reestablish the equilibrium. Hence, it may be conclude that the NSE price leads the NYSE price in price discovery. The estimated values are tested with the 'F' statistic. The F-statistics is also significant. Hence there was a significant causality from NYSE to NSE prices but a very much more significant causality from NSE to NYSE prices. Even though there is a bidirectional causality, NSE prices are better predictors of the Indian ADR prices.

The significant relationship between NSE and NYSE (Indian ADR) prices are studied with the two-stage regression equation. Two stage regression estimation was established with NYSE(Indian ADR) price (weights: US\$- INR conversion rate) as dependent variable, NSE adjusted closing price as predictor, and NSE opening and closing prices as instrumental variables for all the securities in the sample. The summated regression is tested with 'F' test. The table-2 shows the regression equation, the beta co-efficient value and significance of 'F' value at 95% confidence level (df-964).

**Table -2: Regression Equation on NSE Prices**

Scrips	Regression Equation	Beta Co-efficient	F- statistic
Tata Motors Ltd	NYSEp *fx = 30.635+1.025(NSEp)	0.997	Significant
Wipro Ltd	NYSEp *fx = 40.119+1.169(NSEp)	0.932	Significant
Infosys Ltd	NYSEp*fx = -431.453+1.398(NSEp)	0.944	Significant
ICICI Bank Ltd	NYSEp*fx = -3.004+0.560(NSEp)	0.989	Significant

Note: fx - foreign exchange currency conversion rate (US\$ to INR)

Since the beta co-efficient is greater than 0.9, the estimation of NYSE(Indian ADR) prices by NSE prices stands good with the instrumental variables ‘opening and closing prices’ of the stock on the same day. The results clearly portrays that the NYSE (Indian ADR) prices can be inferred from the NSE prices of that security. The beta co-efficient is greater than 0.9 for all securities, which implies that the prediction is possible. The estimated values are also significant at 95% confidence level for all scrip’s in the sample.

**IV. Volatility Mapping**

Using the multivariate GARCH model, the pattern of information flow between the NSE and NYSE price is examined. The multivariate GARCH can be expressed as follows:

$$\begin{pmatrix} H_{11,t} & H_{12,t} \\ H_{21,t} & H_{22,t} \end{pmatrix} = C'C + \begin{pmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{pmatrix} \begin{pmatrix} \varepsilon_{1,t-1}^2 & \varepsilon_{1,t-1} \varepsilon_{2,t-1} \\ \varepsilon_{2,t-1} \varepsilon_{1,t-1} & \varepsilon_{2,t-1}^2 \end{pmatrix} + \begin{pmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{pmatrix} \begin{pmatrix} H_{11,t-1} & H_{12,t-1} \\ H_{21,t-1} & H_{22,t-1} \end{pmatrix} + \begin{pmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \end{pmatrix}$$

Whereas  $H_{11,t}$  and  $H_{22,t}$ , are the conditional variances of the first and second serial orders.  $H_{12,t}$  and  $H_{21,t}$  are the conditional covariance between the two series. The  $C_{ij}$  are elements of a 2x2 symmetric matrix of constants  $C$ . The elements  $a_{ij}$  of the symmetric 2x2 matrix  $a_i$  measure the degree of innovation from market  $i$  to market  $j$ . The elements of  $b_{ij}$  of the symmetric 2x2 matrix  $b_j$  indicate the persistence of conditional volatility between NSE and NYSE (Indian ADR) prices. The values of  $b_{11}$ ,  $b_{22}$ ,  $b_{12}$  and  $b_{21}$  for six company prices at NSE and NYSE are listed in Table-8

**Table-3: Price Dependencies**

Scrips	Dependent variable: NYSEp		Dependent variable: NSEp	
	$a b_{11}$	$a b_{12}$	$a b_{21}$	$a b_{22}$
ICICI Bank Ltd	0.945	0.41	0.192	0.781
Infosys Ltd	0.966	0.42	0.099	0.943
Tata Motors Ltd	0.942	0.42	0.082	0.843
Wipro Ltd	0.914	0.44	0.111	0.870
<i>Average</i>	<i>0.942</i>	<i>0.42</i>	<i>0.121</i>	<i>0.810</i>

The elements  $b_{ij}$  of the symmetric matrix  $b_j$  in the equation (3) states that all of the estimated coefficients are significant. For both NSE and NYSE markets, average volatility persistence is high ( avg  $b_{11} = 0.942$  and avg  $b_{22} = 0.810$ ). Average spill over from NSE to NYSE prices is 0.412 ( avg  $b_{12}$ ). Average spill over from NYSE to NSE prices is 0.121(avg  $b_{21}$ ). The volatility spill over from NSE to NYSE is higher than that of the NYSE to NSE prices. Even though a persistent volatility over NSE and NYSE markets are bi-directionally, the spillovers from NYSE to NSE are weaker for all the six securities trading in both markets. The output of the analysis suggests that 1% increases NSE price volatility increase the NYSE (Indian ADR) price volatility by 0.412%. Hence, it may conclude that a 5% increase or decrease in NSE prices of the securities will leads to a change in NYSE (Indian ADR) price by 2% in the same direction. The results should be used with caution by considering the impact of good or bad news about the security.

## V. Findings and Conclusion

The results indicate that the prices of Indian ADR prices depend upon the share price prevailing in Indian markets for the respective scrips. But the Indian GDR prices in Berlin stock exchange does not depend on the share prices in Indian market. Exporters can invest in ADRs rather than GDR for a short-term period. There is a con-currency in predicting the ADR prices by prices in NSE. But there is no co-integration between the prices of GDR and NSE prices. Hence, the exporter can prefer ADRs instead of GDRs for short-term investment with the export proceeds. The 'spread' between the price movements of ADR and NSE price is estimated to be around 3%. The exporter has to identify the 'spread' in-order to decide about the time period of short-term investment. The 'spread' also changes according to changes in foreign exchange rate. However the leverage value of the 'spread' leads to hedge the loss in foreign exchange.



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## A Comparative Study on Entrepreneurial Intention of Business Management and Agriculture Students

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### **Abstract**

*Entrepreneurship is the driving force of socio-economic development of a nation. The objective of the present study is to understand the relationship between personality traits and entrepreneurial intention among the students of two different disciplines and to study the significant difference among these variables of business management students and agriculture students. To achieve the purpose of this study two hundred students were selected from a government higher education university, Tamilnadu, at random. The primary data was collected through a well structured questionnaire. The collected data was analyzed using "t" test and correlation coefficient. There was significant difference between the two student groups towards personality traits and entrepreneurial intention. The findings of this study also state that there was a significant relationship between the two variables for the business management students whereas there was no such relationship for the agricultural students.*

**Keywords:** *Entrepreneurial intention, Management students, Agriculture student's entrepreneurship.*

### **I. Introduction**

Entrepreneurial intention has emerged as a foremost construct within the entrepreneurship literature over the last few decades (Drennan, Kennedy, & Renfrow, 2005). Entrepreneurial intention defined as willingness of individuals to perform entrepreneurial behavior, to engage in entrepreneurial action, to be self-employed, or to establish new business (Dell, 2008; Dhose & Walter, 2010). It usually involves inner guts, ambition and the feeling to stand on one's feet (Zain, Akram & Ghani, 2010). An individual may have potential to be entrepreneur but not make any transition into entrepreneurship unless they have such intentions (Mohammad Ismail et al., 2009). Entrepreneurial intention deals with the inclination of a person to start an entrepreneurial activity in the future (Davidson, 1995). Bird (1989) defines intention as a conscious state of mind that directs attention toward a specific goal. Individuals with the intention to start a business not only have a propensity to start, but in addition, adopt a rational behaviour to reach their goal. Intentionality is, thus, grounded in cognitive psychology that attempts to explain or predict human behavior (Ponmani et al, 2014). An assumption commonly states that students of business administration have a higher propensity for entrepreneurship (Sexton and Bowman, 1986). Very little work, however, has been published to investigate this hypothesis, and there is also contrary evidence (Hostager and Decker 1999). In Indian context also this is identical. This idea is approached in Indian context. Entrepreneur psychological has attempted to characterize important variables such as personality,

attitudes, demography, and behavior as important measurement in the real entrepreneur practices (McClelland, 1961). Personality traits have direct impact on many entrepreneurial activities including the intention to launch a new business, success in business, and enhance entrepreneurial set up (Shaver & Scott, 1991). Krauss and Frese (2005) found that psychological traits are predictors of the entrepreneurial orientation. Thus, it is important to determine the entrepreneurial characteristics among students and which characteristics might influence them to be entrepreneurs (Taramisi Sama-Ae, 2009).

## **II. Literature Review**

Review of literature being mandatory for any research justification, the researcher did not fail in doing the same. Based on the review a research model has been designed as a value addition to the literature as depicted in Figure 1. The review is discussed in a nutshell below:

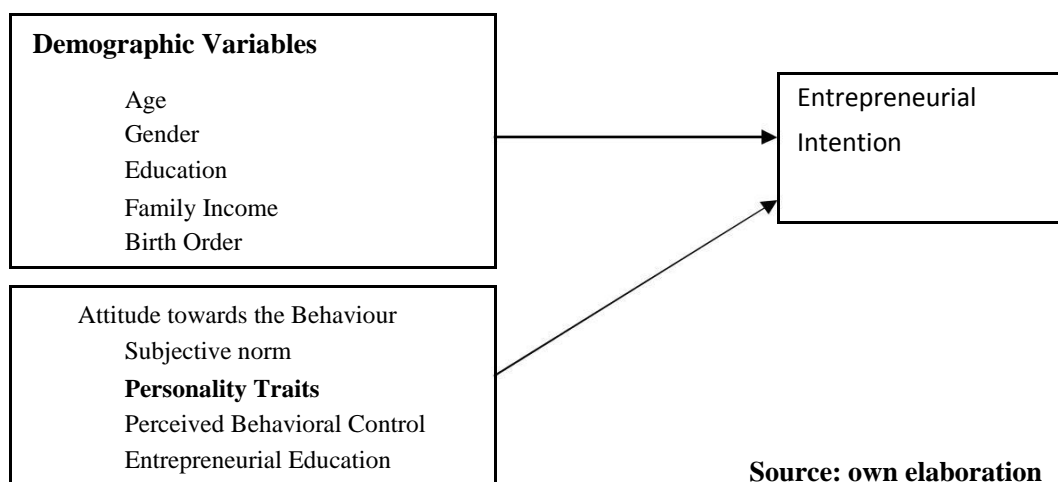
**Wolfgang Grassl, and Joseph Jones, (2012)** in their paper “**Entrepreneurial Intent among Students: Are Business Undergraduates Different? Investigated**” Entrepreneurial intent of students based on representative and independent samples of all students and of business students at St. Norbert College. Most studies in the United States have been undertaken on the campuses of state universities, with results that may not be valid for business students nationwide. In order to close this gap in the research literature, a survey was developed at St. Norbert College, a small Catholic college in Wisconsin. Through two identical questionnaires data were collected from a randomly selected sample of students of all disciplines and from business students. In order to measure the differences between these groups and also to provide a better picture of the latter group, these students were given additional questions. Intent is relatively weak among all students but significantly stronger among business students. The differences are due to motivational structures rather than situational variables.

**Moiz Mohammed and M.P Aparna, (2011)** in their paper titled “**Entrepreneurial Intentions of MBA Students – A Study in Hyderabad**” focuses- on entrepreneurship education, entrepreneurship intentions among students, the entrepreneurial self efficacy of the students and the perception / opinion of entrepreneurship among the students within an Indian setting. It is apparent that entrepreneurial- intentions in India continue to face limitations in terms of societal pressures and self efficacy constraints. Entrepreneurship education may mitigate these limitations for those respondents with entrepreneurial aspiration. In this way, entrepreneurship education can be positioned as an equalizer, possibly reducing the limiting effects of low self efficacy and ultimately increasing the chances for successful venture creation by motivating the students to take an entrepreneurship course.

Lee Wei Ni et al, (2012) in their research thesis titled “**Entrepreneurial Intention: A Study among Students of Higher Learning Institution**“investigated that Students entrepreneurial intention may be affected by different factors. Entrepreneurial intention is found to determine students’ willingness to engage into entrepreneurial behavior in future. The main objective for this study is to understand how attitude toward the behavior, subjective norm and perceived behavioral control, entrepreneurship education and personality traits affect entrepreneurial intention of undergraduates. The primary data of this study was gathered by distributing 200 survey questionnaires to respondents at University Tunku Abdul Rahman, Perak Campus. The Cronbach’s Alpha Reliability test which can ensure high reliability result was conducted on every variable. Pearson Correlation Coefficient and Multiple Linear Regression Analysis were conducted in this study to observe independent variables (i.e. attitude toward the behavior, entrepreneurship education and personality traits). All the variables have significant relationship with entrepreneurial intention. Independent Sample T-test is used to test on personal details (i.e. gender differences and family background) of respondents in opposition to dependent variable (i.e. entrepreneurial intention). Usually, individuals do not start a business as reflex, they do it intentionally rather than engage it accidentally (Krueger et al., 2000; Krueger, 2007).

According to **Krueger (2007)** intention serves as mediating factor between entrepreneurial action and potential exogenous influence (traits, demographics, skills, social, cultural and financial support). They suggested that entrepreneurial intention helps in explaining the reasons on why certain individuals tend to start own business before opportunity scan or deciding type of business to involve in. They stated that entrepreneurs themselves should benefit from a better understanding of their own motives, intention affords them a chance to understand what factors drive them to make their decisions to pursue entrepreneurial career and how the venture becomes reality. (Lee Wei Ni et al, 2012)

**Figure 1. Research Model**



**Source: own elaboration**

### III. Methodology

Descriptive research design was exploited in the study. The study used both primary and secondary data. Secondary data were collected from books, journals, internet, published and unpublished papers. Primary data were collected with the help of well designed structured questionnaire on the basis of questionnaire designed in the work done by **Lee Wei Ni et al, (2012)** in their research project

**“Entrepreneurial Intention: A Study Among Students Of Higher Learning Institution“** . The questionnaire was divided into two sections namely Part A and Part B. Part A consists of respondents’ demographic profile; Part B consists of two independent variables (attitude toward the behavior, and personality traits) and dependent variable (entrepreneurial intention). There are 5 to 6 questions for each variable. The questionnaire was pre-tested on a sample of 60 and necessary changes were incorporated. For the present study, probability simple random sampling was administered and a sample of 200 students was included in the main study from the population of students. The total sample was of 100 business management students and 100 Agricultural students.

### IV. Analysis and Discussion

**Table No 1: Mean, S.D and Correlation Coefficient of Business and Agricultural Students on Personality Traits and Entrepreneurial Intention**

Variables	Subjects	Mean	Std.Deviation	‘r’ value	Remarks
Personality Traits	Business Administration Students	57.38	8.275	0.312*	Significant
Entrepreneurial Intention		92.38	9.66		
Personality Traits	Agricultural Students	48.56	7.40	0.066	Non-Significant
Entrepreneurial Intention		120.17	9.78		

**Table No 2: Mean, S.D and ‘t’ ratio of Business and Agricultural Students on Personality Traits and Entrepreneurial Intention**

Variables	Subjects	Mean	Std.Deviation	‘t’ value	Remarks
Personality Traits	Business Administration Students	120.17	9.78	6.59*	Significant
	Agricultural Students	92.21	9.74		
Entrepreneurial Intention	Business Administration Students	48.56	7.40	8.01*	Significant
	Agricultural Students	57.38	8.27		

The results of the study exhibited in table no 1 shows that there was significant relationship between personality traits and entrepreneurial intention for the business administration students (0.312) whereas there was no significant relationship between the said variables for the agricultural students (0.066). This implies that the business management students have personality traits that were more related towards entrepreneurial intention. The findings of the study showed in table no 2 indicates that there was significant difference between both the student groups towards the personality traits (6.59) and entrepreneurial intention (8.01). This implies that both the business management students and agricultural students have different idea towards their personality traits and entrepreneurial intention. This is in accordance with the research conducted by **Wolfgang Grassl and Joseph Jones, (2012)**. Their study identified that the business management graduates had more entrepreneurial intension than all other students studying in different disciplines. The doctoral thesis conducted by **Lee We Ni et al (2013)** identified that personality trait of undergraduate business management students as a variable have significant relationship with entrepreneurial intention. The present study also endorsed the findings of **Shaver & Scott, (1991)**.

## V. Conclusion

In the present setting of economy, India needs to create more job givers than job seekers. The educational institutes and policy makers have a greater responsibility to design an education base in the secondary education itself which need to create and enhance the entrepreneurial interest in youth. This should get further developed and fructified by the higher education. Apart from business management discipline every sector of educational discipline should be acquainted with entrepreneurial avenues for students. So that graduates can identify their entrepreneurial destination once they complete their graduation. Education system should make entrepreneurship as a mandatory subject of study to inculcate the interest in students from beginning, so that it may not lead the students to a vague position in their choice of future career. This kind of researches can serve as a one of many ways to identify the entrepreneurial intention and the personality traits of students which influences the entrepreneurial intention. The complications faced by students in taking entrepreneurship as a career choice can be studied in future which will prepare the future students desiring entrepreneurship as their career.

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## Assessment and Comparison of Service Quality of Regional Rural Banks and Co-operative Banks in catering to the need of Rural Mass in Western Odisha

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### **Abstract**

Although a great number of research studies for service quality in commercial banks had taken place in the developing countries like India, the similar studies in the context of rural areas are limited. This descriptive study focuses on the issue of assessment of service quality of regional rural bank (RRB) and cooperative banks in catering to the need of rural masses of the Western Odisha i.e., Bargarh and Sambalpur District. In line with the above stated purpose, this paper used the popular multi-itemed rating scale namely SERVQUAL (developed and modified by Parasuraman et al in 1985,1988, 1991 and 1994) to assess the quality of service rendered by the selected banks.

**Key words: Service quality, SERVQUAL, RRB, Cooperative banks**

### **I. Introduction**

Globally, the story of banking has much in common, as it evolved with the moneylenders accepting deposits and issuing receipts in their place. In Odisha the beginning of commercial banking was made in the early part of the twentieth century with the establishment of the Puri Joint Stock Bank in the year 1909. Subsequently, two other banks, namely, the Cuttack Joint Stock Bank and Jagannath Bank were established in the year 1913 respectively. But prior to the incorporation of commercial in Orissa, the co operative societies were established to meet the need of the rural mass. The first cooperative society was set up in banking subdivision of Cuttack district in 1903.

At the time of independence in 1947 the banking system in Odisha was poorly developed with seven no of commercial banks operating in the state. But soon after the passing of banking regulation act of 1949, expansion of banking facility was encouraged in the state but remained highly inadequate, haphazard, and lopsided. The available data reveals that there were nine scheduled commercial banks in Odisha and these banks had total 14 no of bank offices in the state as on December 1949.

During this period commercial banks mostly concentrated their activities in urban and semi urban areas. They made very little effort to expand their activities into rural areas, where about 92% of the total population of the state lived. Keeping this imperative need of extending the banking activities into the rural areas with a view to promote banking habit among the rural people the nationalization act was introduced in 1969. Following this act, greater expansion of banking facilities become possible in Orissa.



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In 1976, regional rural banks as a hybrid of co-operatives and commercial banks emerged in the state in the shape of PuriGramya Bank. By the end of 1979 five districts namely ,Puri, Sambalpur , Cuttack and Koraput have been covered by four such banks. The total no of branches of regional rural banks has increased from 72 in 1977 to 155 by the end of the year 1979. The primary objective of these regional rural banks is to promote the standard of living of rural people in Orissa. For this reason they extended credit to small and marginal farmers, agricultural laborers, and other co-operative societies. They also grant loans to rural entrepreneurs and small traders.

In order to improve the performance of RRBs, the government in 2005 initiated the process of amalgamation of RRBs with their sponsored banks in a phased manner. As a result of this by the end of 2009, the number of regional rural banks in Orissa is reduced from 9 to 5. Presently Odisha is floated with 4281 branches of banks of which 2637 are public sector commercial bank Branches including 951 of regional rural banks and 343 branches of cooperative banks.

Now the need of the hour is to build up competitiveness through enhanced service quality, thus making the bank more market oriented and customer friendly. In this context quality of service provided by banking sector is very important and serves as a competitive weapon to determine the profitability of their business.

## **II. Literature Review**

In the study made by Lewis in 1991, a comparison of customer's expectations and perceptions of service quality for banks were made. Through his study, it was concluded that in spite of the existence of very high expectations of service quality from banks, high level of perception towards service was also received by the customers.

In an another study made by Berry & Parasuraman in 1991 it is observed that high quality service gives credibility to the marketing activity, stimulates favorable word-of-mouth communications and enhances customers' perception of value, and by boosting the morale of employees and customers' alike.

In 1997 Yavas, Bilgin and Shemwell through their study entitled "Service Quality in Banking Sector in an Emerging Economy; A Consumer Survey" revealed a positive relationship of good service quality with consumer satisfaction and long term commitment of the customers to the bank.

In 2000 Walfried M. Lassar, Chris Manolis, Robert D. Winsar in their research entitled "Service quality perspectives & satisfaction in Private banking" assessed the effect of service quality on customer satisfaction from two distinct methodological perspectives. The study concluded that in banks service quality is operationalised via two distinct & well- known measures i.e., survival and technical functional quality.

In 2003 Gain and Bhatt performed a survey on banks in India in the area of customer expectations and perceptions in relation to service quality. The study concluded that the service quality of foreign banks figures high while as the service quality of Indian banks is low in comparison to them.

In 2007, Sharma S., et al. through their study compared the perception of customers towards the service quality of public & private sector banks. They observed that service quality was positively linked with customers' satisfaction.

Keep and Taap in 2009 through their study entitled "Determining the Relative Importance of Critical Factors in Delivering Service Quality of Banks: An Application of Dominance Analysis in SERVQUAL Model" tried to find out relative importance of different dimensions of service quality among the customers of commercial banks. The study has concluded that reliability is most expected in banking services while tangibility has least important for the customers.

Jain and Gupta (2012) in their study on customer perception of Service Quality in commercial banking found that Reliability and responsiveness are the most prominent factor for determining the service quality of a bank.

Review of literature reveals that over the past decade, researchers have focused more on service quality of Commercial banks whereas research focusing on the Regional rural banks and co-operative banks operating in rural parts of India are limited.

So it is in light of this back ground, this study endeavors to examine the service quality of regional rural banks and co operative banks functioning in Bargarh and Sambalpur district of Odisha as the population in this region is comparatively well educated and has been availing banking services actively over few decades.

### **Objective of the study**

This study has been brought out with following objectives:

- i. To evaluate the service quality of regional rural banks and co operative banks functioning in the rural areas of Bargarh and Sambalpur district
- ii. To compare the service quality across these banks
- iii. To identify the areas which need improvement so that the quality of service of these banks can be enhanced

### III. Research Methodology

Two banks were selected for the study, of which one is the regional rural bank (Utkala Gramya Bank) and the other is a Cooperative bank (Sambalpur District Cooperative Central Bank Ltd). Data from 120 customers of each of these banks are collected using convenience sampling. To measure service quality the sample respondents were served with SERVQUAL questionnaire containing 22 expectation and 22 perception items. This questionnaire is pretested and revised for minor changing in words. A portion of the questionnaire is refined through back translation process. The respondents were requested to record their expectation and perception of the respective banks using a seven point likert scale.

#### Demographic profile of the respondent

Out of 120 sample respondents 70% were male and 30% were female respondents. In terms of age group, 57 percent respondents were in the age group of 31-45, 32 percent were in the age group of 45-60 and only 11 percent were below the age of 30. Educational status of the respondents indicates that 60% of total respondents were graduates, 33.4% were post-graduates and only 6.6% respondents were educated up to secondary level. In terms of occupation, salaried group formed the highest portion with 61.66% respondents, 23.34% belong to Businessman, and 15% of the respondents belong to professionals.

#### Concept of service quality

Conceptually service quality is defined as how well the service meets or exceeds the customer expectation on a consistent basis. The difficulty however, is that service quality unlike the product quality, is more abstract and elusive because of features unique to services: intangibility, inseparability, heterogeneity and perish ability. The aspects of service quality can be better understood in terms of these five constructs- tangibles, reliability, responsiveness, assurance and empathy. The respective meaning of each dimensions are given below:

Dimension	Definition
Tangibility	Appearance of physical facilities, equipment, personnel, and communication materials
Reliability	Ability to perform the promised service dependably and accurately
Responsiveness	Willingness to help customers and provide prompt service
Assurance	Knowledge and courtesy of employees and their ability to convey trust and confidence
Empathy	Caring, individualized attention the firm provides its customers

#### IV. Results & Discussion

The measurement according to SERVQUAL instrument is done as follows:

##### Formulation 1: Average Gap Score Computation

$$AGS_i = \frac{GS_{D_i}}{n_i} = \frac{\sum_{t=1}^n (E_t - P_t)}{n_i}$$

Here,  $AGS_i$  represents average gap score for dimension  $i$  and  $n_i$  is the number of statements in dimension  $i$ .  $GS_{D_i}$  represents gap score for dimension  $i$ ,  $E_t$  is expectation for statement  $t$ ,  $P_t$  is perception for statement  $t$ , and  $i = 1, 2, \dots, 5$  and  $t$  depends on the number of statements across dimensions.

##### Formulation 2 : Average Un-weighted Gap Score Computation

$$AUWGS = \frac{\sum_{i=1}^n AGS_i}{n_i}$$

Here,  $AUWGS$  represents average un-weighted gap score and  $n_i$  is the number of dimensions.

To calculate the weighted average SERVQUAL score for each of the five dimensions of service quality, the gap score for each dimension are multiplied with their respective weight as stated by customers.

**Table-1 Calculation of SERVQUAL scores in case of Utkala Gramya Bank**

Dimension	Statement	Expectation score	Perception score	Gap score	Average for dimension
Tangibility	T1	5.29	4.91	0.38	0.42
	T2	4.71	4.36	0.35	
	T3	4.92	4.50	0.42	
	T4	5.36	4.81	0.55	
Reliability	R5	5.61	4.76	0.85	0.73
	R6	5.43	4.93	0.50	
	R7	5.52	4.51	1.01	
	R8	5.19	4.72	0.47	
	R9	5.96	5.12	0.84	
Responsiveness	RP10	4.82	4.13	0.69	

	RP11	4.76	4.32	0.44	0.52
	RP12	5.21	4.72	0.49	
	RP13	5.34	4.86	0.48	
Assurance	A14	4.62	4.12	0.50	0.50
	A15	5.87	5.38	0.49	
	A16	5.56	5.18	0.38	
	A17	5.92	5.28	0.64	
Empathy	E18	5.06	4.91	0.15	0.28
	E19	4.82	4.56	0.26	
	E20	5.81	4.98	0.83	
	E21	4.46	3.96	0.50	
	E22	4.72	4.46	0.26	
Unweighted average SERVQUAL score					0.49

**Table-2 Calculation of SERVQUAL scores in case of Sambalpur District Cooperative Central Bank Ltd**

Dimension	Statement	Expectation score	Perception score	Gap score	Average for dimension
Tangibility	T1	4.34	3.12	1.22	1.52
	T2	4.19	3.06	1.65	
	T3	5.17	3.21	1.71	
	T4	4.83	3.86	1.50	
Reliability	R5	5.52	3.91	1.61	1.47
	R6	5.68	3.82	1.86	
	R7	5.30	3.76	1.54	
	R8	5.23	3.81	1.42	
	R9	5.86	4.91	0.95	
Responsiveness	RP10	4.67	3.91	0.76	

	RP11	4.92	3.76	1.16	1.22
	RP12	4.82	3.35	1.47	
	RP13	4.92	3.41	1.51	
Assurance	A14	4.46	3.21	1.25	1.03
	A15	5.68	5.24	0.44	
	A16	5.24	3.61	1.63	
	A17	5.76	4.96	0.80	
Empathy	E18	4.89	3.61	1.28	0.96
	E19	4.48	3.93	0.55	
	E20	4.82	3.42	1.40	
	E21	4.06	3.36	0.70	
	E22	4.12	3.21	0.91	
Un weighted average SERVQUAL score					1.24

It can be inferred from Table-1 and Table-2 that the average un weighted gap score of Utkal Gramya Bank is only 0.49, whereas the average gap score of Sambalpur District Cooperative Central Bank is 1.24, which is more than 2.5 times that of the Utkal Gramya bank. It is also seen that in all the dimensions the gap score of Utkal Gramya Bank is higher than that of Sambalpur District Cooperative Central Bank. So, regional rural banks have to improve immensely in order to meet the expectation level of customers with regard to the service quality dimensions.

### Assigning weights

Putting points against each of the five dimensions is very critical and tactful because the amount of weights represents how much each of these dimensions is important to the customers. The questionnaire has a separate page asking to put relative weights against each dimensions. The points against each dimension is totaled and averaged to normalize it. Total 100 points has been allocated among these five dimensions as stated below that have been calculated considering respondents view point on it:

**Table-3**  
**SERVQUAL importance weights**

Sl no	Dimension	Points
1	Tangibility	15.72
2	Reliability	27.00
3	Responsiveness	17.30
4	Assurance	26.80
5	Empathy	13.18
Total		100.00

**Calculation of weighted score**

**Formulation 3 :** Weighted Gap Score Computation

$$WGS = \sum_{i=1}^n AGS_i \times w_i$$

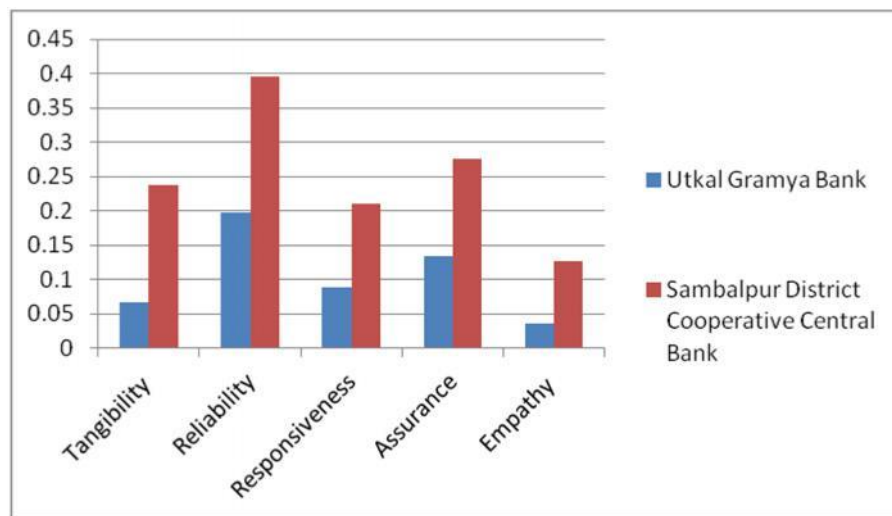
Here, WGS represents weighted gap score and  $w_i$  is the respective weight for dimension  $i$ .

To calculate the weighted average SERVQUAL score for each of the five dimensions of service quality, the gap score for each dimension are multiplied with their respective weight as stated by customers.

**Table-4**  
**Weighted average gap score of Utkal Gramya Bank and Sambalpur District Cooperative Central Bank**

Dimension	Utkal Gramya Bank			Sambalpur District Cooperative Central Bank		
	Average gap score	Importance weight	Average weighted gap score	Average gap score	Importance weight	Average weighted gap score
Tangibility	0.42	0.1572	0.066	1.52	0.1572	0.238
Reliability	0.73	0.2700	0.197	1.47	0.2700	0.396
Responsiveness	0.52	0.1730	0.089	1.22	0.1730	0.211
Assurance	0.50	0.2680	0.134	1.03	0.2680	0.276
Empathy	0.28	0.1318	0.036	0.96	0.1318	0.126
Average weighted score			0.104	Average weighted score		0.249

source: Field survey

**Graph-1: Comparison of gap score across various dimensions for RRBs and Co-operative Banks**

It can be inferred from the above table that the total weighted gap score of Utkal Gramya bank is only 0.104, where as it is 0.249 in that of Sambalpur District Cooperative Central Bank. In terms of all the dimensions of quality i.e., tangibility, reliability, responsiveness, assurance and empathy, Utkal gramya bank has scored less gap score in comparison to Sambalpur District Cooperative Central Bank.

## V. Conclusion

In the above study it is seen that the perception of service quality is not meeting the expectation of customers with respect to all its dimension. Probably they can have a relook on the dimensions of service quality to meet the expectation level of customers. From the above study following suggestions can be made for the improvement of service quality of bankers.

Utkal Gramya Bank followed by Sambalpur District Cooperative Central Bank has to make significant improvement on tangibility aspects like personality of employees, ambience and legibility of forms.

As far as reliability aspect is concerned maximum improvement has to made by Sambalpur District Cooperative Central Bank followed by Utkal gramya bank. In this regard banker should practice to keep up promises to customers especially in time- liness of the transaction, sincerely solving the customer problems and maintaining error free records.

Considering the responsiveness dimension, Utkala gramya bank followed by Sambalpur District Cooperative Central Bank have to make significant improvement by concentrating on aspects like encouraging employees to give prompt services by recognizing the customers need.



With regard to assurance, Utkal gramya bank followed by Sambalpur District Cooperative Central Bank have to concentrate on aspects like giving proper training to employees so that they can instill necessary confidence in their customers.

When empathy dimension is taken, Utkal Gramya bank followed by Sambalpur District Cooperative Central Bank have to make improvement by concentrating more on aspects like giving individualized attention to all the customers and by understanding their specific needs.

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## Demographic Profile and Customer Loyalty: A Study on Organized Retail Sector

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### **Abstract**

*The growths of India's organized retail industry and to survive in today's competitive business scenario, retailers are searching means to achieve competitive advantage through increased customer loyalty. In light of this, the present study enlightens how customer loyalty is affected by demographic profile of customers in organized retail sector. A total of 224 completed questionnaires obtained from the active mall shoppers were used for statistical analysis. Exploratory factor analysis was employed for variable reduction and factor identification. Further attempt has been made in this study to disclose the importance of demographic variables when evaluating retail customer loyalty.*

**Key words:** *Customer loyalty, Organized retailing, Mall shoppers*

### **I. Introduction**

India is currently the twelfth largest consumer market and the Indian retail industry is the fifth largest in the world. With continued economic expansion and retail growth, India is set to become a US\$ 450 billion retail market by 2015. The present value of the Indian retail market is estimated by the India Retail Report to be around Rs. 12, 00,000crores (\$270 billion) and the annual growth rate is 5.7 percent. Furthermore around 15 million retail outlets help India win the crown of having the highest retail outlet density in the world.

The Indian retail market is highly fragmented and was dominated by numerous numbers of unorganized retailers in the form of independent, owner managed shops. But gradually the India Retail Industry is inching its way for new formats such as departmental stores, hypermarkets, supermarkets and specialty stores and introducing the Indian consumer to a shopping experience like never before. These formats of retailing are basically the components of organized retailing which refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax, etc. These include the corporate-backed hypermarkets and retail chains, and also the privately owned large retail businesses.

Presently the organized retail industry is evolving into an exceedingly competitive scene, with retail players fighting for a share in the customers' minds and hearts. In light of this, enhancing the customer loyalty has long been accepted as the most basic marketing tool for retailers to make a differentiation in the market and gain competitive advantage for better customer acquisition and retention.

### **1.1. Relevance of customer loyalty in Organized retailing**

Pearson (1996) has defined customer loyalty as the mindset of the customers who hold favourable attitudes toward a company, commit to repurchase the company's product/service, and recommend the product/service to others. In other words, customer loyalty is the degree to which a customer exhibit repeat purchasing behaviour from a service provider possesses a positive attitudinal disposition toward the provider, and considers using only this provider when a need for this service exists.

Customer loyalty is an indispensable performance measurement tool for profit as well as non-profit organizations to sustain competitive advantage (Kotler, 1998) and to enhance business/service performance measures. Therefore, loyalty is essential for the organization because it is cheaper to retain its old customers than to find new customers; in addition to this customer retention is linked to the company's profit. Customer loyalty (or the absence of it) is exhibited both through customer behaviour and also through attitude. Customer loyalty is concerned with the likelihood of customer returning, making business referrals, providing strong word-of-mouth references and publicity (Bowen and Shoemaker, 1998). Loyal customers are less likely to switch to a competitor due to price inducement, and these customers make more purchases compared to less loyal customers.

Loyal customers are a key to any retail business. Often it is argued that, an environment needs to be maintained and the store staff should be trained to spot the loyal customers and get aligned to their needs. Loyal customers are the insurance which a store always needs. It is extremely important for them to know, recognize and reward those loyal customers to increase their sales and market share in view of this ever growing competition.

## **II. Literature review**

Jacoby and Kyner (1973) defined customer loyalty as a biased (i.e. non-random), behavioural response (i.e. purchase), expressed over time, by some decision making unit, with respect to one or more alternative brands out of a set of such brands, and was a function of psychological processes.

Dick and Basu (1994) discovered that loyal customers were less motivated to search for alternatives, were more resistant to counter-persuasion from other brands, and were more likely to pass along positive word-of-mouth communication about the service to other consumers.

Reichheld (1996) opined that some customers were inherently more loyal than others. He introduced a loyalty coefficient which helps in understanding customers' predispositions to being loyal.

In 1998 Mittal and Lassar concluded that in service industry the relationship between satisfaction and loyalty was asymmetrical: while dissatisfaction nearly guarantees switching, satisfaction does not ensure customer loyalty.

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Rowley and Dawes (1999) reviewed the theoretical work on customer loyalty and identified that loyalty has both attitudinal and behavioural elements. Antecedents to loyalty include cognitive, affective and cognitive factors.

Stevens (2000) found that the relationship between competition and customer loyalty becomes more intense as the level of competition rises, especially in the services sector where there is a wide range of choices and rapidly emerging innovative products and services.

Ball *et al.* (2006) showed that the effect of service personalization on customer loyalty exists, but the effect was not all direct. Personalization works through improving service satisfaction and trust.

Ganguli and Kumar (2008) explored the drivers of customer satisfaction and loyalty among retail store customers. They found that neither customer satisfaction nor loyalty was affected by parking. Satisfaction and loyalty was mostly influenced by quality of service and trust worthiness.

Siddiqi (2010) focused on the interrelationships between service quality attributes, customer satisfaction and customer loyalty in the retail banking sector in Bangladesh. He ascertained that all the service quality attributes were positively related to customer satisfaction and customer satisfaction was positively related to customer loyalty in the retail banking settings in Bangladesh.

### **Literature gap**

Literature presented above reveals that limited number of research has been conducted to explore and investigate the relationship of demographic profile on customer loyalty in Indian context. In light of this, through this study attempt has been made to put new lights into the issue of loyalty by establishing a relationship between demographic profile and loyalty perspective of customers in organized retailing.

### **Research objectives:**

This study has been framed with specific objectives mentioned as under:

To identify the key factors influencing the Customer loyalty in Organized Retailing.

To study the relationship of demographic profiles of customers over loyalty in organized retailing.

### **III. Methodology**

#### **Data source:**

This study is mainly based on the primary data. Secondary data is only used for the development of the research framework. A structured questionnaire is used as the main tool for data collection.

#### **Sampling design:**

For the purpose of the study, opinions from 224 customers are collected covering major commercial and residential areas of Bhubaneswar city.

**Demographic profile of the Sample respondents:**

Demographic Profile of the sample (n=224) are presented in table-1 as below.

**Table-1**  
**Demographic profile of the Respondents**

Variable		Frequency	Percentage
Gender	Male	139	62.0
	Female	85	38.0
<b>Total</b>		<b>224</b>	<b>100</b>
Age	Below 25	79	35.2
	25-35	65	29.0
	36-50	47	20.9
	51-60	33	14.9
<b>Total</b>		<b>224</b>	<b>100</b>
Occupation	Salaried/Pensioner	71	31.6
	Self employed	61	27.2
	Professional	47	21
	Student	45	20.2
<b>Total</b>		<b>224</b>	<b>100</b>
Qualification	HSC	9	4.0
	Intermediate	14	6.2
	Graduate	112	50.0
	Post graduate	89	39.8
<b>Total</b>		<b>224</b>	<b>100</b>
Income	Below Rs. 20,000	78	34.8
	Rs. 20,000-50,000	130	58.1
	More than 50,000	16	7.1
	<b>Total</b>	<b>224</b>	<b>100</b>

*Source: Primary Data*

It is revealed from the data presented in table-1 that out of total 224 numbers of sample respondents 139 (62%) are male and rest 85 (32%) are female. In terms of age group, highest 79 (35.2%) number of respondents belong to the age group of below 25, followed by 65 (29%) belong to the age group of 25-35, 47 (20.9%) belong to the age group of 36-50 and only 33 (14.9%) belong to the age group of 51-60. Likewise occupation wise classification reveals that highest 48 (31.6%) number of respondents are Salaried/Pensioner, followed by 41 (27.2%) are self employed, 32 (21%) are professional and only 31 (20.2%) are student. In terms of educational qualification, out of total 224 numbers of respondents, 112 (50%) are graduates, 89 (39.8%) are post graduates, 14 (6.2%) are intermediates and only 9 (4.0%) are qualified up to HSC level. Finally in terms of monthly income out of total 224 numbers of respondents, 130 (58.1%) fall under the income group of 20,000-50,000, followed by 78 (34.8%) in the income group of less than 20,000 and only 16 (7.1%) are having the income of more than 50000.

#### **Survey Instrument:**

A questionnaire was used to collect the data from the sample respondents. A five-point scale was used to elicit responses to the questionnaire indicating their level of agreement (1= Extremely Unlikely to 5= Extreme Likely). The questionnaire also contained questions to solicit demographic information of the respondents. The questionnaire is pretested and revised through reverse translation process for minor change in wordings.

#### **Statistical tools and techniques used:**

SPSS (Statistical Package for Social Sciences) version 20.0 is used to compute and analyze the data. The statistical tests used in the analysis of data included exploratory factor analysis and ANOVA. ANOVA(Analysis of Variance) has been used to determine whether these factors were influenced by the demographics or not.

### **IV. Analysis and Discussion**

#### **Analysis 1 :To identify the key factors influencing the customer's perception of the service quality in Organized Retailing.**

To identify the key factors influencing the customer's loyalty in Organized Retailing, an exploratory factor analysis is used to reduce the number of variable into definite number of factors associated with customer loyalty in Organized Retailing. The factor analysis is performed using principal component extraction method with Varimax rotation.

#### **Sampling adequacy:**

In order to establish the strength of factor analysis, the sampling adequacy is checked using Kaiser-Meyer-Olkin (KMO) test and the results are presented in the table-2 given as below.

<b>Table-2: KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.505
Bartlett's Test of Sphericity	Approx. Chi-Square	113.112
	df	21
	Sig.	.000

From the Table 2, it can be seen that KMO value was acceptable, as its value found to be 0.505 which is indicative of a data set considered to be desirable for factor analysis. The overall significance of the correlation matrix is checked using Bartlett's test of sphericity and it is found that the chi-square Value is 113.112 and the p Value as computed is 0.000 which supports the validity of the factor analysis. For further investigation, three factors having eigen value greater than one are extracted. The eigen Value of the five factors along with their cumulative percentage of variance explained is shown in table-3.

**Table-3: Total Variance Explained**

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.550	22.138	22.138	1.550	22.138	22.138
2	1.492	21.319	43.457	1.492	21.319	43.457
3	1.085	15.502	58.959	1.085	15.502	58.959

The result of the factor analysis using principal component method shows that 58.959% of the total variance is explained by classifying these 7 variables into 3 factors. The percentage of the total variance which is used as an index to determine how well the factor solution accounts for what the variables together represent.

<b>Table-4: Rotated Component Matrix<sup>a</sup></b>			
	Component		
	1	2	3
The personnel of retailers are filled with professionalism		-.091	<b>.878</b>
I would like to buy from this retail shop only		<b>.711</b>	-.208
This store is my first preference for shopping		<b>.701</b>	.027
I would like to visit this retail shop again and again		<b>.507</b>	-.154

The employee of the retail respond caringly to my problems	.057		<b>.816</b>
The merchandise I buy from this retailer is of consistent quality	-.316		.159
The quality of merchandise at this retail store consistently meet my expectation	-.072		.474
<b>a. Rotation converged in 4 iterations.</b>			
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization. <sup>a</sup>			

After extracting the number of factors the rotated component matrix is used to interpret and name the factors.

The first factor F1 having two significant factor loadings can be named as “Quality” and is responsible for 22.138per cent of the variance. The second factor F2 having three significant factor loadings related to the policy of retailer can be named as “Emotion” which is accounted for further 21.319 variance. The third factor F3 having two significant factor loadings stands for “Trust” and constitutes for an additional explained variance of 15.502 per cent.

**Analysis-2: To study the effect of selected demographic variables on various service quality dimensions in Organized Retailing**

Keeping the importance of demographic variable while evaluating the loyalty in non-professional service like retailing, Analysis of Variance had been used to determine whether these factors were influenced by the demographics or not.

**Table-5  
Effect of Age on Customer Loyalty**

<b>Factors</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Quality	24.544	3	8.181	9.070	.000
Emotion	7.375	3	2.458	2.508	.060
Trust	4.989	3	1.663	1.678	.173

**\*Significant at 5% level of significance**

Result of Analysis of Variance shown in table-5 represents that age has an influence over Quality as the calculated p-value of .000 is less than 0.05, rest all factors had no influence on age i.e. people from both the genders perceived the rest of the two factors as same (as the calculated p-value of .000 is greater than 0.05).



**Table-6**  
**Effect of Gender on Customer Loyalty**

Factors	Sum of Squares	df	Mean Square	F	Sig.
Quality	3.633	1	3.633	3.677	.056
Emotion	.622	1	.622	.621	.431
Trust	.966	1	.966	.965	.327

**\*Significant at 5% level of significance**

Result of Analysis of Variance shown in table-6 represents that Gender has no influence over Quality as the calculated p-value against all the factors is greater than 0.05.

**Table-7**  
**Effect of Occupation on Customer Loyalty**

Factors	Sum of Squares	df	Mean Square	F	Sig.
Quality	.653	2	.326	.324	.723
Emotion	4.161	2	2.081	2.101	.125
Trust	2.154	2	1.077	1.078	.342

**\*Significant at 5% level of significance**

Result of Analysis of Variance shown in table-7 represents that Occupation has no influence over Quality as the calculated p-value against all the factors is greater than 0.05.

**Table-8**  
**Effect of Income on Customer Loyalty**

Factors	Sum of Squares	df	Mean Square	F	Sig.
Quality	3.633	1	3.633	3.677	.056
Emotion	.193	1	.193	.192	.661
Trust	1.457	1	1.457	1.460	.228

**\*Significant at 5% level of significance**

Result of Analysis of Variance shown in table-8 represents that Occupation has no influence over Quality as the calculated p-value against all the factors is greater than 0.05.

**Table-9**  
**Effect of Qualification on Customer Loyalty**

Factors	Sum of Squares	df	Mean Square	F	Sig.
Quality	11.728	2	5.864	6.134	.003
Emotion	9.621	2	4.810	4.982	.008
Trust	7.465	2	3.733	3.827	.023

**\*Significant at 5% level of significance**

Result of Analysis of Variance shown in table-5 represents that Educational qualification has an influence overall the factors namely Quality, Emotion and trust as the calculated p-value of .003, .008 and .023 are less than 0.05.

## V. Conclusion

Customer loyalty has been proven to lead to increased customer retention and thus leads to effective cross and up-selling of a firm. As customer loyalty can be a cornerstone to retailing success, measuring loyalty of retail outlets is quite different from pure service setups, as retail stores offer the combination of services and products. Through the present study three dimensions of customer loyalty emerged using exploratory factor analysis. With the help of ANOVA, the effect of demographic variables on various loyalty dimensions was examined. Factor scores of customer loyalty were treated as the criterion variable and demographic characteristics were treated as predictor variables. P-value of less than 0.05 indicates the existence of some relationship between the two variables otherwise there is no relationship.

The findings in relation to the demographics have thrown some light to the retailers on the appropriateness of customer loyalty. Firstly, a significant relationship was found in the dimension of 'Quality' according to the age of respondents. But gender, Occupation and income have no significant relationship with any of the three dimensions explored through factor analysis. Finally, significant differences were found in all the three dimensions namely "Quality", "Emotion" and "Trust" according to the Educational Qualification of the sample respondents. Thus, a retailer should concentrate on these factors to develop and improve strategies or to make necessary adjustments in existing strategy to increase customer loyalty with their firm. Using factors evolved in this study, retailers can formulate

customized policies and redesign its marketing policy in order to increase new footfalls with retention of existing customers.

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## **The Effect of Knowledge Management and its Elements on Organizational Personnel Performance**

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### **Abstract**

*The establishment of knowledge management in organizations as an organizational strategy is necessary and pivotal. The essential factor for organizational success includes extensive organizational ideas like strategic, economic, behavioral and managerial innovations. Managing organizational knowledge is one of the most important organizational success factors in competitive and information era. The purpose of the study is to review the effect of knowledge management and its elements on personnel performance. It has an applied purpose and descriptive and correlation method and data is collected by questionnaire and survey method. Statistical population includes staff of combined cycle powerhouse of Yazd and accidental categorical sampling method was used among whom 116 samples were accepted. The data analysis was done via Structural equations and SPSS 18 and LISREL 8.72; the findings showed that knowledge production had significant effect on the performance of organization, and the relation between knowledge adoption and organizational performance was also proved.*

**Key words:** *knowledge management, knowledge adoption, knowledge sharing and transfer, knowledge production, knowledge reserve, personnel performance.*

### **1. Introduction**

Fast changes in methods of applying techniques and tools, energy sources and increasing the amount of investment in recent centuries made increasing variations in market structures; this variation and extensive domain of selection of “this or that” made a new and different condition for customers, but the level of forenamed developments were not congruent with the growth level of customers demand. It should be said that emerging new horizons in front of thinking and research methods, there are more expert levels. Expertise has made new tools in new era and new tools has made new conditions; therefore organizations have no choice but to constantly learn all key factors within and outside organization, and to identify, respond and fast and on time react regarding opportunities and environmental threats in the world full of change and turbulence enterprise, since they know that negligence to the increasingly competitive world of today would result in losing enterprise opportunities (Saeedi, 2010, 13). Managing organizational knowledge is one of the most important organizational success factors in competitive and information era. It is so much important that some current organizations assess and measure their own

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knowledge and refer to it as an intellectual capital of every organization and an indicator for rating and scaling corporations in their own reports. These institutions consider performing organizational knowledge management as a vital part of knowledge management and organizational approach, a vital and core part in organizational success, an extensive domain in organizational ideas including strategic, economic, behavioral and managerial innovations. In today world where producing goods and services are increasingly knowledge based, knowledge is a vital and key capital to win competitive advantage (Za'farian et al, 2008, p. 76).

Therefore, knowledge management shall be focused by managers in every organization. Regarding this, the study tries to answer this question: How does knowledge management and its elements in every organization would affect personnel performance of that organization?

## **II. Theoretical Framework**

### **2.1. Organizational Performance**

Currently the process of managing performance has a sublime status in organizational structure and shall be under supervision of the most supreme organizational position. Success in performing this process depends on constant assessment and evaluations and continuous improvement of organizational performance and its elements. Regarding fast changes, increasing capabilities, competitive capacities of companies and corporations in today world, the utility and acceptance of every single member and element of any organization is so important for managers. Assessing companies and corporations' performance is so complex based on their different organizational purposes, the variety of activity setting and different and impossible natures of them (Qeysari, 2011, 30-31).

### **2.2. The Concept of Knowledge Management**

There are more than 7000 valid scientific articles published in recent decade about organizational knowledge management every one of which dealt with the issue from a special point of view and approach. Experts believe that 1980s was the decade of quality movement and 1990s was the decade of renewed engineering (improving the process and condition of enterprise and decreasing costs) and current decade is knowledge management decade. As Peter Drucker says the challenge of the first 50 years of third millennium is knowledge productivity in organizations that is applicable via knowledge assessment (Mir Shafei, 2008). Knowledge constructing effectively improves problem solving, dynamic learning, strategic planning and decision making. Knowledge management focuses on identifying, explaining and organizing knowledge and increasing its value through reuse. Knowledge management emphasizes on using knowledge to make competitive advantage and corporative dynamism and mobility in the current increasingly changing environment. The importance of factors like capital, work force and land is decreased due to accessibility and the possibility of substitution and knowledge is the most important source of production and pioneering factor. Managers shall identify the locations of knowledge in every

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organization and plan strategies to use available knowledge through which clerks can access their needing knowledge (Seyd Javadin et al, 2012).

### **2.2.1. The Emergence of Knowledge Management and its Evolution**

Plato defined the concept of knowledge management for the first time as the true proved belief (in 1953). Knowledge, in this definition, is something which people believe and value based on organized and meaningful aggregate of information via experience, communications or inference (Anvari Rostami and Shahaee, 2009, 4).

In summary there are four general factors in emerging knowledge management:

Changing industrial enterprise model in which capitals of an organization were mainly tangible and financial (production facilities, machines, land and so on) to organizations in which main capitals were intangible and intermixed with knowledge, expertise, capability and management for making personnel creative. Since professionals came to this conclusion that they should control and value their capitals, there began a period in which competitive advantage were based on knowledge and its effective application.

Great increase in information load, its electronic saving, and increasing access to information all added the value of information, since information are valuable only through knowledge and knowledge itself gets a high value, since it approaches action and application. Information makes no decision by itself, but changing information into knowledge is based on humans that become decision and action.

Changing the age pyramid of population and demographic features which is mentioned in just few sources. Many organizations understood that great amount of their knowledge are to retire. The increasing awareness is that if there is no appropriate measurement and action, the major part of this knowledge and expertise would exit the organization easily.

The more expert activities may result in losing organizational knowledge and expertise due to personnel transfer or dismissal (Sinotte, 2004).

Initially knowledge management was considered from technology viewpoint and considered it a technology; but organizations gradually understood that to truly use personnel skills, they need something beyond information management. Humans are located in center of development, execution and success of knowledge management in contrast with technology and electronic aspect, and this human factor is the distinctive aspect of knowledge management from similar concepts like information management.

### 2.2.2. Knowledge Management Elements and Parts

Reviewing current articles in knowledge management shows that there are many offered models in this regard. Many experts defined knowledge management in the framework of multistep process (Za'farian et al, 2008, 78). For example, Wiig (1997) considers the main purpose of knowledge management as “easing creation, storage, sharing and application of knowledge to make an organization which acts intelligently”. Wiig cycle of knowledge management determines the method of knowledge creation and application by personnel or organizations and it involves four main steps: knowledge creation, knowledge protection, knowledge sharing and knowledge application (Hashemi, 2010, 193). Newman (1999) offered a general model of knowledge that organized knowledge in 4 domains: knowledge creation, knowledge protection, knowledge sharing and transfer and knowledge application (Kazemi Nejad et al, 2010, 56). Regarding Forcadell and Guadamillas (2002), this process involves knowledge creation, knowledge storage, knowledge distribution and knowledge application which make a cycle themselves which is called the cycle of knowledge management (Musa Khani et al, 2007, 223). Precise review of every one of these models show that its steps are similar to each other; only some experts focused on it more comprehensively and completely (Hashemi, 2010, 194). Therefore there are four steps in knowledge management model of the study: knowledge creation, knowledge sharing and transfer, knowledge storage and knowledge application.

#### Knowledge Creation

Knowledge creation is the behaviors regarding entrance of new knowledge into system that has extensive domain like discovery, acquaintance, evocation, develop and close link with behavior which is called innovation (Kazemi Nejad et al, 2010, 56).

Therefore, the first hypothesis is as follows:

Hypothesis (1): Knowledge creation had significant effect on personnel performance.

#### Knowledge Sharing and Transfer

Knowledge transfer involves a set of activities to transfer organizational knowledge among members. Activities like discussion meetings to suggest experiences and executive methods, interest and participation of members to cooperation and helping colleagues to improve executive methods, use databases and suggest organizational knowledge for all members which show the amount of organizational attempt to transfer knowledge (Taghizade et al, 2010, 39-40).

Therefore, the second hypothesis is as follows:

Hypothesis (2): Knowledge sharing had significant effect on personnel performance.

### Knowledge Storage

It is a process wherein valuable organizational experiences would be determined, identified and store in frame of organizational memory (Zamani, 2012). Therefore, the third hypothesis is as follows:

Hypothesis (3): Knowledge storage had significant effect on personnel performance.

### Knowledge Application

Knowledge application is the main and central element in knowledge management process. From Knowledge-based viewpoint, personal and organizational knowledge values are latent and hidden in its application due to its implicit nature. Innovation demands input application and mix of special and specific knowledge from many different domains. Deeper application of knowledge helps organizations to constantly change their organizational expertise into products or services. Due knowledge application decreases personal errors and mistakes or improve their performance and decrease repetitive or redundant works. Organizations may finally be capable of making new process or managerial systems (Buru and & Ranjbari, 2009, 52).

Therefore, the fourth hypothesis is as follows:

Hypothesis (4): Knowledge application had significant effect on personnel performance.

Regarding theoretical bases and research hypotheses, the conceptual model is shown in Figure 1.

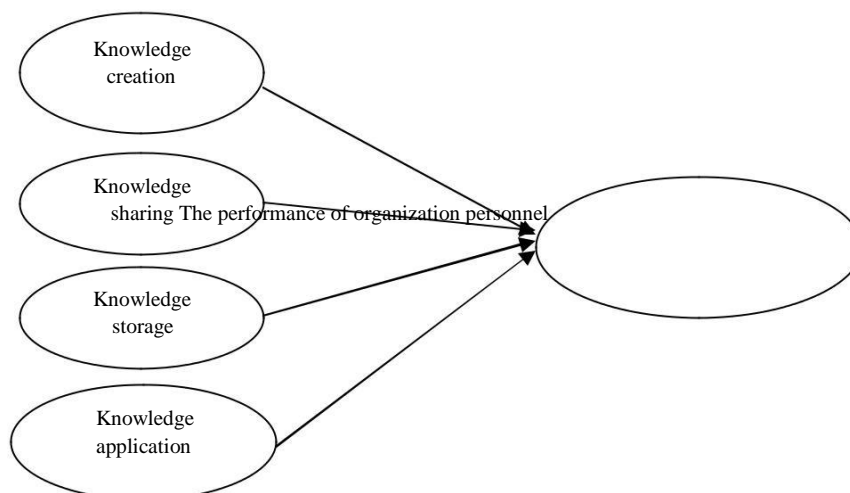


Figure 1: Conceptual Model of Research

### III. Research Methodology

It has an applied purpose and descriptive and correlation method and data is collected by questionnaire and survey method. Statistical population of the study include combined cycle powerhouse of Yazd personnel and sample size of 116 personnel were selected by Cochran Formula and accidental categorical sampling method was used.



Table 2: The summary of descriptive statistics regarding demographic features of respondents. Regarding Table 1, 116 people of sample size answered the questionnaire; 93 were men and 23 were women which shows 80% were men and 20% were women and 12% were single and 88% were married. Moreover, 63% had a BA, 28% had an MA, and 9% had an Associate's degree.

Table 2: Demographic Features

Variable	Group	Frequency	Percent
Gender	Male	93	80.2
	Female	23	19.8
Marital Status	Single	14	12.1
	Married	102	87.9
Education Level	Associate's degree	10	8.6
	BA	73	62.9
	MA	33	28.4

Table 3 shows the mean age if respondents were 34 years old and half of them were under 32; however, the youngest respondent was 25 and the oldest was 63. The mean working years experience was 10, the least was 2 years and the most was 40 years experience of working.

Table 3. Frequency Distribution of Age and Working Years Variables

Variable	Mean	Average	Mode	Standard Deviation	Minimum	Maximum	Number
Age	34.20	32	30	8.148	25	63	104
Working Years	9.64	8	5	7.384	2	40	98

Research tool was questionnaire which was taken from English articles and standard referred questionnaire was an International one; it was designed patterning from Likert Scale. Questionnaire was distributed and collected by the scholar himself in respondents' working place . After translating the questionnaire into Persian Language, reviewing its meaning and content and proving of experts, the scholar proved the questionnaire. Cronbach's alpha was measured to assess the reliability of the tool for every variables which were reviewed by questionnaire, as we seen in Table 1.

Table 4- Reliability Test Using Cronbach's alpha Coefficient

Variable		Symbo l	Number of questions	Cronbach's Alpha	Source
Personnel Performance		FE	15	0.914	Greenley & Lings (2005)
knowledge management (KM)	Knowledge creation	PK	8	0.931	Liebowitz & Suen (2003)
	Knowledge sharing	SHK	9		
	Knowledge storage	SK	6		
	Knowledge application	AK	4		
Whole Questionnaire			42	0.970	-

Since the Cronbach's alpha values were more than 0.7 for all sections of questionnaire, then we can say that our tool has an acceptable reliability.

#### IV. Data Analysis

Data was analyzed by SPSS 18 and hypotheses test and proving the relations was done by confirmatory factor analysis; the technique of structural equalities was done by LISREL 8.5.

We shall offer output of LISREL software and related analyses. Elliptical shapes show every factor separately and rectangles show measures (variables) regarding to every factor. We will offer measuring equations as much as observed variables. Every equation include path coefficient between an observed variable and latent variable, measurement error of observed variable and also its significance test based on T-value and  $R^2$  value, that is determining coefficient or set variance rate by a latent variable.

Before going through the hypotheses test, we shall test the accuracy of measurement model. Confirmatory factor analysis in the study was done by path analysis for significance test regarding factors. We shall be sure about the adaptability and desirable fitting of measurement model, before confirming structural

relations in model reviewing; to do so, we shall review the  $\chi^2$  statistic and other criteria of adaptability and desirable fitting of the model.

Figure 2 shows the model in state of significance numbers. Current numbers on the paths show T-value for every path. T-value statistic for all paths were more than 1.96 and therefore they were significant, but they were not significant for both paths.

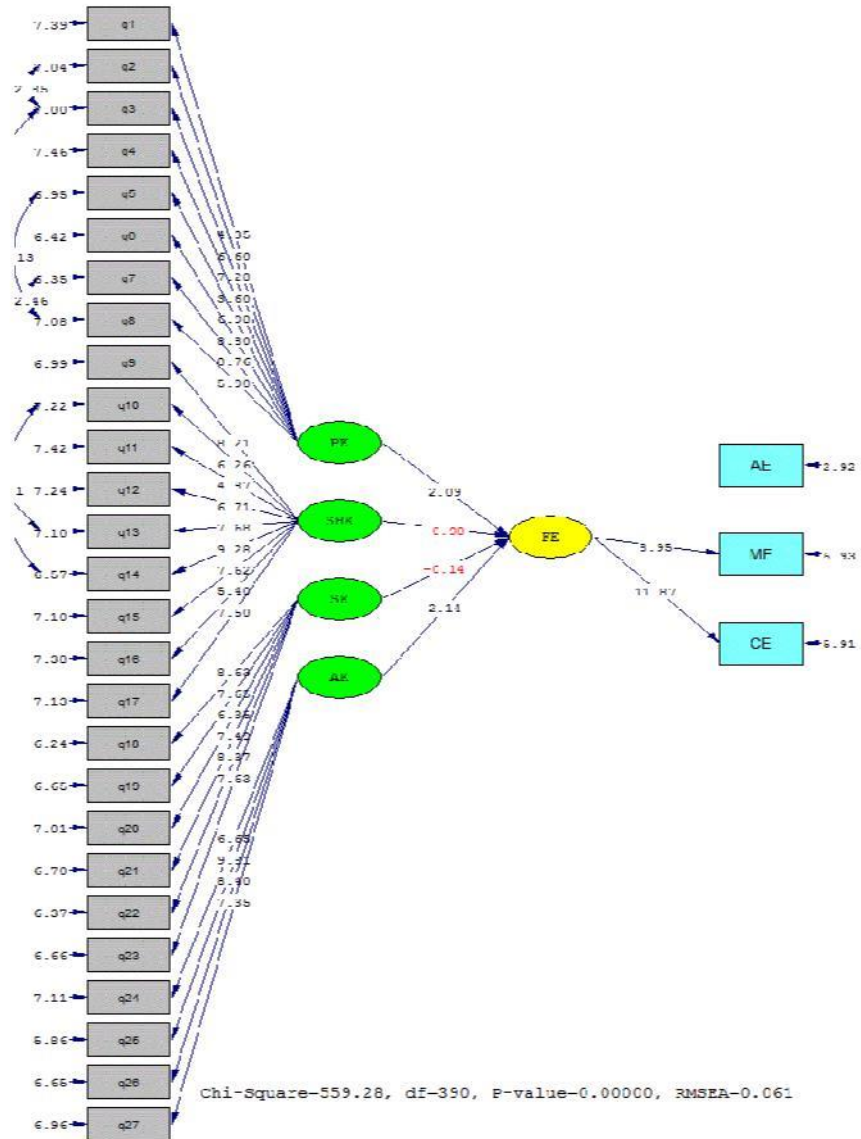


Figure 2: The model in state of Significant numbers (T-value)

Figure 3 shows the general model in standard estimation state. Estimation results (Below part of the shape) shows that the model is appropriate. Comparing observed, determining and latent variables is only possible in standard estimation state and standard state shows how much of variance regarding the latent variable was determined by observed variable.

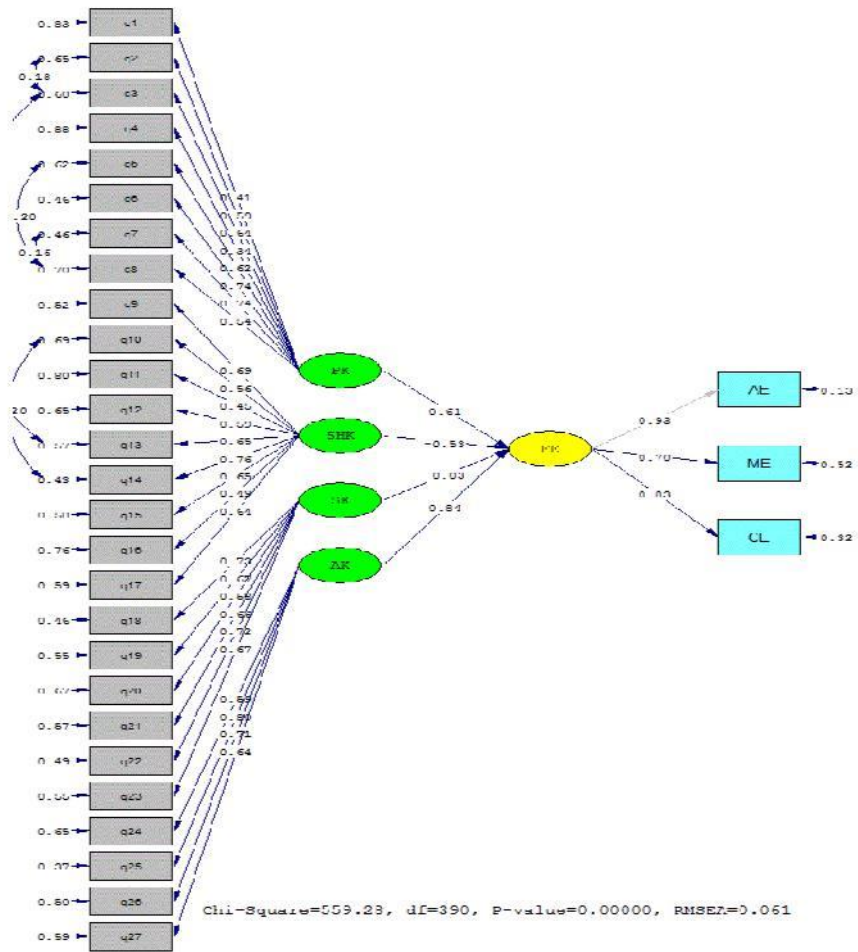


Figure 3: The Model in state of Standard Coefficients

Regarding the LISREL output, the  $\chi^2$  value to freedom degree is 1.43 and less than 3 which is an appropriate value. The low amount of this value shows that there is little difference between conceptual model of research and observed data. Moreover, the output shows that RMSEA= 0.061 for the model which is less than 0.08; in addition to  $\chi^2$  value, the less RMSEA index, the fitting of the model would be better.

Table 5: Fitting Review

Factors	Values
Chi-square	559.28
Freedom Degree	390
Chi-square to Freedom Degree	1.43
RMSEA	0.061
GFI	0.76

AGFI	0.71
NFI	0.91
NNFI	0.97
IFI	0.97
CFI	0.97

As we observe, the value of Chi2-square to freedom degree is less than 3. Moreover, the value of RMSEA is 0.061 and less than 0.08 and CFI, IFI, NNFI and NFI indicators are all more than 0.90 and GFI and AGFI value are close to 0.8. Therefore, we can say that model fitting is acceptable and proved.

Table 6: Results of Research Hypotheses Test

Hypotheses	T-statistic	Hypothesis Results	The rate of Effect
Hypothesis 1: knowledge creation had a significant effect on personnel performance	2.09	Proved	0.61
Hypothesis 2: knowledge sharing had a significant effect on personnel attitudes	- 0.98	Proved	-0.53
Hypothesis 3: knowledge storage had a significant effect on personnel protecting and guarding	-0.14	Proved	-0.03
Hypothesis 4: knowledge application had a significant effect on personnel competence	2.14	Proved	0.84

## V. Conclusion and Suggestions

Regarding the results achieved from hypotheses test (Table 5) and under study population (Personnel Combined Cycle Powerhouse of Yazd), we can say that there is meaningful relation between knowledge creation and personnel performance. As the value of T-statistic is 2.09 which is more than 1.96, that means knowledge creation had significant effect on personnel performance and the value of effect is 0.61 and positive (direct); in other words, increasing knowledge among personnel would improve their organizational performance.

Based on achieved results, the absolute value of T-statistic is 0.98 which is less than 1.96; in other words, knowledge sharing had no significant effect on personnel performance. Since the absolute value of T-statistic of knowledge storage and personnel performance is 0.14 and the hypothesis is disapproved, that means knowledge storage had no significant effect on personnel performance. Knowledge application had significant effect on personnel performance, since its absolute value of T-statistic is 2.14 which is more than 1.96 and its effect value is 0.84 and positive (direct); in other words, increasing knowledge application among personnel would improve their organizational performance.

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Delong and Fahey (2000) and MCDermott and o'dell (2001) also reviewed the effect of knowledge management on personnel performance.

Regarding the fact the human force shapes the infrastructure of intellectual capital and knowledge management, therefore we can suggest to managers that they held meetings and educational periods to increase the level of awareness and personnel information regarding knowledge management and help improve their performance; we may also suggest to identify personnel who have more and innovative intellectual capitals and are skilled and powerful in knowledge management, introduce them to others and persuade them; in this way, knowledge and idea creation would be a great value among organization members.

One the important setting for emergence, improvement and reinforcement of intellectual capitals and knowledge management in every organization is solving personnel problems, therefore knowledge management component shall be emphasized and implemented while personnel selection and employment. Organizations can make comprehensive plans and include knowledge component among criteria of staff employment who have high levels of intellectual capital and knowledge management success. Since knowledge creation and application had significant effect on personnel performance, therefore, regarding increasing capabilities and improving personnel performance, we can suggest the managers of combined cycle powerhouse of Yazd and similar companies and corporations to improve intellectual capital like communicative capital, structural capital and human capital, improve knowledge management components like knowledge storage, knowledge sharing and knowledge application, since the main secret of success in competitive current world which is based on knowledge is having capable human forces. Regarding the fact that the study was done in combined cycle powerhouse of Yazd, we can suggest future scholars do other studies regarding current variables in other corporations under supervision of Ministry of Energy to find better and more applicable strategies. It is also suggested that future scholars emphasize more on internal factors affecting intellectual capital, knowledge management and personnel performance like organizational structure and assessment systems. Scholars may review variables moderating the relation of intellectual capital and knowledge management with personnel performance, variables like industry, size of a company or the amount of investment in education and human forces improvement.

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## **Socio-economic Constraints on Energy Development Pathways: the Case of Nuclear Power in Baltic Countries**

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### **Abstract**

*Conventional engineering approach to energy planning is focused on technical properties of the energy system and, in some cases, cost optimization. However, the development of the energy sector is influenced not only by technical conditions and engineering decisions but also by a large number of social and economic factors which may have even more considerable impacts on the political decisions. Therefore, disregard of socio-economic constraints may cause a failure in providing sufficient information for decision makers. In this paper, considerations on the reflection of non-technical barriers in mathematical models for energy planning are presented and illustrated by the case of social acceptance of nuclear power in Baltic countries. Public acceptance of nuclear power is considered as one of important prerequisites of any nuclear power program. Therefore, results of ten different public opinion surveys and two referendums are discussed. There are certain grounds to argue that the incorporation of a wider set of social and economic constraints into the modelling of energy development and energy planning process as such would make valuable contribution to the quality of decision making. From research point of view, this would allow for creation of more plausible energy scenarios and, consequently, more accurate evaluation of their impacts on the society.*

**Keywords:** *nuclear power, social acceptance, energy planning, energy economics, economic externalities.*

### **I. Introduction**

Conventional engineering approach to energy planning is focused on technical properties of the energy system and, in some cases, cost optimization. However, the development of the energy sector is influenced not only by technical conditions and engineering decisions but also by a large number of social and economic factors which may have even more considerable impacts on the decisions that are taken in the political level. Therefore, disregard of socio-

economic constraints may cause a failure in providing sufficient information for decision makers.

In order to reveal the importance of principles used for reflection of socio-economic constraints in energy planning, this paper is mainly focused on the specific case of nuclear power in Baltic countries. Nuclear is a particular case in the context of the energy technologies due to several reasons. First of all, nuclear projects are relatively large and their implementation is almost unavoidably related to observable societal consequences. Second, despite of scientific evidence about small probability of severe accidents, nuclear accidents tend to attract public attention due to their large scale. Thus, especially in the context of small countries, nuclear-related decisions are not a part of everyday business activities. Moreover, in some cases these decisions turn into the central axis of a political discussion for several years or even decades as it happened in Finland or Taiwan.

Nuclear is considered as clean (especially in terms of CO<sub>2</sub> emissions) and reliable energy source. However, different areas of challenges to the development of nuclear power plants (NPPs) are highlighted in the literature: safety-related issues, waste management, proliferation risk, financial risks, and social acceptability (Karakosta, Pappas, Marinakis, & Psarras, 2013). The list can be further extended by adding certain aspects of political risks, the needs of specific know-how and human resources, etc. Most of these issues are not reflected in the models that are used for energy planning partly due to the fact that the occurrence of these barriers depends on factors which are outside of the model: the specifics of each particular nuclear project and the context in which it is going to be implemented. These constraints are affecting the development of the energy sector either directly (by causing changes in the energy system) or indirectly, via their impact on the decision-making.

### **Constraints on the energy development**

Changes in the energy sector are unavoidable in the dynamically changing environment. Therefore, the choice of an energy development pathway should be based on the careful ex-ante analysis of different alternatives and energy development scenarios which are comprised of intrinsic and extrinsic factors. In this complex situation mathematical models are seen as the tools which provide the opportunity to analyse the energy development scenarios. Despite of

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methodological approaches behind the model, modelling of energy development in principle belongs to the paradigm of normative economics which aims at “practical advice on economic policy questions” (Blaug, 1992). Energy planning models are oriented to the analysis of future situations, but forecasting appears not to be the main purpose of such models. As noted by Acuner et al. (2012), energy scenarios should not be treated as forecasts, inasmuch as their purpose is the development of a range of future development pathways taking into account certain assumptions rather than simple continuation of developments from past to future. Robinson, Willenbockel, and Strzepek (2012) also highlight the fact that their baseline scenario should not be treated as a forecast, since it is aimed at providing a counterfactual or a basis for comparison with other scenarios. Although different scenarios of the future are possible, this fact does not preclude modellers from the obligation to depict the situation system realistically.

Two types of energy planning models are usually distinguished: top-down and bottom-up models (Tarvydas, 2005). Essential difference between these two types is the emphasis which is placed either on detailed description of technical features of energy system (bottom-up models) or on theoretically consistent description of the general economy (top-down models) (Löschel, 2002). Consequently, different model types tend to depict different limitations (constraints) related with the energy development: bottom-up models are usually characterized by the rich technology description and realistic representation of any possible bounds on energy flows and capacities, while top-down models tend to concentrate on general economic constraints. Thus, both model types have their advantages as well as disadvantages (see, e.g., Bataille (2005) for a comprehensive review) which prevent from proper reflection of the reality in the pure form of a model. There exist attempts to create so called hybrid models which consolidate some properties of both top-down and bottom-up models (Hourcade, Jaccard, Bataille, & Ghersi, 2006). However, any model being just a reflection of the reality is not capable to integrate whole range of conditions that are or may be affecting the development of the energy sector.

Additional real-world conditions can be expressed in a model as various forms of constraints, but their choice has to be based on additional analyses that allow for the description of their properties and narrowing the area of possible assumptions. These conditions can be incorporated into an analytical model either directly or by using additional indicators which can be treated as approximations of systematic influence of several socio-economic constraints.

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As mentioned, the factors influencing the energy development can be intrinsic or extrinsic. The first group of factors can be controlled while factors in the latter one can be only treated as exogenous. The same factor may fall into different group depending on factor itself, coverage of the analysis, country peculiarities, etc., a good case in the last point being oil price: only some of the countries are able to make an impact on world oil prices either by affecting supply or demand. Looking from the prospects of a particular technology, changing electric utility marketplace environment or competing power sources can be seen as external factors affecting fusion energy development (Dean, 1999), but when the development of entire energy sector is considered, these issues fall into the group of intrinsic (endogenous) factors.

Depending on the circumstances, some barriers can be overcome or even transformed into advantages, among good cases in this point being impact of increasing carbon emission and fuel prices that might increase the economic attractiveness of nuclear power plants or successful operational experience that at some extent alleviates safety concerns. Therefore, these constraints have to be analysed in a systematic way, taking into account the fact that some of them can be caused by the energy development itself as it is the case with changes in labour supply-demand balance in a region due to large energy projects. Such cases limit the possibility to include socio-economic constraints into energy planning models directly or, at least, require some additional post-processing.

Moreover, many of possible constraints are subject of hardly measurable uncertainties and may not occur at all. Despite of this, the existence of such failure probabilities is used as a ground for one or another decision by decision-makers. Thus, the real barriers that obstruct the development of nuclear power or any other energy technology are related to the decision-making process and to the weights which are attributed to each particular decisions affecting factor. To put it more simply, let's consider widely acknowledged fact that nuclear causes some proliferation risk and nuclear waste management problems: despite of this some countries take decision to build new nuclear plants, while others do not. Risks are more or less similar, but decisions are opposite. This can be explained either by different risk perception of decision-makers or by different importance that is given for the particular factor.

In democratic society, public opinion is one of the most important determinants that affect nuclear-related decisions, since public acceptance is considered as almost necessary

precondition for implementation of a nuclear power program. This is especially important in the context of Baltic countries as the nuclear program requires close cooperation among different countries and public acceptance in all of them. The formation of public opinion is also based on weighting of perceived risks and benefits but this is done by society members with different attitudes and, consequently, different weights given to the factors (one person may be concerned only at economic externalities, while another can possibly pay equal attention on climate change and energy safety issues). Thus, social acceptance of nuclear power can be considered as an indicator which integrates both rational (evidence-based) and intuitive arguments about the particular energy source. However, as public acceptance may change during the lifecycle of a technology, it should not be used as a single argument in long-term energy planning.

## II. Research methodology

The research was performed using data from various public opinion surveys. In this paper, the results of 12 public surveys (2 of them were national-wide referendums) are discussed. The complete list of surveys analysed and their properties are presented in Table 1.

**Table 1. Public opinion surveys analysed**

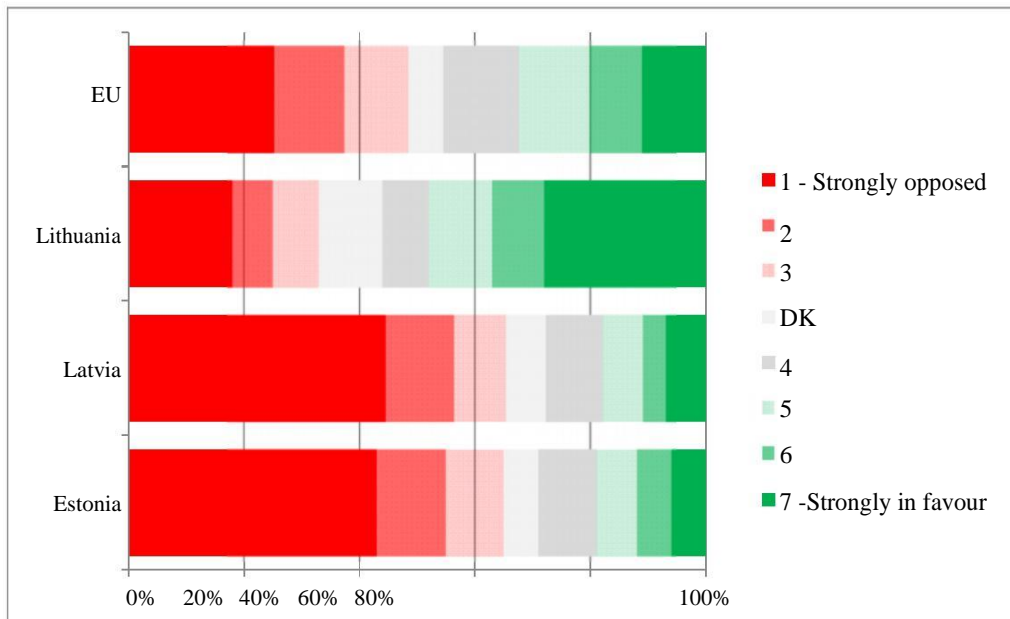
Survey	Year	Country	Number of respondents	Reference
SpecialEurobarometer 262. Energy Technologies: Knowledge, Perception, Measures.	2006	European Union, including Baltic countries	1000 in Estonia; 1002 in Latvia; 1025 in Lithuania	Euro barometer (2007)
SpecialEurobarometer 297. Attitudes towards radio active waste.	2008	European Union, including Baltic countries	1000 in Estonia; 1004 in Latvia; 1009 in Lithuania	Euro barometer (2008)
Referendum regarding the closure of Ignalina NPP	2008	Lithuania	1305825	VRK (2008)
RINOVA survey	2008	Lithuania	n.d.	Boločkaitė and Rinkevičius (2009)
SpecialEurobarometer 324. Europeans and Nuclear Safety.	2009	European Union, including Baltic countries	1003 in Estonia; 1006 in Latvia; 1026 in Lithuania	Eurobarometer (2010)
GfKpoll	2010	Estonia	493	ERR (2010)

WIN-Gallup International. (2011). Global Snap Poll on Earthquake in Japan and its Impact on Views about Nuclear Energy	2011	47 countries, including Latvia and Lithuania	503 in Latvia; 1000 in Lithuania	WIN-Gallup International (2011), Gabartas (2011)
Prime consulting survey	2011	Lithuania	500	veidas.lt (2011)
VAE survey	2011	Lithuania	n.d.	VAE (2012)
Referendum regarding the building of a new NPP	2012	Lithuania	1361082	VRK (2012)
KTU survey	2013	Lithuania	1187	Fuks (2013)
Baltijos tyrimai survey	2013-2014	Lithuania	1010	BNS (2014)

Beside two referendums, three surveys were conducted using Eurobarometer methodology which allows cross-country comparisons, while some of others are less statistically reliable, but despite of this can illustrate general trends at acceptable level.

### III. Results and discussion

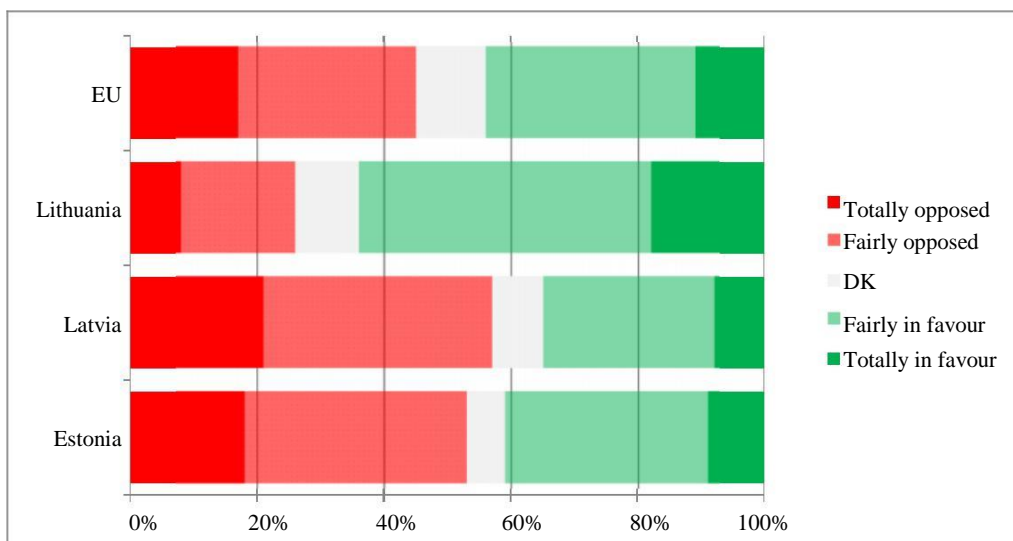
Public opinion regarding nuclear power was always diverse in the Baltic countries. Until the referendum regarding Visaginas NPP, Lithuanians tended to be enthusiastic, Latvians were sceptic, and Estonians' position concerning nuclear was somewhere in the middle. The results of several Euro barometer surveys regarding nuclear power in Baltic countries and whole EU are presented in Figures 1-3. The formulation of questions and possible answers was different in each survey; therefore, the values should not be directly compared. Nevertheless, they illustrate overall situation pretty well.



Data source: (Euro barometer, 2007)

Fig. 1. Public support for the nuclear energy use in 2006 (scale 1 to 7)

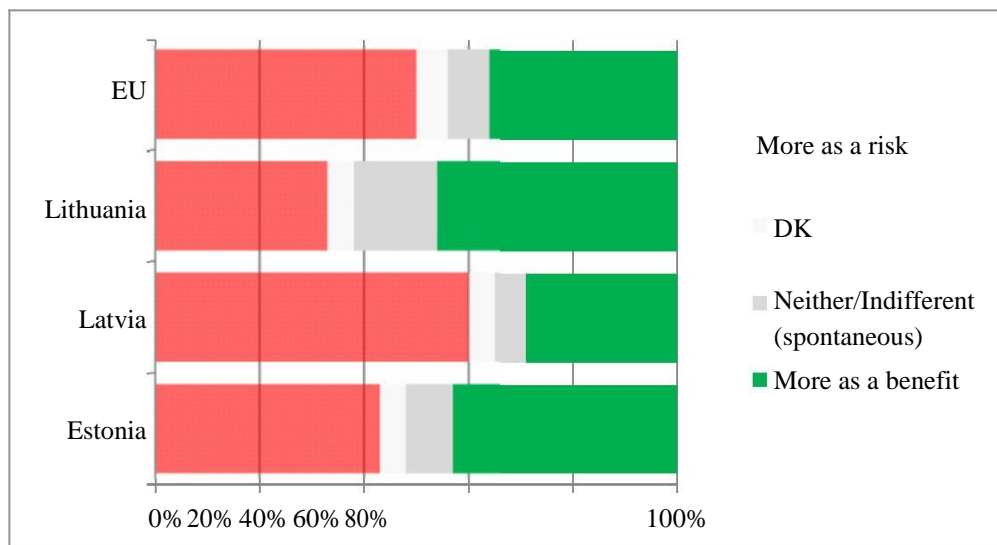
In 2006, nuclear energy use was supported by 48% Lithuanian, 19% Estonian, and 18% Latvian population. Among Baltic countries, only Lithuania was above the average nuclear support level of European Union which was 32%. Moreover, Lithuania was in the first place in EU by answer “strongly in favour” (28%), thus the support for nuclear energy could be considered as relatively big.



Data source: (Euro barometer, 2008)

Fig. 2. Public support for the nuclear use in 2008

The results of the survey which has been conducted in 2008 show even more support for nuclear. This trend is common for all countries analysed: nuclear was supported by 64% of people in Lithuania, 41% in Estonia, and 35 in Latvia. EU average was 44%. This common trend was probably associated with the increased fuel prices. In Lithuania, additional impact was brought by actualisation on nuclear-related questions due to referendum regarding extension of operation of the Ignalina Nuclear Power Plant.



Data source: (Eurobarometer, 2010)

Fig. 3. Personal risk/benefit perception of nuclear power in 2009

The last directly related to nuclear Euro barometer survey was published in 2010. Among others, it included a question about personal risk/benefit perception of nuclear power: “Personally, taking into account all that you know about this topic, thinking about you and your family, do you see nuclear energy more as a benefit or more as a risk?” In Lithuania more people considered nuclear as a benefit than a risk (46% to 33%), in Estonia both answers got 43%, while in Latvia only 29% of population considered nuclear as a benefit, while 60% called it a risk.

Above mentioned survey included a question about the preferable location of a new nuclear power plant (see Table 2), which can also be interpreted as an opinion about regional cooperation in the field of nuclear power.



Table 2. Opinions about the location of a new nuclear power plant in 2009

	If you had a possibility to choose the location of a new nuclear power plant, would you prefer ...?			
	(OUR COUNTRY) under the surveillance and control of (NATIONALITY) competent authorities	A neighbouring EU Member State, under the surveillance and control of their responsible authorities in line with EU legislation	A country outside the EU, under the surveillance and control of their responsible authorities as well as their own legislation	Don't know
Estonia	25	37	29	9
Latvia	14	28	47	11
Lithuania	34	37	16	13
EU	37	26	20	17

Data source: (Eurobarometer, 2010)

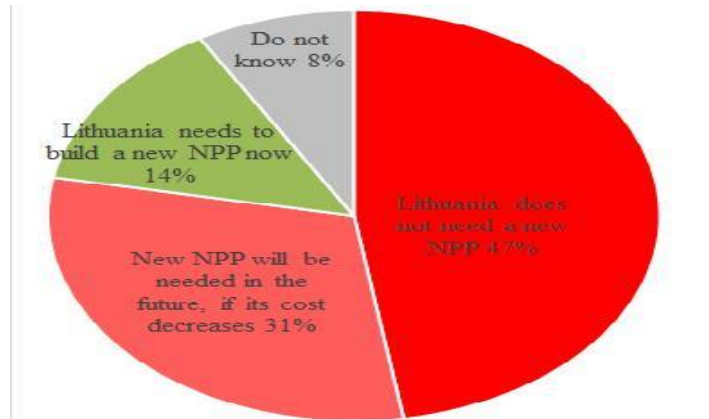
In general, the answer in this question is closely related with the current state of nuclear in a particular country: in countries with the experience of operating nuclear power plants people tend to express a certain level of trust in national laws and regulation, and would prefer to locate and control the plant in their own country. On the other hand, countries with no nuclear power plants and which record a high level of opposition to nuclear energy, tend to prefer a country outside the European Union, under the supervision and control of the responsible authorities and legislation of that country (Euro barometer, 2010). The latter case is evident in the results of Latvia, where 47% of people preferred nuclear power plant outside the European Union (thus, outside three Baltic countries).

More recent public perception trends of nuclear power can be drawn from the surveys that were conducted in the particular countries. According to a survey conducted by GfK, the opposition to nuclear power plant in Estonia was increasing from 60% in 2009 to 66% in 2010 (ERR, 2010). After Fukushima accident in 2011 this number increased to 81%. However, it has to be noted that the same survey also showed that 88% of the respondents would not agree to pay more for renewable energy (Tere, 2011).

From the survey of WIN-Gallup International it seems that Fukushima accident had only little impact on public views about nuclear power in Latvia: in principle, it increased opposition to nuclear power (36% before and 42% after Fukushima accident) due to decreasing number of

undecided people, while the number of nuclear proponents remained almost stable (54% before and 53% after Fukushima accident). However, Latvian survey was conducted by telephone and included only 503 respondents (WIN-Gallup International, 2011). Thus, general level of public acceptance fail to be as reliable as the level measured in the Euro barometer surveys that usually cover more than thousand respondents in Latvia. Similar survey in Lithuania has revealed that after Fukushima accident support for nuclear power fell from 31% to 25% (Gabartas, 2011).

In the recent years nuclear-related questions were frequently in the spot of public attention in Lithuania. Consequently, there are more data about public attitudes towards nuclear power available. Two referendums were organized in order to consult with society about the future of nuclear power in Lithuania. The first one in 2008 was devoted to the question about the extension of operation of the Ignalina nuclear power plant for a technically safe period, but not longer than completion of the construction of a new nuclear power plant. In this referendum participated a few percent less than half of people that have voting right and referendum lost its legal significance, but absolute majority (88.59% of turnout) participants approved the extension of operation of the Ignalina nuclear power plan with its old-type RBMK reactors (VRK, 2008). In the next referendum, which was organized in 2012, construction of a new nuclear power plant was considered. This time, referendum was successful in terms of participation, but only 34.09% of turnout supported nuclear power development. To sum up, the results of the first referendum were fully in line with strong support for nuclear which was evident from Euro barometer surveys presented above, but the second referendum in 2012 showed dramatic shift of public opinion against nuclear. It seems that Fukushima accident was not the main reason of this shift. The survey which was conducted for the journal "Veidas" by the agency "Prime consulting" before Fukushima accident showed that a large share of respondents was concerned about economic attractiveness of NPP (see Fig. 4).

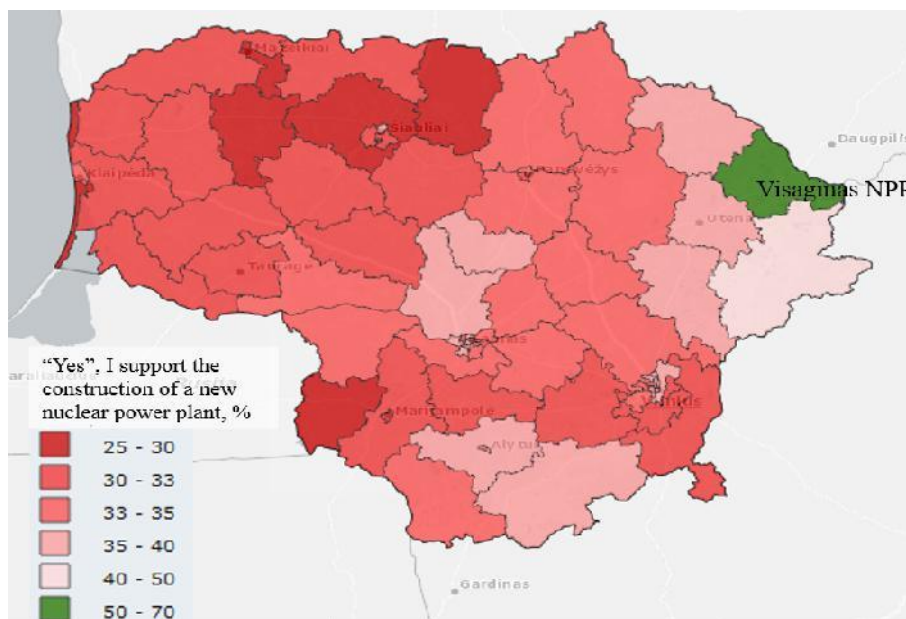


Data source: (veidas.lt, 2011)

Fig. 4. Public acceptance of nuclear power in Lithuania in 2011 (before Fukushima accident)

On the contrary, other surveys presented in Visaginas NPP business plan showed that even after Fukushima accident Visaginas NPP construction is supported by about 51% of Lithuanian population. Moreover, results of poll that was conducted in November, 2011 (more than half a year after Fukushima disaster) revealed that 58% of the population think nuclear energy being useful for the country (VAE, 2012).

Another point to argue that safety-related issues were not the main reason of failure in 2012 referendum is geographical spread of votes in the referendum, which is presented in Fig 5.



Data source: (VRK, 2012)

Fig. 5. Results of the referendum regarding the building of a new NPP in Lithuania

Fig 5 vividly illustrates the negative correlation between the destination to Visaginas (foreseen location of a nuclear power plant) and referendum results. To put it more simply, relatively more nuclear power plant supporters live near to its foreseen location. However, in the case of any accident these regions would suffer from the consequences of that accident. On the contrary, local communities could expect biggest economic benefits from the large investment in a new nuclear power plant, even in case it that investment is not attractive at country level. Therefore, there are certain grounds for supposing that economic issues were more important determinant of the inverse results of two referendums than nuclear safety issues.

This hypothesis is also supported by an older research which allows comparison of public opinion about different sides of nuclear projects. A detailed comparison of public attitudes towards old Ignalina NPP and the project of a new NPP is presented in Table 3.

Table 3. Public attitudes towards the symbolic meanings of old Ignalina NPP and new NPP (sum of answers “agree” and “fully agree”)

	Direction of the impact	Ignalina NPP	New NPP	Difference
Economic self-sufficiency of Lithuania	positive	71.2	68.1	-3.1
Energy independence	positive	71	68.6	-2.4
Radioactive waste treatment problem	negative	68.2	62.8	-5.4
Accident risk (due to technical failure, human mistakes, natural disasters)	negative	52.8	45	-7.8
National security guaranty	positive	51.3	52.3	1
Oligarchy (interlacing of business and government) threat	negative	38.9	51.5	12.6
Intentional accident risk (e.g., terrorism)	negative	38.3	35.5	-2.8
Lithuanian input against global warming	positive	32.6	36.1	3.5
Economic burden for Lithuanian people	negative	28.9	43.8	14.9

Source: (Boločkaitė&Rinkevičius, 2009)

Comparing the attitudes towards two cases of nuclear power, it might be concluded, that despite of technical improvements that are attributed to new NPP, most evident drawbacks of new project, according to public attitudes, are economic burden for Lithuanian people and oligarchy threats. This table is based on a survey which was conducted in 2008, when another project of nuclear power plant was under consideration. The basis of that project was public and

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private partnership, but general society found this model causing bigger oligarchy threats. 2012 referendum was associated to regional NPP project, thus it could be expected that this threat would have been associated with smaller risk of oligarchy than the previous one. However, economic aspects of nuclear power remained at high importance.

Before the referendum, the communication of economics of the project was not based on careful and realistic analysis. This as well as other project management mistakes resulted in sharp fall of public trust in competence of persons that were involved in the project. As it is noted in the scientific literature, trust, risk, and benefit perception are important elements of public acceptance of nuclear power stations. Moreover, benefit perception appears to be a stronger predictor of acceptance than risk perception (Visschers, Keller, & Siegrist, 2011). In Visaginas NPP case, while risk acceptance remained at high and relatively stable level, benefit perception was destroyed not only by objective reasons (the increase of investment cost in nuclear power plants), but also due to actions that were taken by stakeholders of the project. The results of more recent survey show that the voting in the last referendum, which reveals decrease in public acceptance of nuclear power in Lithuania, was not coincidental. In the beginning of 2013 only 25.7% of respondents were in favour of building of a new nuclear power plant, while 61.1% were against (Fuks, 2013). Another survey shows that 54 % of respondents consider nuclear power negatively (BNS, 2014). Due to mistakes that were made in Visaginas NPP project, the recovery of public acceptance of nuclear power in Lithuania will unfortunately require a big amount of effort. Assuming that public acceptance is among necessary prerequisites of a nuclear power program, energy planning should take into account this as an important socio-economic constraint.

#### **IV. Conclusion**

The creation of energy development scenarios requires not only technical and basic economic factors, but also socio-economic constraints to be taken into account. This can be done either by incorporating them directly into the model used for the analysis of the operation and development of the energy sector or by using additional indicators which reflect total systematic influence of several socio-economic constraints. The incorporation of a wider set of social and economic constraints into the modelling of energy development and energy planning process as such would make valuable contribution to the quality of decision making. From research point of

view, this would allow for creation of more plausible energy scenarios and, consequently, more accurate evaluation of their impacts on the society.

Public acceptance is crucial for the development of certain energy technologies such as nuclear power. Public acceptance level can be considered as approximation of some other socio-economic constraints that are much more hardly measurable. However, as public acceptance may change during the lifecycle of a technology, it should not be used as a single argument in long-term energy planning.

The analysis of the results of public opinion surveys regarding nuclear power in Baltic countries has shown that the greatest negative shift in public opinion about nuclear power took place in Lithuania. As the country is considered as a potential host of a new nuclear power plant, the recovery of public acceptance of nuclear power in Lithuanian society would require considerable amount of time and effort. This has to be taken into account when the properties of the nuclear power program are considered.

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## Relationship between Job Satisfaction and Employee Turnover in IT Organizations

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### **Abstract**

*Employee turnover is a continuous point of concern irrespective of industry. It is essential to ensure it is under control in order to sustain among the competitors. In spite of severe concern shown by the organizations there seems to be frequent movement of employees from one organization to another which is unavoidable and happens for one reason or the other. This study emphasizes on the relationship between job satisfaction and employee turnover in IT Sector, in one of the most reputed metropolitan city in India. This study is significant because IT sector is originally preferred zone of working for most of the employees which in turn claims that it is also facing employee retention issues. Hence, an attempt was made by the researchers so as to throw light on the discussed issue and its significant findings are discussed in the paper.*

**Keywords :** *Job satisfaction, turnover intention, absenteeism, Chennai, IT*

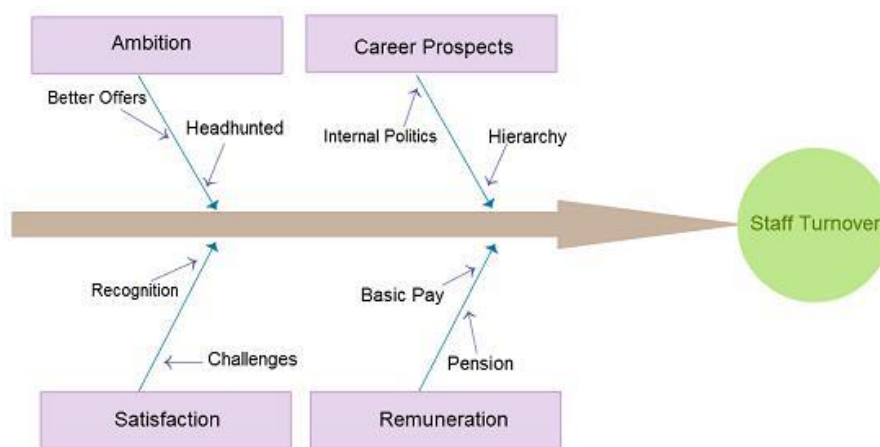
### **I. Introduction**

The study deals with how the Job satisfaction influences the behavioural intention of the employees working for IT sector. The study was conducted among various leading IT companies in Chennai, India namely Wipro, HCL and CTS. Information Technology is the field where most people work and most of them desire to work, despite this so many people who work for IT industries with an intention to leave. Employees get such intention as they lack job satisfaction. The study deals with three major factors such as job satisfaction, absenteeism and turnover intention. Herzberg's two-factor theory explains that two types of factors namely motivating factors and hygiene factors influence the need of a person in an organization. The motivational factors are advancement, recognition, achievement etc that is intrinsic whereas hygiene factors include salary, organizational policies, working condition etc that is extrinsic. Both the factors majorly contribute to the job satisfaction of job dissatisfaction of an employee. If there is job satisfaction there is commitment from the employees else there is organizational politics, turnover intention, absenteeism, withdrawal behavior etc. The theoretical establishment that job satisfaction or dissatisfaction is the main reason for turnover intention, has given way to a numerous studies in the literature on relationship between job satisfaction and turnover intention. It has also been emphasized that both are negatively related as employees do not quit jobs if job satisfaction prevails and only otherwise. Turnover intention is an area of study since last two decades with vigor across sectors and countries. Several studies were conducted in various sectors, and reviewed since 1990s and it was found that the frequently studied variables in major studies were Job Satisfaction, organizational politics,

Job Anxiety, Job Involvement, Organization Commitment. Turnover intention is a frequently studied variable with respect to job satisfaction.

Job satisfaction is the amount of pleasure or contentment associated with a job. If you like your job intensely, you will experience high job satisfaction. If you dislike your job intensely, you will experience job dissatisfaction.

Employee turnover refers to the proportion of employees who leave an organization over a set period (often on a year-on-year basis), expressed as a percentage of total workforce numbers.



Source : Steers, Porter & Bigley, 1996

Absenteeism means being absent from work. Employees may take a leave or not report to work for a variety of reasons. George and Jones (2002, p. 93) maintain that “...many researchers have studied the relationship between absenteeism and job satisfaction in an attempt to discover ways to reduce absenteeism.” Early job satisfaction research has emphasized the underlying assumption that job dissatisfaction represents the primary cause of absenteeism (Steers, Porter & Bigley, 1996).

## II. Review of Literature

Various studies have attempted to study the influence of job satisfaction over the behavioural intentions of the employees. Employee satisfaction and workplace behavior are linked through a variety of channels. If you like your job and feel you are adequately compensated and appreciated, you are more likely to perform better and have a higher degree of company loyalty. On the other hand, if you are unhappy with your job, feel you are overlooked, under-appreciated and poorly paid, your attitude and your behavior are likely to be sub-par. (Lisa McQuerrey, Demand Media)

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The major studies that tested the relationship between turnover intention and job satisfaction are Anderson, 1994, Biberman, 1985, Cropanzano et al., 1997, both studies, Ferris et al., 1996(a), Ferris, et al., 1996(b), Ferris & Kacmar, 1992, both studies, Bozeman et al 1996, Harrell-Cook et al., 1999, Kacmar et al., 1999, Nye & Witt, 1993, Parker et al., 1995, Randall et al., 1999, Valle & Perrewe, 2000, Valle & Witt, 2001, Witt et al., 2000, Muhammad et al 2009, Kodisinghe 2010; found that there was negative relationship between the two variables. The following studies by Vigoda et al., 2005, Shamaila Gull et al 2012, Takuma Kimura 2012, Akanbi 2013, Sharmila et al 2012; found that there was positive relationship between the two variables. This trend shows that the recent studies have found that job satisfaction of employees influences employee turnover intention. In continuation to the observed trend in the literature of job satisfaction the researcher proposes to find out the relationship between factors of job satisfaction and Turnover intention in the IT sector.

### **III. Methodology**

#### **3.1. Participants**

Non-probability convenience sampling method was used for selecting the samples for the study from Chennai city, as it was convenient for the researcher to collect data from the samples for the proposed study. Chennai is the fourth metropolitan city with a cosmopolitan crowd consisting of people from various parts of the country. 162 responses were collected various leading IT companies in Chennai, namely WIPRO, HCL and CTS.

#### **3.2. Procedures**

##### **Job Satisfaction**

Job satisfaction scale developed by Dubey.B.L. Uppal.K.K and Verma.S.K(1989) and Nath.K.(1988), organizational climate, role stress and locus of control, job involvement and satisfaction among banking personnel was modified by shamshad of JBAS College which had a pretested reliability of 0.64. The same scale was applied here & its cronbach's alpha co-efficient reliability score was tested and found as 0.788. Sample items include: "on the whole, I feel I have good prospects or advancement in my job", "working condition in this organization is satisfactory", "and "my job has helped me to learn more skills".

##### **Turnover Intention**

A six-item scale was used, and the IT employees were asked to report how much they agreed to the items). This scale was previously tested by Vigoda et al., (2005) and found valid & Reliable. It was measured on a Likert's 5 point scale ranging from strong agree, Agree, Neutral, Disagree and Strongly

Disagree. Its Cronbach's Alpha Co-efficient Reliability Score was tested and found as 0.812. Sample items were: "I often think about quitting", "I will probably not stay with this organization for much longer", "Lately, and I have taken an interest in job offers in the newspaper".

### **Absenteeism**

The habitual pattern of leave taken by the IT employees were studied using the options Never, Rarely, Sometimes, Often and Always. Its Cronbach's Alpha Co-efficient Reliability Score was tested and found as 1.000.

## **IV. Analysis and Discussion**

Pearson's Chi-square test was exploited to find the association between Job satisfaction and Turnover intention.

### **4.1. Relationship between Gender and Job Satisfaction in IT Sector**

**Hypothesis: There is association between gender of the respondent and Job Satisfaction in IT sector.**

For testing the hypothesis, Chi-square test was applied to find the association between gender of the respondent and the factors of job satisfaction. Gender of the respondent is classified into male and female. Job satisfaction includes five factors Organizational factors (Pay & Promotion, work environment, management) ,Supervisor Behaviour, Co-worker Behaviour, job recognition and job security comprising of 25 items over all. This is explained in the table given below in Table 1.

**Table 1 : Association between Gender and Job Satisfaction in IT Sector**

<b>S.No</b>	<b>Job Satisfaction</b>	<b>Chi Square observed value</b>	<b>P value</b>	<b>S/NS</b>
01.	Organizational factors	6.420*	0.007	S
02.	Coworker Behaviour	5.101*	0.020	S
03.	Job recognition	9.009*	0.017	S
04.	Supervisor Behaviour	7.100*	0.000	S
05.	Job Security	0.085**	0.000	S

Source: Primary Data

\*P<.05, \*\*P<.01

Based on the result obtained in table1; the hypothesis is accepted in all the cases (Significant). Hence, the researcher concludes that gender of the respondent is influencing the Job satisfaction in IT organizations. Hence, the hypothesis is accepted.

Chi square test was applied to find the association existing between gender and Job Satisfaction among IT sector employees in Chennai city. The researcher selected 162 employees from Top three reputed IT Organizations in Chennai city. The result shows that, male and female have a significant difference in their perception of job satisfaction in their organizations and proves that Gender influences employees' perception of job satisfaction in IT sector. Therefore, H1 is accepted at 5% level of significance with respect to all factors except job security at 1% level of significance. This is similar to the result obtained in Vigoda et al (2005) and Sowmya et al (2011).

#### 4.2. Table 2. Relationship between Job Satisfaction and Turnover intention

**Hypothesis : There is no correlation between employees' Job Satisfaction and Turnover intention in IT Organizations in Chennai.**

Karl Pearson's co-efficient of correlation was exploited to explore the parametric relationship among the various factors of job satisfaction and Turnover intention. In this context Job Satisfaction was considered as dependant variable and Turnover intention as independent variable. It was appropriate to use Karl-Pearson's coefficient of correlation to find the relationship between the both variables and the following results were obtained:

<b>Job Satisfaction</b>		Turnover intention
	Pearson Correlation	.614( **)
	Sig. (2-tailed)	.000
	N	162

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

A positive correlation was found between Job Satisfaction (0.614) and Turnover intention. It can be concluded that employees' satisfaction in IT organizations influences the employee turnover intention. This means that if an employee is not satisfied he or she continues to work with an intention to leave the organization at any point of time.

Therefore, the hypothesis is rejected as there is no correlation between job satisfaction and turnover intention in IT Organizations.

#### 4.3. Table 3. Relationship between Turnover intention and Absenteeism

**Hypothesis - There is no correlation between Employee turnover intention and absenteeism in IT organizations in Chennai.**

<b>Turnover Intention</b>		<b>Absenteeism</b>
	Pearson Correlation	.411 (**)
	Sig. (2-tailed)	.000
	N	162

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

A positive correlation was found between turnover intention (0.411) and Absenteeism. It can be concluded that absenteeism is dependent on the turnover intention.

Not much of previous studies have tested absenteeism as the variable with relevance to turnover intention. A study by Gilmore et al., 1996 has found a negative relationship between turnover intention and absenteeism. Vigoda et al., 2005 have found in their study a negative relationship between turnover intention and absenteeism. The researcher has tested the same in this study in Indian scenario in IT sector and has found a positive relationship between the two variables. It is presumed in the IT sector turnover intent of an employee leads to self-reported absenteeism of an employee from office. The employees is physically present and mentally absent or totally absent from workplace without any intimation. Uninformed leave becomes the original practice of an employee. If the turnover intent is taken care in organizations, absenteeism will be taken care by itself because it is believed from this study that turnover intention chronologically leads to absenteeism of employees.

Therefore, the hypothesis is rejected as there is no correlation between turnover intention and absenteeism.

#### V. Conclusion

From the detailed analysis it is found that there is influence of gender on job satisfaction of employees in IT organizations in Chennai, one of the predominant metropolitan city in India. The city is a metropolitan city with a cosmopolitan representation of people from various parts of the country. The opinion from the chosen responses can hence be generalised to employees in working various IT

organizations across the country. The study has in addition to the above, tested the relationship between job satisfaction and turnover intention and was found that there is relationship between both. Hence employees seem to be working with intent to leave the organization if they are dissatisfied and this is considered to be more harmful than the employee actually leaving the organization. Such state should not continue to exist in any kind of organization as it may affect the mindset of the other employees working in the organization and will also affect the morale of the organization. On studying the consequence of turnover intention as per literature it leads to absenteeism of employees. So, the relationship was tested between turnover intent and absenteeism and was found a positive relationship between both.

From the above study, it can be concluded that the organization should consider the important factors of job satisfaction and ensure that the employees are satisfied with such factors in the organization. As the findings show that job satisfaction influences turnover intent and absenteeism, the IT organizations should care to identify the reasons for turnover intent and therefore rectify so that an informed absenteeism does not occur subsequently.

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## A Study on the Plights of Migrant Workers in Wood Based Industry, Malaysia

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### **Abstract**

*Employees within that wood- based industry are particularly susceptible to developing stress-related illnesses because of the nature of their work (Fraser,1983). Employee Assistance Programme has to be part of the Health Care Programme. The establishment of Employee Assistance Programme in the wood-based industry has come at the right time so that the Company can set a practical example of valuing both the mental and physical health of its employees. Plywood and veneer factory workers who are stressed place their own lives at risk. According to Litchfield (1995), maintaining the health of staff and managing stress positively is likely to improve productivity, reduce errors, increase creativity, improve decision-making and lead to enhanced job satisfaction. This will be realised through the establishment and implementation of Employee Assistance Programme within the wood-based industry. The second reason that prompted the study conforms to what Brown in Fouché and De Vos (1998) has cited as day-to-day activities and interactions in the work situation. Their problems range from absenteeism and insubordination to dismissal and worse; run-away foreign worker problems. Occupational diseases have also been added to this list. As no research has been done in the wood-based industry on the needs assessment for development of an Employee Assistance Programme, the researcher is convinced that the results would make knowledge available that would promote a useful and relevant Employee Assistance Programme for the area..The significant findings from the study are discussed in the paper.*

**Keywords :**     **Wood industry, Malaysia, Employee assistance program**

### **1.1 Introduction:**

The presence of foreign workers in Malaysia is not a new phenomenon. During the colonial period, foreign workers were recruited from China, Indonesia, and India to work in the mines and rubber estates. Malaysia imported foreign workers in the 19<sup>th</sup> century to develop its plantations and mines. Since both plantations and mines offered year-round jobs, permanent immigrants were encouraged to move to Malaysia. In the process many of them acquired citizenship upon the independence of Malaya in 1957 (AzizahKassim, 1998). Since, then strict controls were imposed on migration of labour whereby foreign workers who came into Malaysia now are no longer allowed to reside in the country permanently. Thus, it is more apt to refer to them as foreign workers.

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The perceptible economic growth of the country since the seventies has created a regular and increasing demand for foreign workers in all sectors of the economy. Therefore, the employment of foreign workers in Malaysia has now become a regular phenomenon. Now, there are more than 2 million foreign workers in Malaysia including legal and illegal workers from Indonesia, Thailand, Bangladesh, The Philippines, India and other countries (Ghosh, 1998). In the words of the World Bank, Malaysia is now a small island in the sea of potential foreign workers. Job opportunities have in fact become the main attraction to the foreign workers. The foreigners come to Malaysia to offer their labour and skills, mostly in the industrial sectors with low-income and where the productions are mainly depended upon cheap and unskilled labour. In fact, most of the industrial sectors in Malaysia are having problem of labour shortages from local citizens of this country. Thus, the immigrants are likely to be the important source of manpower and most needed in ensuring continuous productions of our industries. They are needed not only in factories, estates and building constructions but also in restaurants, stalls as well as domestic servants in private dwelling houses.

Experience on the international front has proven that migrant workers have been important contributors to the development of nations (Toh, 1997). Look at our gleaming new buildings and highways; you will know that without the sweat and labour of the foreign workers, none of that would have been completed in that time frame. And we know that foreign workers are going to be needed here for a very long time. They perform tasks that our local manpower reject, or step in when the local numbers are insufficient. One would have thought that some appreciation or gratitude would be appropriate.

The time has come for organizations to address the rising incidence of personal and work-related illnesses or problems, which may be impacting on productivity and the social functioning of employees. Failure to address this will be reflected in increased defection, escape or run away, absenteeism, low productivity, demotivated employees, high telephone bills and low morale. As more employees find it difficult to cope with the demands of a highly pressured modern lifestyle, there is an increasing need for organizations to provide support for employees in the workplace. This support can be provided through an Employee Assistance Programme-towards foreign workers especially legally employed.

The services provided by Employee Assistance Programme vary substantially from place to place. No Employee Assistance Programme has the resources to meet every need, and so decisions have to be made as to how their resources can best be allocated (Smewing and Cox, 1998). The type, size, nature and characteristics of the institution to be served and the people within it, available resources, etc will influence such decisions. Needs assessment is important to help the organization develop the most

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appropriate methods of providing Employee Assistance Programme services. One of the principles of social work assessment is “beginning where the client is”. Much of this involves assessing the expectations and needs of the client system concerning the Employee Assistance Programme (Googins and Godfrey, 1987). Needs assessments are thus shaped by and take their characteristics from their specific contexts (Witkin and Altschuld, 1995). They have to benefit individuals with the needs. Needs assessment also ensures the development of an integrated, useful, legitimate and viable Employee Assistance Programme.

The lack of local labour has resulted in the increased employment of foreign workers in the woodbased industry. For the period 2000 - 2005, the number of foreign workers employed had grown by nearly 60 per cent to 96,444 in 2005 from 60,314 in 2000. The number had increased to 174,242 (58 per cent) in 2008 from 35 per cent in 2000. In 2008, the majority of the foreign workers were employed in the panel products sub-sector (49 per cent) and followed by furniture (36 per cent). However, in terms of growth, the rate of employment of foreign workers in the furniture sub-sector was the highest, increasing nearly three-fold to more than 62,000 in 2008 from nearly 16,000 workers in the year 2000. (National Timber Industry Policy 2009 – 2020).

Since the wood-based industry has unique characteristics associated with the wood products production process and the environment in which this is undertaken, it is important that a formal assessment of the problems and needs of the employees precede implementation of the Employee Assistance Programme. Needs assessment will also allow the Employee Assistance Programme practitioner to more accurately identify and respond to the requirements of the organization and its employees especially foreign worker. It is also important that organizations, which are in the process of setting up Employee Assistance Programme to address the flight of foreign workers, determine the needs that Employee Assistance Programme is expected to address. This would ensure that the Employee Assistance Programme would be relevant to a particular organization. In order to define or redefine the specific issues the Employee Assistance Programme must address a broad-based knowledge of how multiple levels of staff view the system and its foreign worker needs, because there can be major differences between managers’ perceptions and those of the rank and file employees (Cunningham, 1994). The participation of employees in assessment of needs gives them a realistic sense of ownership in the programme and in the delivery of Employee Assistance Programme services. An assessment of needs can also identify different issues that cannot be dealt with by Employee Assistance Programme alone. Other issues may require a broad-based effort on the part of the human resource department and management – e.g. communication problem between management and employees-foreign workers.

The research paper will focus on the needs of employees for the introduction of Employee Assistance Programme in the wood-based industry.

## **II. Conceptual Framework**

The study is designed after 'Decent Work' framework of ILO. The overarching goal of ILO is to improve situation of human being in the world of work. In recent times, decent work has emerged as the core concept of ILO in achieving this goal (ILO, 1999, 2001). To ILO, decent work means productive work in which rights are protected and generate an adequate income, with adequate social protection. In other words, it refers to a situation that promotes opportunities for men and women to obtain decent and productive work in the condition of freedom, equality, security and human dignity. The concept of decent work stands on four pillars. These are access to employment, promotion of rights at work, social protection, and social dialogue. Employment is generally seen as the means of sustaining life and of meeting basic human needs. But it is also an activity, through which individuals affirm their own identity, receives satisfaction and makes fullest development of their potentials and skills, thereby making great contribution to common well-being. Therefore, employment is not to be seen only as access to any job, rather access to "full job of acceptable quality, productive in nature and freely chosen". All those who work have rights at work. Every worker enjoys certain rights irrespective of his or her type of employment, whether in organized or not, in formal or informal economy, at home, in community or in the voluntary sector. Social protection refers to protection from vulnerabilities and contingencies that take people out of work. This includes old age, sickness, unemployment and loss of livelihood. Social dialogue is a process through which employer and employee resolve their differences and ensure social equity. It is means by which rights are defended, employment promoted and work secured.

## **III. Methodology**

### **3.1. Aim of the Research**

The study has the following objectives:

- To understand the nature of work that migrant worker are involved in selective industries that is focusing in wood base industry and an Employee Assistance Programme
- To find out terms and conditions of work including wage, overtime, bonus, working hours and holidays. Also to identify the nature of logistical arrangements like food and accommodation available to the workers.

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- To make an analysis of extent of work line, temperature in workplace, floor wise distribution of workers, problems and/or privileges regarding sanitation and drinking water, and state of fire exit in the factories.
  - To learn about the methods used by the management in fulfilling production targets. Whether coercion is involved in such process, what is the state of company code of conduct and what are the factory monitoring mechanisms
  - To find out the level of social protection provided to the workers regarding health.
  - To discover the scope and/or level of trade union involvement and mechanism of collective bargaining between workers and employers.
  - To suggest policy measures that will ensure decent work for migrant workers in labour.

### **3.2. Significance of the Research**

This paper will precisely illustrate the difficulties that are being faced by the migrant labour according to the World System theory and specifically on the migrant labour in Malaysia. Thus, the problem of what faced by the immigrant labour is not of a small scale, but are in a big and complex proportion. They all are facing a large problem that we should consider. The migrant labour are largely been exploited in many ways by capitalists. Therefore, this paper is trying to look into this matter more sharply and take into consideration on the exploitation among migrant labour in Malaysia that are shaped by the push and the pull factors causing the uneven development between the semi periphery that is Malaysia. So, this paper tends to deepen the World System theory by putting a point that there is an uneven development going on between Malaysia and Indonesia that really shape the exploitation among the migrant labours from Indonesia.

This paper also presents trends and facts within Malaysia environments for migrant workers. Its long term aim is to raise awareness of workplace safety for migrant labour forces and instill the significance of sound labour practices at work for all stakeholders including governments, employers, workers and NGOs.

### **3.3. Limitation of the Research**

As far as secondary data on legal migrants are concerned, the data was compiled with the cooperation with the various relevant government agencies. However, they were only be able to estimate the number of irregular migrants. As such, the current survey is not representative because it was not randomly selected as we do not know the exact total population of the irregular migrants. Moreover, it

will be difficult to get the cooperation of those not under detention as they are afraid we may betray their presence to the authorities. So the interviews were done only with those who were willing to cooperate.

### 3.4. Objectives of Employee Assistance Programme

Employee Assistance Programmes developed with different purposes in mind will have different goals and objectives. The programmes will thus vary widely in their specific objectives, depending on how the programme originated. Early programmes developed as a means of dealing with alcohol related problems. These programmes focused specifically on alcoholism and the programme was handled by experienced or interested laypersons within the organization (Trice and Schonbrunn, in Cooper and Williams, 1994). Other programmes focused on counseling employees with a wider range of problems. These are usually done by professionals such as psychologists or social workers. In many cases the initial objectives of a programme are determined by the particular individuals within the company who establish it, often a person or group, and by the reasons they have for wishing to do so (Cooper and Williams, 1994). The objectives of the programme are often determined by its design. They influence which activities are included, what kind of staffing arrangement is required and the distributor of activities within the commissioning organization and or external provider (Cooper and Williams, 1994). The major objectives of EAP objectives are:

- (a) To serve the organization, its employees and their families, by providing a comprehensive system from which employees can obtain assistance in addressing personal problems which may affect their work performance.
- (b) To serve as a resource for management and labour when they intervene with employees whose personal problems affect job performance.

## IV. Analysis and Discussion

### 4.0. Descriptive Analysis: - Table 1

		Frequency	Percentage
Gender	Male	84	78
	Female	24	22
		108	100
Age Group	18-40	48	45
	41-50	38	35
	51 and above	22	20
		108	100
Marital Status	Single	54	50
	Married	34	31
	Divorce & Separated	20	19
		108	100

Job Classification	Professional	38	35
	Production/Technical	70	65
		108	100
Education	Lower Grade	44	41
	Equ. Certificate	29	27
	Higher Institution	25	23
	University Degree	10	9
		108	100
House-hold Size	1-5	75	69
	6 or more	33	31
		108	100
Length of Employment	Less than 10 years	55	51
	11 to 20 years	29	27
	21 years and above	24	22
		108	100

Source : Primary Data

#### 4.1. Factor Analysis:

Factor analysis was conducted on questions related to: (a) work-related problems; (b) job dissatisfaction; (c) need for employee assistance programme – i.e. question B11, qB12, qB13 and qE14. Factor analysis was used as it helps the researcher to reduce the number of questions to a few interpretable factors or dimensions and it enables the researcher to describe the results of survey in a concise manner by concentrating on the factors rather than the individual questions (Eiselen and Uys , 2002).

The factor analysis yielded 3 factors, i.e.:

- a) Extent of experiencing work-related problem
- b) Extent of experiencing job dissatisfaction
- c) Extent of need for Employee Assistance Programme

**Table 1.2**

#### Descriptive Statistics

Descriptive Statistics	Work-related problem	Job Dissatisfaction	Need for Employee Assistance Program
Mean	3.8049	3.1818	4.0159
Median	4.0000	3.0238	3.9968

Standard Deviation	.41584	.42082	.21757
Minimum	2.92	2.29	3.75
Maximum	4.00	3.81	4.63
Interquartile Range (IQR)	.00	.86	.38
Skewness	-1.674	.281	1.109
Percentile			
25 <sup>th</sup>	4.0000	2.8571	3.8750
50 <sup>th</sup>	4.0000	3.0238	3.8750
75 <sup>th</sup>	4.0000	4.0000	4.2500
90 <sup>th</sup>	4.0000	3.7619	4.2500
95 <sup>th</sup>	4.0000	3.7833	4.5000
Level of			
Low ( $\leq 2.33$ )	0 <sup>a</sup> (0.0) <sup>b</sup>	0 <sup>a</sup> (0.0) <sup>b</sup>	0 <sup>a</sup> (0.0) <sup>b</sup>
Moderate (2.34-3.67)	20 (18.2)	20 (18.2)	20 (18.2)
High (3.68-5.0)	90 (81.8)	90 (81.8)	90 (81.8)
Total	110 (100.0)	110 (100.0)	110 (100.0)

Note: <sup>a</sup> = Frequency/Count, <sup>b</sup> = Percent, n = 110

#### 4.1.1 Level of work-related problem

The first objective of this study was to determine level of work related problems. Table 5 present overall summary of the descriptive statistical analysis for all the three factors, the dependent variable of the study. The overall mean of respondent's problem level were computed that needed by the first objective. The standard deviation is measured of how representative the mean was of the observed data. Small standard deviations relative to the value of the mean itself indicate that data points are closer to the mean. Table 6 shows the acceptable level of skewness.



Based on the five-point scale used, the minimum work related problem rating was 2.92 and a maximum of 4.00 and this gives a range of 1.08. The median work related problem rating value was 4.00 with a standard deviation of .41. That mean work related problem rating was 3.80 implying that overall the level of work related problem is quite high. The 25% percentile of work related problem is 4.00 and the 75<sup>th</sup> percentile is 4.00 and thus the interquartile range (IQR) is .00. The values obtained for the 25<sup>th</sup> and 75<sup>th</sup> percentile suggest that 81.1% of the respondents have a work related problem rating between 3.68 and 5.0. The 90<sup>th</sup> percentile of the work related is 4.00, which mean that 100% of the respondents have a work related problem reading of 3.68 or more. In other words, 100% of respondents obtained a work related problem reading of above 3.68. In accordance with the rating of below 2.33 is low, 2.34-3.67 is moderate, 3.68 – 5.0 is high, the wood-based industry employees appeared to have been experiencing work related problems with their level of work related problem. The employees who felt that their level of work related problem is high (4.00%)

#### **4.1.2 Level of job dissatisfaction**

The second objective of the study was to determine the level of job dissatisfaction. The result are depicted in table 5.

Based on the five-point scale used, the minimum job dissatisfaction rating was 2.92 and a maximum of 3.81 and this gives a range of 1.52. The median job dissatisfaction rating value was 3.02 with a standard deviation of .42. That mean job dissatisfaction rating was 3.18 implying that overall the level of job dissatisfaction is moderate.

The 25% percentile of job dissatisfaction is 2.85 and the 75<sup>th</sup> percentile is 4.00 and thus the interquartile range (IQR) is .86. The values obtained for the 25<sup>th</sup> and 75<sup>th</sup> percentile suggest that 90% of the respondents have a job dissatisfaction rating between 3.68 and 5.0. The 90<sup>th</sup> percentile of the job dissatisfaction is 3.76, which mean that 90% of the respondents have a job dissatisfaction reading of 3.68 or more. In other words, 90% of respondents obtained a job dissatisfaction reading of above 3.68.

In accordance with the rating of below 2.33 is low, 2.34- 3.67 is moderate, 3.68 – 5.0 is high, the wood-based industry employees appeared to have been experiencing high level of job dissatisfaction. The employees who felt that their level of job dissatisfaction is high (4.00%)

#### **4.1.3 Level of the need for Employee Assistance Programme.**

Based on the five-point scale used, the minimum value need for employee assistance programme rating was 3.75 and a maximum of 4.63 and this gives a range of 0.88. The median need for employee

assistance programme rating value was 3.87 with a standard deviation of .21. That mean employee assistance programme rating was 4.01 implying that overall the level of job dissatisfaction is high.

The 25<sup>th</sup> percentile of employee assistance programme is 3.87 and the 75<sup>th</sup> percentile is 4.25 and thus the interquartile range (IQR) is .38. The values obtained for the 25<sup>th</sup> and 75<sup>th</sup> percentile suggest that 81.8% of the respondents have a need employee assistance programme rating between 3.68 and 5.0. The 90<sup>th</sup> percentile of the employee assistance programme is 4.25, which mean that 81.8% of the respondents have a need employee assistance programme reading of 3.68 or more. In other words, 81.8% of respondents obtained a employee assistance programme reading reading of above 3.68.

In accordance with the rating of below 2.33 is low, 2.34- 3.67 is moderate, 3.68 – 5.0 is moderate, the wood-based industry employees appeared to have the need for employee assistance programme been experiencing high level of employee assistance programme. The employees who felt that their level of the need employee assistance programme is high (4.00%)

## **V. Conclusion & Suggestion**

One of the objectives of this research study is to make recommendations that would contribute to the introduction of an appropriate and relevant Employee Assistance Programme for the Wood-Based Industries. It was stated in Chapter One that organizations which are in the process of setting up Employee Assistance Programme should determine the needs that Employee Assistance Programme is expected to address through needs assessment. In view of the research findings and results of the data gathered, the following recommendations are made: It is recommended that:

Since women made up 22.9% of the workforce, Employee Assistance Programme should make special provision for the needs of women. This can be done through workshops which address women's issues like child rearing, women empowerment, single parenting etc. - Since the majority of the respondents (54.1%) are 41 years and older, Employee Assistance Programme should take into account the unique developmental life stage of this age group. Intervention programmes should include seminars/workshops addressing issues of retirement, mid life crisis etc.

Since 49.5% – about half of the respondents – are either married or living together, it is important that Employee Assistance Programme give special attention on issues around building healthy relationships. This can be done in the form of workshops/seminars and individual and group therapy.

Since 68.8% of the respondents are single, divorced, widowed or separated, Employee Assistance Programme should offer seminars/workshops dealing with issues of divorce, single parenting or being single. This can also be done through individual or group therapy.

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Since 34.6% of the respondent was higher qualification and 39.1% have lower, it is clear that the respondents were composed mostly of two different categories – i.e. educated and low educated. The Employee Assistance Programme should thus take this into account and seminars and workshops should cater for the two groups (the educated and the low educated). The presentations should also take into account these qualification differences.

Since 48.2% of the respondents have more than 10 years' experience. Any investment in employees in terms of Employee Assistance Programme would mean that the organization would have long-term benefits as the average employee has more than 10 years' experience. Employee Assistance Programme is thus recommended.

As indicated in the analysis of data the majority of respondents are experiencing work related problems. It is recommended that Employee Assistance Programme give special attention to these problems. The intervention strategies should include workshops/seminars aiming at prevention and education, individual as well as group therapy.

On average, respondents experienced job dissatisfaction to a large extent. It is recommended that the Employee Assistance Programme practitioner should give special attention to these problems as this will have a positive effect on job commitment, job satisfaction and productivity.

Employee Assistance Programme has to give attention to personal stress, as on average respondents experience this problem to a moderate extent. This can be reduced. Special attention needs to be given to production workers and employees with smaller household members.

Since respondents experience job dissatisfaction to a large extent, the Employee Assistance Programme practitioner should give attention to issues that make employees dissatisfied with their jobs. Special attention should be given to 18 to 40 year olds as they experience less job satisfaction

Since the majority of employees have a need for Employee Assistance Programme – on average employees experience a need for Employee Assistance Programme to a very large extent – it is recommended that Employee Assistance Programme be introduced for the Veneer and Plywood Factories

It is recommended that the findings of this research be generalized to other Wood-Based Industries

It is recommended that further discussion and research on Employee Assistance Programmes be done for the Wood-Based Industries.

An Employee Assistance Programme is an organizational asset, which plays a significant role in helping those in positions of authority to resolve complicated work performance problems. Cohen (1985) indicates that once an EAP policy has been outlined and the roles of those within the organization have been defined, a means of promoting managerial and supervisory expertise in operationalising the process is essential. The researcher believes that the importance of training

supervisors cannot be underestimated because supervisory training forms part of the Employee Assistance Programme core technology, hence it is not an option, but an absolute necessity and component of the programme.

The researcher recognizes that the role of supervisors in the workplace has become more complicated. Modern-day employees face more broad and complex problems than in the past. Consequently, supervisors must take a human interest in the people who work for them. In so doing, a supervisor should make the availability of Employee Assistance Programme services known to employees, which forms part of the marketing strategies of the programme. A supervisor's ability to make appropriate referrals have a direct impact on Employee Assistance Programme utilization by employees. Therefore, it is important that supervisors understand that their role is not to diagnose personal problems, but to focus on employee job performance.

Regular interaction between Employee Assistance Programme staff and employees is an important approach to improve the visibility of Employee Assistance Programme staff and create awareness of Employee Assistance Programme. The researcher recommends that presentation by Employee Assistance Programme staff be conducted during employee orientations, staff meetings and workshops. These sessions should be conducted regularly, and on a compulsory basis to ensure that all employees attend the sessions.

With these recommendations the research study is concluded. The study focused on needs assessment for an Employee Assistance Programme in the Wood-Based Industries. This was done through the development of a questionnaire. The needs of employees were described through analysis of data. An overwhelming majority of respondents indicated that there is need for an Employee Assistance Programme in the Wood-based Industries. The study succeeded in achieving its aim – i.e. to conduct a need based assessment for EAP in the Wood-based Industries in Malaysia.

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## **Recreational Activities in Cultural Centres: a Theoretical Approach**

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### **Abstract**

*Cultural centre is one of very few cultural organizations which are developed on a national basis, having few analogues in other countries, thus gaining particular significance in supporting ethnical culture. Recreation, first of all as a social process, second - definition of recreation as a process, third - recreation as purpose of social phenomenon, fourth - recreation as a process of socialization, fifth - recreation as one of the main function of State - function of the development of society, sixth - community recreation. Thus a scientific issue analysed in the article is the following: recreation as on the most important task of cultural centres activities.*

**Keywords:** *cultural centres, recreation, conception of recreation, activity, integration*

### **I. Introduction**

In Lithuania, cultural centres were first established in Soviet Lithuania when the country was reoccupied by the Soviet Union (1945 – 1990). They are seen among the most important institutions that implement the country's cultural policy goals. The establishment of cultural centres, their reconstruction, expiration, management, operation, classification and financing are determined by the Law on Cultural Centres of the Republic of Lithuania (LRS 2004). It states that a cultural centre is a legal person established by law and acknowledged on the basis of this law who uses his actions to promote ethnic culture, amateur art, creates artistic programmes, develops educational, entertainment activity, satisfies cultural needs of a community and organises circulation of professional art. The Law on Cultural Centres of the Republic of Lithuania also states that municipal cultural centres are those cultural centres who have acquired a legal form of a budgetary institution or a public institution whose establisher is the municipality council. The law constitutes that the legal form of municipal cultural centres can be a budgetary or public institution, the activities of which are respectively regulated by the law on budgetary authorities of the Republic of Lithuania or the law on public institutions of the Republic of Lithuania. The establisher of municipal cultural centres is the municipal council. The activities of cultural centres and other related relations are also regulated by the following laws of the Republic of Lithuania: Law on State Care Foundations of Ethnic Culture of the Republic of Lithuania (LRS 1999), Law on Theatres and Concert Institutions of the Republic of Lithuania (LRS 2006b), Law on the Status of Art Creator and Art Creator Organisations of the Republic of Lithuania (LRS 2010b), 30 June 2010 Resolution of the Parliament of the Republic on Lithuania No.XI-977 *On the Confirmation of Lithuanian Cultural Policy*

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*Alternation Guidelines* (LRS 2010), Law on Regional Development of the Republic of Lithuania (LRS 2002b), Law on Museums of the Republic of Lithuania (LRS 2003), Law on Libraries of the Republic of Lithuania (LRS 2004b) and other bylaw acts and regulations. **Thus the objective of this article** is to identify the recreational activities in cultural centres

## **II. Cultural centres activities**

In 2012, the Republic of Lithuania included 334 operating cultural centres where an art collective of 3151 amateurs developed their activities. Art collectives operating in cultural centres are categorised, and these categories have impact on the category a particular cultural centre is attributed to. The categories of art collectives in a cultural centre are determined by the Minister of Culture of the Republic of Lithuania on the basis of 17 March 2008 Order No. IV-145 *On Confirmation of Regulations of Attribution of Categories to Amateur Art Collectives according to Artistic Level, Activity and Results Obtained* (LRS 2008).

Jureniene & Urboniene extensively discuss the significance of cultural centres in their book where they maintain that the following main criteria describing the significance of cultural centres can be distinguished:

They organise creative communities. Modern culture and art centres encompass the function of intellectual entertainment generation and therefore are able to organise the most intellectual and active members of the society thus creating an appealing creative environment (Gulbinas 2006).

They create conditions for dynamic development of art and culture. Modern cultural centres as catalysts of creative practices have impact on the overall socio-cultural development.

They encourage communication and information exchange processes. Modern art and culture centres encourage creative cooperation by carrying out active socio-cultural activity, which generates constructive dialogues and innovative ideas.

They encourage positive socio-cultural processes. Such centres frequently operate within not only the cultural, but also the social area (i.e. they carry out certain projects that promote social integration, tolerance, etc.) thus creating fully-fledged social environment.

They create an appealing image of a town, region and country. Cultural centres revive landscape (by adapting abandoned buildings for the purposes of creative activities) and create a positive regional image. Moreover, creative activities promoted and developed by such centres attract the attention of not only local citizens or business representatives, but also foreign tourists and investors (Jurėnienė et al 2014:13).

The activities of cultural centres are regulated by the Law on Cultural Centres of the Republic of Lithuania, 15 July 2004. All the activities of culture can be grouped into 5 main areas.



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*Popularity of ethnographic culture.* Both in the rural and urban areas, Lithuanians still gather into communities that promote ethnic culture. Ethnographic culture that has been promoted throughout ages is still a distinguishing factor among countries that one had specific customs and traditions.

*Promotion and encouragement of modern culture.* Modern cultural events attract masses of people from both urban and rural areas. These events in smaller towns and villages are usually organised by their cultural centres. The main problem of mass events in small towns and villages is the issue of the quality of culture or artistic level. For cultural centres, it is especially important to attract educated and professional cultural workers, gather a collective of specialists who would integrate into the local community and help their members to educate themselves in various areas of culture. This is a very important activity carried out by a cultural centre, i.e. informal education which has not been distinguished or otherwise emphasised in any law.

*Protection of cultural heritage.* A cultural centre puts an input into protection of heritage, development and recovering in various shapes and forms, i.e. by organising various events, looking for financial sources or settling in an abandoned cultural heritage object and voluntarily renovating, arranging and taking care of it.

*Establishment of new work places and quality leisure employment.* Cultural institutions that want to receive the status of a cultural centre must have a respective number of qualified cultural workers and artists. This creates conditions for professional artists to work in entire Lithuania, and people get an opportunity to develop artistic skills, have cultured leisure time and realise themselves in the field of culture.

*Project drafting and implementation within the society.* This activity is intended to implement ideas that are not meant to be financed by the country, yet their benefit is evident. The EU structural funds finance the promotion of improvement, development and initiatives of life in rural areas. This support can be used in improving the basis of a cultural centre by purchasing new equipment which would later help to improve and develop its activities (Jureniene, 2012:115).

It is important to note that neither the laws, nor other documents discussing the activities of cultural centres note the recreational activities carried out by cultural centres. However, Jureniene emphasises that cultural centres carry out a recreational function (Jureniene, 2012:116). This allows assuming that the activities of cultural centres have not been fully studied. The changing perception of cultural centres and their activities in the world attract more attention to the recreational activity and its importance in an individual's life.

**Recreation** is a very old phenomenon that has been developing together with human evolution. Throughout ages, people have needed to relax and regain physical and spiritual strength. Current recreation forms are quite different from those that existed many years ago. This does not necessarily



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mean that they have since improved, yet it means that they have adapted and meet to the needs of the modern society. Definitions of recreation vary from scholar to scholar; however, it is important to note that several scholars provided definitions for recreation that are not extensively modified and are still used. As David Gray, D. Pelegrino points out: **Recreation** is every human being's individual emotional state that is shaped by positive well-being and sense of satisfaction. It is attributed feeling of such emotions or states as personal worth, mastery, achievements, good mood, success or pleasures. This promotes positive self-evaluation. Recreation is closely related to aesthetical experiences, achieved personal goals or positive feedback from other people. Even though the concept of recreation has been changing, the main constituents have remained the same, and most authors today define recreation as regeneration or improvement of physical and emotional state. Some authors note that recreational activity with a permanent location is called resting, and with a changing location – tourism. Resting and tourism are the main forms of organisational recreation. Tourism is first and foremost focused on cognition, whereas resting and recreation share a very clear goal: in the former case, the goal is to rest from the troubles of work, and in the latter case – to regenerate lost physical and spiritual strength. This activity is usually carried out in free time which essentially describes the type of time rather than the specificity of the activity. Thus, the concept of leisure time is the most capacious because it can encompass various forms of activity, i.e. resting, tourism, creative activity, self education, satisfaction of one's cultural interests, etc. (Saveikaite 2013:15).

There are two forms of recreation based on their level of activeness – *active* and *passive*. Recreation can also be grouped into the following categories: *local* – without the need to leave the place of residence, *outbound* – outside the place of residence. Based on its development place, recreational activity can be divided into *inside* and *outside*. Based on its duration – *short-term* and *long-term*; based on the season – *summer* and *winter*.

In Lithuania, the recreational system planning methodology includes well-established types of activity (Figure 1).

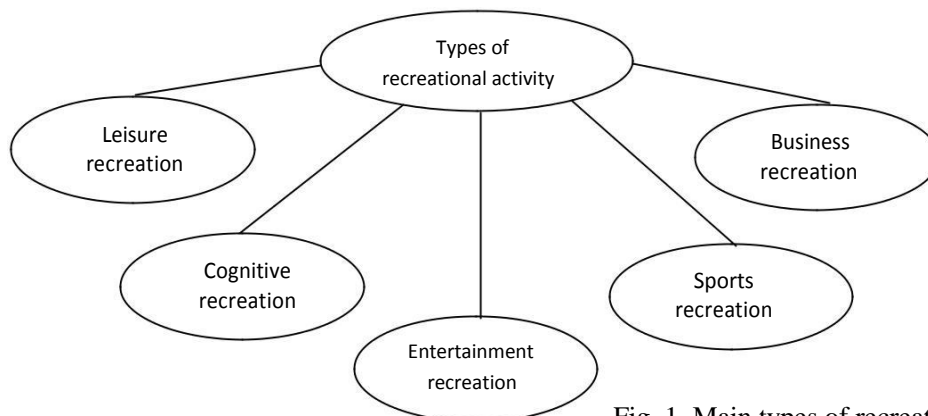


Fig. 1. Main types of recreational activity

Source: created by the authors.

*General resting* (Leisure recreation) –stationary resting in specialised premises, camping with or without spending the night, swimming, rowing, hiking, riding, skiing, skating;

*Cognitive recreation* – excursions, cognitive hikes, water, bicycle, ski, car tourism;

*Entertainment recreation* –weekend entertainment, mass events, hiking and riding in places of attraction;

*Remedial recreation* –preventive treatment, medical treatment, remedial hiking;

*Sports recreation* – sports games, sailing, rowing, swimming with water motor vehicles, water skiing, underwater swimming;

*Business recreation* – picking mushrooms, berries, nuts, fishing, hunting, gardening (Vitkiene 2001).

Scientific literature points out the necessity for recreation and decision-making in terms of choosing its type:

Physiological necessity because even the biggest workaholics reach a limit when the human body does not function the way one wants, and needs at least minimal rest because it is the only way to become active and get rid of constant ailments or even extend lifespan.

Recommendations of doctors – as a preventive means against certain illnesses.

Personal traits – every stage of life and character differences determine the need for different ways of resting and its duration.

Advertising and fashion – the pushiest advertised means of relaxation become a question of trend, and people choose exactly that rather than what they are used to.

Stuopyte and Jureviciene claim that every day and weekend recreation is determined by human biological factors. Everyday recreation is determined by the rhythm of the day, i.e. work, sleep and activities after work. Weekend recreation does not differ much from everyday recreation. A 40-50 hour week requires a certain amount of time for relaxation respectively. This is a biological reaction to

exhaustion, which has been evident throughout ages and in all cultures. Everyday and weekend recreation does not usually have a spatial expression, and the trip from the “place of exhaustion” to the “place of recreation” is usually very short (Stuopyte et al 2008). The authors also distinguish the following types of recreation:

*Long-term recreation* – a more complex phenomenon. Its necessity is determined by the exhaustion accumulated and being in one – residential – place for a long period of time. This is a universal phenomenon particular to all people, even though the forms of relaxation depend on evolution and socio-cultural level of development. Spatial-wise active recreation when one travels relatively far from the place of residence is the result of territorial undertaking. Social dependency of long-term recreation is more elaborate than that of everyday or weekend recreation. From historical point of view, this type of recreation has changed as much as to turn from spatially passive to active with the tendency to go further away from home. Very long trips are not acceptable to everyone, and this does not merely depend on the financial state – it is a spiritual need.

*Relaxation* – this is not a mere trip to a place of attraction, but also a search for diversity. Pleasant familiarisation and acquisition of diversity is the most general and meaningful characteristic of recreation. It is essential to maximise the diversity of one’s activity at least once a year. This also can be done staying at home. From a spatial point of view, this would be passive recreation; however, it involves all its functions and is not essentially different from spatially active form. Free time does not have to involve going further away; it is necessary to change the lifestyle.

Each type of recreation involves a level of intensity and significance. The potential of realising a specific type of recreation depends on a separate individual’s material state and level of societal development, level of culture and other factors (Stuopyte et al 2008).

### **Recreational spaces**

As it has been mentioned, recreation can be carried out in various spaces. First of all, it can be grouped into outside and inside recreation, or according to recreational activities or ownership rights. In 2004, the Minister of Environment of the Republic of Lithuania confirmed the order “On Using, Planning Recreational Territories, and Confirming Protection Regulations” which points out the system of recreational territories. This system consists of the following:

- recreational areas and districts;
- recreational localities;
- residential localities with the status of a resort;
- recreational functional priority zones and their parts;
- common plantations in towns and other residential localities, also, park territories and other common territories;

forests that belong to the IIB (recreational forest) group following the order of the Republic of Lithuania;

surface water bodies attributed to recreational resources in the common plan of the territory of the Republic of Lithuania and the municipality territory plan documents;

other (recreational) main purposive plots of land used for recreational infrastructure. The same order also discusses recreational infrastructure; it states that the infrastructure involves residential, medical (wellness), catering, relaxation, sports, information purpose premises, other buildings, groups of buildings and complexes with the land they occupy (also rest-houses, sanatoriums, wellness complexes, hostels for youth, hotels, camp sites, tourism bases, sightseeing spots, beaches, resting places, tourism routes, sightseeing pathways, etc.) that can accommodate visitors, cater, provide information, increase rest, tourism, entertainment, wellness and satisfy other recreational needs as well as provide separate tourism services (LRS 2004c).

Meanwhile, I. Urboniene in her work *Expression of Recreational Activity in the Urban Spatial Structure* provides a table that groups recreational spaces with regard to recreational activity. A fragment of the author's table is provided below (table 1).

**Table1. Recreational spaces according to recreational activities**

Recreational activity	Spatial type	Dominant ownership right	Psychological perception of spatial dependency	Urban recreational functions
Cultural recreation	Inside	Public	Public– partially public	Concert halls, theatres, museums, cultural centres, cinema theatres, galleries, art centres, historic heritage objects, memorials,greenhouses, city banks.
	Outside			Squares, estrades, amphitheatres.

Source:Urbonaite,I.2013.Expression of Recreational Activity in the Urban Spatial Structure,26pp

Cultural centres are noted by the author as a part of the residential place infrastructure whose one of the purposes is to carry out cultural recreation. Cultural centres being noted next to museums, cinema theatres and galleries shows that the recreational function they have is perceived, acknowledged and important in carrying out the recreational function in the city.

### **Culture and recreation**

Culture and recreation is a rarely analysed topic in Lithuania and rarely written about in scientific literature. However, foreign authors describe culture as an important source of recreation. Studies on this topic aim at figuring out the impact of culture on human regeneration of physical and mental strength;

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they also aim at creating cultural and recreational centres, establishing cultural and recreational departments and committees in communities. Activities of such departments play an important role in creating and providing quality programmes of creative relaxation, culture and active life. This is seen as an efficient improvement of community life quality. A focus group that was created in Canada, Ottawa to study the coherence between society and museums notices in its final report that culture is the main index that influences a human community's wellbeing (WGMSC 2003). Culture is so closely related to human personal identity that treating it as a social aspect or leaving it undistinguished would wrongly diminish its importance.

Sh. Torjman distinguishes four areas that are positively influenced by culture and recreation: health and wellbeing, development of skills, social capital and economic impact.

*Health and wellbeing.* Actual benefit of recreation related to human physical health is discussed and described in various documents. Benefit for children and the youth or the elderly is especially emphasised. It is noted that recreation in the form of games is important for a healthy development of a child. It encourages development of motor, social, creative and cognitive skills. Also, it has a positive impact on the psychological wellbeing of children and decreases the feelings of depression and anxiety. It is claimed that involvement in cultural recreational activities helps to decrease emotional and social problems. The youth who participate in recreational activities display a decreased feeling of boredom and manifestations of negative behaviour this feeling creates. Speaking of older people, it can be seen that those people who take part in recreational activities are a decade or over younger than their peers who do not take part in recreational activities from a psychological standpoint (Torjman 2004).

*Development of skills.* Recreation plays a crucially important role in learning and improving skills. Children who work in groups acquire such traits as leadership and improve such social skills as sharing and collaboration. Culture-based programmes in such fields of art as theatre, music and dance encourage formation of such equally important traits as creative thinking, decision-making and problem solving. These programmes also encourage improving communication, negotiation, conflict solving, tolerance, personal responsibility, and self-control and assertiveness skills (Torjman 2004). Long-term participation in certain art activities, especially theatre and music, is especially closely related with better results in math and literature. An art integration programme for education institutions was created in Chicago and adapted in 14 schools that are located in poverty stricken districts. The results showed that academic achievements in these schools increased significantly (Catterall et al 1999). Recreational and cultural programmes that create self-respect and social skills can encourage to participate in the life of a community. It was concluded that such involvement helps to educate leaders who later help their communities and generate social capital (CPRA 1997).

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*Social capital* stands for relationships, social relations and norms which encourage shared actions. It is generated when people group together to achieve a shared goal which is more important than personal benefit and encompasses the idea of mutual relations. Social capital is generated by participating in organisations or social collaboration structures (Putnam 2000). Healthy development of children is mostly determined by the environment in which they are raised. Communities with a high level of development are treated as suitable for raising children (Putnam 2000:307). Culture and recreation, with the help of art and recreation programmes and community events, create means that helps to generate social capital. For instance, community events help to maintain close relations between community members and encourage relations that strengthen the community. Speaking of communities, it has been determined that arts encourage social unity and emphasise the identity of a community in a multicultural environment. With the help of cultural festivals, art presentations and exhibitions, different foundations of history and culture can be shown and recognised as well as social differences (Azmiar 2002: 4). Arts and culture are also assessed as a means to preserve local, specific identity within the global culture that dominates in mass media. People use culture as a means to identify themselves and protect local values (WCCD 1997). Meanwhile, *Canadian Parks and Recreation Association* describes another social problem – youth delinquency. The data provided by the organisation shows that cultural and recreational programmes help to decrease delinquency among adolescents. It can also be seen that recreational and cultural programmes are becoming especially important and applicable when working with children who come from families that belong to risk groups (CPRA 1997).

*Economic influence.* Culture and recreation benefits communities economically. Economic benefit can be twofold – direct and indirect. Direct benefit is establishment of work places in the fields of culture and art. Indirect benefit comes from tourism, local investments and export of goods. Azmiar maintains that there is a sufficient number of studies that found out that arts and culture in communities can be used as a core strategy to attract visitors and improve urban life quality (Azmiar 2002). *National Governors Association* distinguishes 4 areas where culture plays an important role thus helping to create economic benefit. The report states that art programmes, with the help of state or local government, serve as a component for extensive effect economic development programmes:

By directing human capital and cultural resources, to create economic activity in unattractive regions employing tourism, crafts and cultural goods.

By recreating and reviving communities, emphasising reconstruction of the main part of the city and revitalisation of culture.

By creating active public spaces and integrating them into the natural environment. This improves urban life quality, extends business and financial base, and creates a positive image of a region and community.

By adding to the introduction of regional innovations thus improving regional life quality, making it more attractive for employable, educated workers and allowing production of new products that require a lot of knowledge (NGA Centre 2001L16).

State and municipal institutions create conditions for the citizens of the country to use cultural services and participate in the cultural life.

### **III. Conclusion**

Cultural centres are one of the most important institutions in implementing cultural policy goals in Lithuania. With the changing society, increasing amount of information and improving accessibility to it, the role of cultural centres is also changing. Cultural centres face new requirements related to the application of information and communication technologies, improvement of the standards of living for member of society, quality employment formation and satisfaction of the cultural needs and the need for lifelong learning. Consumers require more diverse and of better quality activities.

Successful recreation needs recreational potential, i.e. territories and spaces with a recreational purpose. Thus, arrangement of recreational spaces, their accessibility and proper use to carry out recreational activity are very important.

The evident impact of culture on the regeneration of human physical and mental strength is designated as an efficient improvement of a community's life quality. The country's citizens' cultural activity and participation in it expresses the society's activeness, its needs and perceptions on values; thus, organisation of such activities could become one of the priorities in forming the cultural life of a community.

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## Customers' Perceived Satisfaction on various Banking Strategies – An Indian Context

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### **Abstract**

*Banking is no longer a business restricted to borrowing and lending of funds. Recent years have seen Indian commercial banks – both in the public sector and private sector diversify into new areas to widen their business horizons. This paper has dealt with the customers' perceived satisfactions towards various strategies that are followed in their bank.*

**Keywords : Banking, Customer service, Customer Satisfaction**

### **I. Introduction**

In India, there are marked disparities in income, industrial growth and development among its regions. The policy makers, in order to address the issues of equitable growth and development of all the regions as well as the people, have combined both Socialistic and Capitalistic features in the country's economic policy framework since Independence. This is evident from the large investments of the public sector in infrastructure, manufacturing and the service sectors and also from the role assigned to the banking sector. Thus, in India, the banking sector has had to serve the goals of the economic policies enunciated in successive Five-Year Development Plans, particularly concerning equitable income distribution, balanced regional economic growth and reduction and elimination of private sector monopolies in trade and industry.

#### **1.1 The Indian Banking System**

Significantly, as the Indian banking sector had been assigned the role of providing support to other economic sectors such as agriculture, small-scale industries, exports, etc., they remained occupied with domestic priorities, especially massive branch expansion, attracting more people to the system and ensuring elimination of economic disparities. Thus, with the emphasis on social and development banking, margins on loans and advances had narrowed

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down and profitability of commercial banks declined. Apart from this, during this period, many Indian banks also remained internationally isolated (few Indian banks had presence abroad in international financial centres). The reason for which the banking system remained isolated from the international arena, however, can be attributed to strict branch licensing controls on foreign banks already operating in the country as well as entry restrictions facing new foreign banks. A criterion of reciprocity was required for any Indian bank to open an office abroad. It is worth mentioning that the pace of development for the Indian banking industry has been tremendous over the past decade. Recent time has witnessed the world economy develop serious difficulties in terms of lapse of banking & financial institutions and plunging demand. Prospects became very uncertain causing recession in major economies.

## **1.2 Scenario of Indian Banking Sector**

Retail banking as a business model is adopted by all the banks in India on account of multiple comfort factors for the banks viz. acquisition of a huge customer base, multiple product offerings, better pricing and profitability, scope for cross selling and up selling financial and beyond financial products for increased per customer revenue and of course better risk proposition. With the changing paradigm of technology as the driver for retail banking explosion, banks are embracing different strategies by redesigning their conventional business silos, re-engineering existing products and inventing products, services, channels, relationships to increase the share of the customers' wallet.

A recent study pointed out that the retail banking industry in India grew by a compounded annual growth rate of 30.5% between 1999 and 2004 and the figures will be much higher based on the performance of the banks in this space in the subsequent years. Retail Banking is expected to grow at above 30% and retail assets are expected to touch a whopping \$300 billion by 2010. But even with this growth rate, still the potential for the growth in retail assets looks very promising. The contribution of retail assets to Gross Domestic Product (GDP) in India is 6% and is comparatively lesser than that of other Asian counterparts like China (15%), Malaysia (33%), Thailand (24%) and Taiwan (52%). This indicates the lower level of penetration of retail banking in India and strengthens the views and strategies of the retail players.

A report by McKinsey & Company on 'Emerging Challenges to the Indian Financial System' (April 2007) has highlighted the huge potential available for personal financial services and the different spaces available for banks to encash this potential.

### **1.3 Customer Service and Satisfaction on Banking**

This involves understanding customer profile, their socio-economic and demographic background, their psychographic make-up, motivations behind their savings, awareness of and attitude to various modes of savings, and reasons for their preference for one form of savings over another. This will help bankers in providing new banking services/products through which even non-bank customers can be adopted.

### **1.4 Customer Services**

Launching new schemes with advertisements attracts new depositors. However, what ultimately sustains the process of generation of new deposits and continues the acceleration of deposit mobilization is the quality of customer service as perceived by customers. Bank's performance in different banking services like withdrawal of cash, collection of cheques, quality and adequacy of infrastructural facilities available to customers, attitudes of bank employees towards customers, promptness, and general attitude have to be analysed and evaluated before strategy formulation.

## **II. Review of Literature**

Significant reviews related to banking and service satisfaction has been discussed below to emphasize the need for pursuing this study by the researchers.

**Amudha et al. (2012)** study the customer satisfaction toward quality of service. They state that customers don't perceive a good value for the products that they purchased, because the quality and usage of the products are not up to their satisfaction level.

The factors affecting customer satisfaction in the Spanish e-banking services were studied by **Guinalú et. al (2008)**. The major factor which emerged affecting customer satisfaction in Spanish e-banking services was website usability.

The factors influencing customer satisfaction in the retail banking sector of Pakistan were investigated by **Jamal and Naser (2003)**. The analysis was done based on data collection of a structured questionnaire a survey, which looked into determinants of customer satisfaction in the retail banking sector of Pakistan. Service quality was found to be an important determinant of customer satisfaction.

Research by **Singh (1985)** on Bank Marketing found that a good number of banks in India had taken steps to make use of internal marketing for purposes of raising the customer service consciousness, and business mindedness on the part of their employees.

Research by **Lindgreen and Crawford (1999)** suggests that for employee empowerment to work there has to be investment in proper customer focused staff training to enhance such different skills as industry knowledge, customer service communications, presentation and team work.

### III. Analysis and Interpretation

**Table 1. Regression analysis for customer perceived satisfaction and different strategies of banks**

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.604 <sup>a</sup>	.365	.350	6.19395	.365	24.249	12	507	.000

**Table 2. Anova**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	11163.600	12	930.300	24.249	.000 <sup>a</sup>
Residual	19451.075	507	38.365		
Total	30614.675	519			

a. Predictors: (Constant), Banking Strategies

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b. Dependent Variable: Customer Perceived satisfaction

**Table 3. Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	82.880	6.454		12.841	.000
CRM strategies	-.565	.139	-.171	-4.079	.000
Customer acquisition strategies	.392	.134	.110	2.926	.004
Product / Service development strategy	-.723	.155	-.188	-4.661	.000
Strategies for customer enquiries for products	.143	.108	.053	1.317	.188
Promotion strategies	1.843	.189	.405	9.730	.000

Strategies for customer retention	.354	.119	.115	2.970	.003
Strategies for service quality	.887	.121	.265	7.334	.000
Risk measurement strategies	-.575	.162	-.149	-3.543	.000
Branding strategies	-.958	.185	-.206	-5.176	.000
Brand reinforcement strategies	-.192	.171	-.044	-1.125	.261
Co-branding strategies	.138	.248	.021	.558	.577
Sales strategies	.811	.192	.176	4.231	.000

a.: Customer Perceived Satisfaction

The above table 3 summarizes the results of the analysis of variance. Sum of squares, degrees of freedom, mean square are displayed for two sources of variations, regression and residual. The above output for regression displays information about the variations accounted for by the model. The output for a total (30614.675) is the sum of information for regression (11163.600) and residual (19451.075). A model with the large regression sum of squares in comparison with residual sum of squares indicates that the model accounts for the most of the variation in the dependent variable. F statistics (24.249) are the regression mean square divided residual mean squared. Regression degree of freedom is the numerated degree of freedom and the residual degree of freedom is the denominator degree of freedom for the 'F' statistics. The total number degree of freedom is the number of cases minus 1. If the significance of 'F' statistics is small (0.05), then the independent variable does a good job in explaining the variation in the dependent variable.

From the above co-efficient table, it has been concluded that the various banking strategies namely nine variables viz CRM strategies, Customer acquisition strategies, Product / Service development strategy, Promotion strategies for marketing products /services, Strategies for customer retention, Strategies for service quality improvement, Reputation risk measurement strategies, Branding strategies and Sales strategies have significantly contributed for predicting the customer perceived satisfaction of banking activities / strategies and it concluded that customers had accepted that these strategies are satisfied by the customers.

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#### **IV. Findings and Suggestions**

The analysis discussed above clearly depicts that promotional strategies and service quality strategies were followed in the bank attracted by the customers. Other strategies were customer acquisition strategies, branding strategies, co-branding strategies and brand reinforcement strategies should be considered by the banks which were not accepted or much incomprehensible by the customers. Bankers should concentrate on these strategies for their growth and development of bank and nation.

#### **V. Conclusion**

Thus, banking in the days to come will be a challenging one, which will be marked by high expectations of customers, who are well informed and possess the technical knowledge to conduct banking transaction from home or office or while on move. Although powerful and useful strategies plays an important role in banking business, yet personalised service will continue to have relevance in Indian banking – where a large proportion of the country's population is still illiterate. To sum up, it can be said that with increased competition, Indian banks face the challenge of sustenance and for these they need to develop proactive strategies with focus on product innovation, off-balance sheet activities to increase their income from non-core activity, efficiency in service delivery process, effective risk management etc. and more importantly on customer satisfaction through tailor-made product packages.

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