# IMPACT OF ORGANIZATIONAL CLIMATE ON ORGANIZATIONAL CITIZENSHIP BEHAVIOUR WITH RESPECT TO AUTOMOTIVE INDUSTRIES AT AMBATTUR INDUSTRIAL ESTATE, CHENNAI.

A.K. Subramani<sup>1</sup>, Dr. N. Akbar Jan<sup>2</sup>, Dr.Mamta Gaur<sup>3</sup>, and N. Vinodh<sup>4</sup>

**Abstract:** The Indian auto industry is one of the largest in the world with an annual production of 23.37 million vehicles in FY 2014-15, following a growth of 8.68 per cent over the last year. The automobile industry accounts for 7.1 per cent of the country's gross domestic product (GDP). In addition, several initiatives by the Government of India and the major automobile players in the Indian market are expected to make India a leader in the Two Wheeler (2W) and Four Wheeler (4W) market in the world by 2020.

In the current scenario, the changes in economy and the hyper competition demands dynamic working environment in automotive industries, which urges to find new ways of motivating and retaining valuable employees with in the organizations. Here the term 'organizational climate' plays a vital role, by providing the congenial climate in the organization, 'organizational citizenship behaviour' can be created among the employees in the Automotive industries.

The main objective of this paper is to develop Structural Equation Model to study the impact of Organization Climate on Organization Citizenship Behaviour in Automotive Industries at Ambattur Industrial estate, Chennai. The Organizational Climate questionnaire was measured through 8 scales (36 items) and Organizational Citizenship behaviour was developed based on Organizational Citizenship Behaviour Checklist (OCB-C) 20 Items questionnaire. The respondents who participated in the survey were carrying out among workers and office staff working in Automotive industries. Sample size of the survey is 472. Data were analyzed using SPSS 22 and AMOS 22.0.

The findings of this research revealed that the organizational climate is having positive impact on organizational citizenship behaviour and its components through Structural Equation modeling approach. Hence, it is proved that the compassionate organizational

<sup>1.</sup> Assistant Professor, Vel Tech Business School, Vel Tech University, Avadi, Chennai, Tamil Nadu, India; aksubramani@gmail.com / aksubramani@veltechuniv.edu.in

<sup>2,4</sup> Assistant Professor, Vel Tech High Tech Dr. Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai, Tamil Nadu, India; akbarjan.1975@gmail.com, nvinodhsiva@gmail.com

<sup>3.</sup> Professor and Dean, Vel Tech Business School, Vel Tech University, Avadi, Chennai, Tamil Nadu, India; mamtagaur@veltechuniv.edu.in.

climate nurture the positive attitudinal outcomes for the employees, which in turn create organizational citizenship behaviour among its employees.

**Keywords:** Organizational Climate, Organization Citizenship Behavior, Automotive industries, Akbar-Subramani SEM Model, Ambattur Industrial Estate.

#### 1. INTRODUCTION

The automotive industry is a widespread range of companies and organizations involved in the design, development, manufacturing, marketing, and selling of motor vehicles. Chennai is nicknamed as 'The Detroit of South Asia'. The automotive sector in India, includes automobile and auto component sub sectors. It is one of the key segments of the economy having broad forward and backward linkages with other important segments of the economy. It contributes about 4% to India's Gross Domestic Product (GDP) and five percent to India's industrial production. The well-developed Indian automotive industry ably fulfills this catalytic role by producing a comprehensive variety of vehicles like passenger cars, light, medium and heavy commercial vehicles, multipurpose vehicles such as jeeps, scooters, motorcycles, mopeds, three wheelers, tractors etc.

Organizational Climate is a relatively enduring quality of the internal environment of an organization that is experienced by its members, influences their behavior and it can be described in terms of the values of a particular set of characteristics of the organization. Climate influences motivation, performance and satisfaction in automotive industries. Organization Citizenship Behaviour refers to anything positive and constructive that employees do, of their own volition, which cares co-workers and benefits the company.

## 1.1. Organizational Climate

Climate of an organization is somewhat like the personality of a person. Just as every individual has a personality that makes him distinctive and unlike from other persons. Each organization has an organizational climate that clearly distinguishes it from other organizations. Basically, the organizational climate reflects a person's perception of the organization to which he belongs. It is a set of unique characteristics and features that are perceived by the employees about their organizations which serves as a vital force in influencing their behaviour. Thus, organizational climate in a comprehensive sense, can be understood as the social setting of the organization.

Organizational Climate (OC) can be defined as a set of attributes specific to a particular organization that may be induced from the way that organization deals with its members and its environment (*Campbell* et al, 1970). For the individual members within the organization, climate takes the form of a set of attitudes and experiences which define the organization in terms of both static characteristics

(such as degree of autonomy) and behaviour outcome and outcome-outcome contingencies". Watkin and Hubbard stated that high-performing organizations have climates with particular measurable characteristics, which has exposed how organizational climate can directly account for up to 30% of the variance in key performance measures (Watkin & Hubbard, 2003). This is sustained by research that examined the relationship between work environments, and the relative employees' performance (Wiley & Brooks, 2000). Watkin and Hubbard accepted that organizational climate does make a difference to organizations' performance because 'it indicates how energizing the work environment is for employees' (Watkin & Hubbard 2003).

# 1.2. Organization Citizenship Behaviour

Dennis Organ is generally considered the father of Organizational Citizenship Behaviour (OCB). Organ expanded upon Katz's (1964) original work. OCB is defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (Organ, 1978). Organ's definition of OCB includes three critical aspects that are central to this construct. Earlier, OCBs are thought of as discretionary behaviors, which are not chunk of the job description, and are performed by the employee as a result of personal choice, whereas later it was identified that OCBs go above and beyond that which is an enforceable requirement of the job description. Finally, OCBs contribute positively to overall organizational effectiveness.

# **Factors affecting Organization Citizenship Behaviour**

- Altruism: Altruism consists of discretionary behaviour which are expected at helping specific persons in an organizational setup.
- Courtesy: Courtesy comprises of actions such as giving others prior notice, issuing reminders to others, checking with others before taking action, & passing information.
- Sportsmanship: It denotes activities that employees abstain from doing such as complaining & filing petty grievances.
- Conscientiousness: It was formerly called generalized compliance, refers to employees going beyond minimal requirements in resounding out their assigned tasks.
- Civic virtue: It is defined as accountable participation in the political life of the organization.

#### 2. STATEMENT OF THE PROBLEM

Organizational Climate refers to the psychological environment as reflected in attitudes and perceptions of the employees. To understand the employees' needs, concerns, and perceptions Organizational climate must be assessed. Individuals in an organization have certain expectations and fulfillment of these expectations depends upon their perception as how the organization climate provides a type of work environment in which individual feels satisfied or dissatisfied.

In this context following research question arise with reference to the organization, taken for the study namely,

What is the impact of organization climate towards organization citizenship behavior among employees working in automotive industries, Chennai?

#### 3. REVIEW OF LITERATURE

# 3.1. Organizational Climate

Organizational climate is a meaningful construct with significant implications for understanding human behavior in organizations (Allen, 2003 and Glission & James, 2002). Organizational climate research began with analysis at the individual level, concentrating on what is termed psychological work climate. In this approach, individual co-workers are asked to indicate the climate at their workplace (Tordera et al 2008). The concept of organizational climate emerged, which is shared amongst the members of the work or organizational unit. It is measured by averaging the individual scores of psychological work climate (Gillespie et al, 2008).

According to Bliese aggregate values of organizational climate should only be used if there is sufficient agreement in the individual climate ratings (Bliese, 2000). Though, a lack of agreement concerning individual climate ratings has in itself emerged as an interesting topic of research. Differences in variance in climate ratings from one unit to another may be relevant for explaining outcomes. This variance is now known as climate strength (Lindell & Brandt, 2000 and Dawson et al, 2008).

A high variance indicates that members of an organization differ in how they view the climate of the organization. A low variance indicates that they agree on the climate in their organization. In the latter case, the organization can be said to have a strong organizational climate (Schyns, et al, 2009).

A number of definitions of organizational climate have been given in the various studies on the concept, and although a precise and unitary definition of organizational climate does not exist, researchers agree that certain characteristics describe the construct and differentiate it from other concepts (Gerber, 2003).

# 3.2. Organizational Citizenship Behavior (OCB).

It is not easy for organizations to predict what they can do to influence OCB. However, the researchers predict that organizational climate can motivate and direct the activities and behaviors of employees to affect OCB (Maamari & Messarra, 2012).

OCB can be defined as, "performance that supports the social and psychological environment in which task performance takes place" (Organ, 1997).

OCB is discretionary behaviors on the part of an employee that directly promotes the effective functioning of an organization, independent of the employee's objective productivity (MacKenzie et al, 1998). Separating the OCB either as extra-role or in-role behavior of the employee in one work group will make many researchers undergoing some difficulties in distinguishing whether the employee's performance is an OCB or not (Castro et al, 2004).

#### 4. RESEARCH METHODOLOGY

The main objective of the study is to develop Structural Equation Model to study the impact of Organization Climate on Organization Citizenship Behavior in Automotive Industries, Ambattur Industrial Estate, Chennai. The Organizational Climate questionnaire was measured through 8 scales. i.e. work environment, role clarity, reward system, career development, communication, innovation and training and consists of 36 items and Organizational Citizenship behaviour was developed based on Organizational Citizenship Behavior Checklist (OCB-C) 20 Items questionnaire. Five–point Likert–type scales (1=strongly disagree, 5=strongly agree) was used to record the responses to the items in the OC questionnaire, whereas to record the responses of OCB questionnaire Five point scale (1- Never, 2- Once or Twice, 3 – Once or twice per month, 4 – Once or twice per week, 5 – Always). A survey instrument was used to collect data required to test the research hypotheses. To collect the data, the researchers approached the Automotive industries located at Ambattur Industrial estate, Chennai city and they extended their support which facilitated us in conducting the survey. The data were collected during October 2015. A total of 550 questionnaires were distributed at ten Automotive companies and received back filled 493 questionnaires in Chennai. After careful validation and scrutiny of the filled questionnaire. 21 questionnaires were excluded due to missing data. A total of 472 usable questionnaires were finally received, representing a response rate of 86 percent.

The survey was designed to collect data from workers and clerical staff employed in shop floor to test the hypothesized model. The respondents encompassed male and female employees, with an average work experience of 2 years and within the age group of 20–40 years only. The questionnaires were distributed and collected with the HR department's support in each company. Quantitative research methods were used in this study. This research scrutinized the relationship between independent and dependent variables. Data were analyzed using SPSS 20 and AMOS 22.0.

#### 5. INFERENCE OF RESULTS

One of the primary and critical measures for evaluating results is the test of data reliability. The internal consistency of the model is measured by reliability. Cronbach alpha was used to test the reliability of measure and it is one of the most important criteria for valuing research instruments. Reliability measures the internal consistency of the model. In this research, Cronbach's alpha has been used to test the reliability of the measures. Higher the value of alpha better is the reliability measure. The reliability acceptance depends on an alpha coefficient of more than 0.7 (George and Mallery, 2003). The Cronbach alpha coefficient was computed for the data which encompassed of all the 13 constructs which is shown in Table 1.

Table 1
Alpha coefficient of constructs

S.No	Construct	Items	Alpha	Remarks
1.	Working Environment	6	0.856	Good
2.	Role Clarity	4	0.943	Excellent
3.	Respect	4	0.902	Excellent
4.	Communication	4	0.889	Good
5.	Reward System	4	0.873	Good
6.	Career Development	5	0.886	Good
7.	Innovation	4	0.862	Good
8.	Training and Development	5	0.870	Good
9.	Altruism	4	0.878	Good
10.	Civic Virtue	4	0.821	Good
11.	Sportsmanship	4	0.774	Acceptable
12.	Courtesy	4	0.805	Good
13.	Conscientiousness	4	0.803	Good

(Source: Primary Data)

From Table 1 it can be concluded that the reliability coefficient for all the constructs are above the acceptable tolerance level.

The test of sampling adequacy required to be performed in order to regulate whether the sample is adequately appropriate for factor analysis (Anderson and Herbertson, 2003). Therefore the Kaiser–Meyer–Olkin (KMO) test of sampling adequacy and Bartlett's test of Sphericity were conducted. The size of the partial correlation amongst the variables considered in each constructed is tested through KMO because small values of correlations amongst the pairs will lack adequate explanation of the other variables in the group and will indicate the inappropriateness of factor analysis. A minimum accepted KMO value of 0.50 was fixed (Kaiser, 1974). The values are presented in Table 2.

Table 2 KMO and Bartlett's values

S.No	Construct	KMO	Bartlett's
1.	Working Environment	0.816	0.000
2.	Role Clarity	0.841	0.000
3.	Respect	0.692	0.000
4.	Communication	0.748	0.000
5.	Reward System	0.732	0.000
6.	Career Development	0.738	0.000
7.	Innovation	0.737	0.000
8.	Training and Development	0.668	0.000
9.	Altruism	0.743	0.000
10.	Civic Virtue	0.717	0.000
11.	Sportsmanship	0.676	0.000
12.	Courtesy	0.681	0.000
13.	Conscientiousness	0.698	0.000

(Source: Primary Data)

Based on the values given in Table 2 of KMO, the sample adequacy for all the variables that defined the constructs were found to be quite acceptable. The Bartlett's test values for all the construct variables showed that the observed significance level of factors being less than significance value of 0.05, the initial hypotheses is rejected to conclude that the correlation matrix is not an identity matrix and the relationship among the variables is healthy. If the Bartlett's chi-square value is not significant and positive we advise not to use factor analysis because the variables will not be together loaded properly (Marjorie, Lackey et al., 2003). The KMO value was found to be comfortably adequate and the chi-square value out of the Bartlett's test was found to be significantly positive for the data contained in all the constructs in the study.

# 6. AKBAR-SUBRAMANI STRUCTURAL EQUATION MODEL FOR IMPACT OF ORGANIZATIONAL CLIMATE ON ORGANIZATIONAL CITIZENSHIP BEHAVIOUR

The primary objective of the study is to empirically test the relationship between Organizational Climate (OC) and Organizational Citizenship behaviour (OCB). The structural equation modeling technique was used to test the impact of organizational climate on Organizational Citizenship Behaviour and the final model is presented in Figure 1 (a &b).

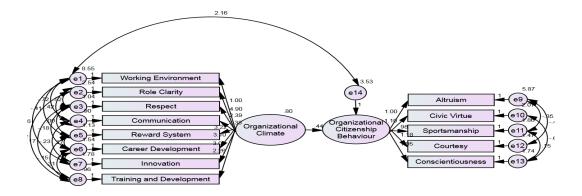


Figure 1(a): SEM Model based on Unstandardised Estimates

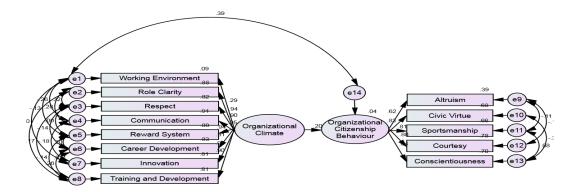


Figure 1(b): SEM Model based on Standardised Estimates

The relationship between observed variables such as work environment, role clarity, reward system, communication, innovation and training, altruism, conscientiousness, civic virtue, courtesy, sportsmanship and unobserved variables like organizational climate and Organizational Citizenship Behaviour were studied with the help of "Akbar-Subramani impact of OC on OCB structural equation model".

# 6.1. Variable used in the Structural Equation Model are

- I. Observed endogenous variables are Working Environment, Role Clarity, Respect, Communication, Reward System, Career Development, Innovation, Training, Organizational Citizenship Behaviour, Altruism, Civic Virtue, Sportsmanship Courtesy, and Conscientiousness.
- II. Unobserved, endogenous variables are Organizational climate and Organizational Citizenship Behaviour.
- III. Unobserved, exogenous variables are, e1: Error term for Working Environment, e2: Error term for Role Clarity, e3: Error term for Respect, e4: Error term for Communication, e5: Error term for Reward System, e6: Error term for Career Development, e7: Error term for Innovation, e8: Error term for Training, e9: Error term for Altruism, e10: Error term for Civic Virtue, e11: Error term for Sportsmanship, e12: Error term for Courtesy, e13: Error term for Conscientiousness, and e14: Error term for Organizational Citizenship Behaviour.

Hence the total number of variables in the model are 29, which includes 13 observed variables, 16 unobserved variables, 15 exogenous variables, and 14 endogenous variables.

# **6.2.** Hypothesis Formulation

On the basis of above presented model, the following hypothesis is proposed:

H0: Organizational Climate is having positive impact on organizational citizenship behaviour.

Table 3 Regression weights for employees' work related attitude

Measured Variables		Latent Variable	Unstandard- ized Co-efficient	S.E	Standardized Co-efficient	C.R value	p value
Organization- al Citizenship Behaviour	<b>←</b>	Organizational climate	0.438	0.103	0.20	4.260	< 0.001**
Working Envi- ronment	<b>←</b>	Organizational climate	1.000	-	0.29	-	-
Role Clarity	$\leftarrow$	Organizational climate	2.260	0.353	0.94	6.405	< 0.001**
Respect	$\leftarrow$	Organizational climate	4.904	0.762	0.90	6.432	< 0.001**
Communication	<b>←</b>	Organizational climate	3.051	0.455	0.95	6.704	< 0.001**
Reward System	$\leftarrow$	Organizational climate	3.095	0.482	0.94	6.417	< 0.001**
Career Development	$\leftarrow$	Organizational climate	2.391	0.373	0.91	6.405	< 0.001**
Innovation	$\leftarrow$	Organizational climate	3.377	0.537	0.90	6.293	< 0.001**
Training and Development	$\leftarrow$	Organizational climate	3.217	0.507	0.90	6.346	< 0.001**
Altruism	<b>←</b>	Organizational Citizenship Behaviour	1.000	-	0.62	-	-

Civic Virtue	<b>←</b>	Organizational Citizenship Behaviour	1.104	0.083	0.93	13.305	< 0.001**
Sportsman- ship	<b>←</b>	Organizational Citizenship Behaviour	0.985	0.075	0.81	13.121	< 0.001**
Courtesy	<b>←</b>	Organizational Citizenship Behaviour	1.181	0.083	0.88	14.158	< 0.001**
Conscientious- ness	- ←	Organizational Citizenship Behaviour	1.047	0.079	0.84	13.192	< 0.001**

Note: \*\* Denotes significant at 1% level

(Source: Primary Data)

The Table 3 indicates significant loadings on all variables of each latent predictor and latent criteria factors. Factors of OC are significantly correlated, as are the constructs of OCB.

From the Table 3, it is identified that the coefficient value for Organizational climate is 0.438 which represents partial effect over organizational citizenship behaviour holding the other variables as constant. The estimated of positive sign implies that organizational citizenship behaviour would increase by 0.438 for every unit increase in Organizational climate in the Automotive industries and this coefficient value is significant at 1% level.

Table 4
Testing Hypothesis

Hypothesis	Hypothetical relationship	Result
There is no significant causal relationship between organizational climate and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between Working Environment and organizational climate	Positive	Rejected
There is no significant causal relationship between Role Clarity and organizational climate	Positive	Rejected

There is no significant causal relationship between Respect and organizational climate	Positive	Rejected
There is no significant causal relationship between Communication and organizational climate	Positive	Rejected
There is no significant causal relationship between Reward System and organizational climate	Positive	Rejected
There is no significant causal relationship between Career Development and organizational climate	Positive	Rejected
There is no significant causal relationship between Innovation and organizational climate	Positive	Rejected
There is no significant causal relationship between Training and Development and organizational climate	Positive	Rejected
There is no significant causal relationship between Altruism and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between Civic Virtue and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between job involvement and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between Sportsmanship and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between Courtesy and Organizational Citizenship Behaviour	Positive	Rejected
There is no significant causal relationship between Conscientiousness and Organizational Citizenship Behaviour	Positive	Rejected

(Source: Primary Data)

From the Table 4, it is found that the result of hypothesis all the measured variables such as Working Environment, Role Clarity, Respect, Communication, Reward System, Career Development, Innovation, Training are having positive association with Organizational climate, similarly all other measured variables are having positive association with organizational citizenship behaviour in the selected Automotive companies in Chennai.

Table 5 Model Fit Summary

S. No	Test Factor	Value	Suggested Value
1.	CMIN or Chi Square Value	4.442	Range from as high as 5.0 (Wheaton et al, 1977) to as low as 2.0 (Tabachnick and Fidell, 2007).
2.	P value	0.054	> 0.05 (Hair et al. 1998)
3.	GFI (Goodness of Fit Index))	0.941	>0.90(Hair et al. 2006)
4.	AGFI (adjusted Goodness of Fit Index)	0.900	>0.90 (Daire et al. 2008)
5.	CFI (Comparative Fit Index)	0.976	> 0.90 (Hu and Bentler, 1998)
6.	RMR (Root Mean Square Residuals)	0.072	<0.08 (Hair et al. 2006)
7.	RMSEA (Root Mean Square Error of Approximation)	0.079	<0.08 (Hair et al. 2006)
8.	TLI (Tucker-Lewis Index)	0.959	> 0.95 (Hu and Bentler, 1998)
9.	NFI (Normed Fit Index)	0.970	> 0.95 (Hu and Bentler, 1998)

(Source: Primary Data)

From the above Table 5, it is found that the calculated p value is 0.054, which is greater than 0.05 which indicates perfect fit and Chi-square value 4.442 designates good fit. Here GFI, AGFI, CFI values are greater than 0.9 which represents good fit. The calculated value of TLI and NFI are greater than 0.95 which indicates absolute fit and also it is found that RMR is 0.072 and RMSEA value is 0.079 which is less than 0.08 which indicates good fit.

Table 6 Squared Multiple correlations

S.No	Particulars	Estimate
1.	Organizational Citizenship Behaviour	0.042
2.	Conscientiousness	0.699
3.	Courtesy	0.777
4.	Sportsmanship	0.657
5.	Civic Virtue	0.685
6.	Altruism	0.386
7.	Reward System	0.880
8.	Communication	0.910
9.	Role Clarity	0.815
10.	Career Development	0.832
11.	Innovation	0.807
12.	Respect	0.883
13.	Training and Development	0.809
14.	Working Environment	0.085

(Source: Primary Data)

The table 6. Presents squared multiple correlations of the constructs of OC and OCB.

# 7. RESULTS AND DISCUSSIONS

- H1: There is significant causal relationship between organizational climate and organizational citizenship behaviour.
- H2: There is significant causal relationship between working environment and organizational climate.
- H3: There is significant causal relationship between Role Clarity and organizational climate.
- H4: There is significant causal relationship between Respect and organizational climate.

- H5: There is significant causal relationship between Communication and organizational climate.
- H6: There is significant causal relationship between Reward System and organizational climate.
- H7: There is significant causal relationship between Training and Development and organizational climate.
- H8: There is significant causal relationship between Innovation and organizational citizenship behaviour.
- H9: There is significant causal relationship between Altruism and organizational citizenship behaviour.
- H10: There is significant causal relationship between Civic Virtue and organizational citizenship behaviour.
- H11: There is significant causal relationship between Sportsmanship and organizational climate.
- H12: There is significant causal relationship between Courtesy and organizational citizenship behaviour.
- H13: There is significant causal relationship between Conscientiousness and organizational citizenship behaviour.

From the path analysis, it is found from the result of hypothesis that all the measured variables Working Environment, Role Clarity, Respect, Communication, Reward System, Career Development, Innovation, Training, Altruism, Civic Virtue, Sportsmanship Courtesy, and Conscientiousness are having positive association with the latent variables organizational climate and Organizational Citizenship Behaviourin the selected Automotive companies. Structural Equation Modeling was used to test the conceptual model. The conceptual model developed was found to be fit.

#### 8. CONCLUSION

Employees in the organizations have various attitudes that affect their behavior in the organization. Organizational climate is the important determinant which may have the impact on their psychological environment and work related attitude, whereas Organizational citizenship behavior has a determinant role in the organizational process and in changing the traditional environment into a dynamic and efficient environment as one of the new concepts of organizational behavior management which puts emphasis upon employees and climate of the organization. This study examines the framework of employees' perception

towards impact of organizational climate on organizational citizenship behaviour in Automotive sector, Ambattur, Chennai. The findings also reveal that the organizational climate is having positive impact on organizational citizenship behaviour and its components such as Altruism, Civic Virtue, Sportsmanship Courtesy, and Conscientiousness. The researchers 'Akbar-Subramani' have proved the SEM is fit, therefore by providing the factors for organizational climate a psychological environment can be structured to achieve organizational citizenship behaviour. So from the study, it is proved that the compassionate organizational climate nurture the positive attitudinal outcomes for the employees, which in turn create organizational citizenship behaviour among its citizens i.e. employees in the Companies.

# References

- Allen, D.K. (2003), "Organizational climate and strategic change in higher education: Organizational insecurity", *Higher Education*, 46, No. 1, pp. 61–92.
- Anderson T M, and Herbertson T T (2003), "Measuring Globalization", IZA Discussion Paper (817) Available from: http://ssrn.com/abstract=434540.
- Bliese, P.D. (2000), "Within-group agreement, non-independence, and reliability—implications for data aggregation and analysis", in Klein, K. and Kozlowski, S.W.J. (Eds), Multilevel Theory, Research, and Method in Organizations, Jossey-Bass, San Francisco, CA, 349-81.
- Campbell, J. R., Dunnettee, M. D., Lawler, E. E. III, and Weick, K. E. Jr. (1970), "Managerial behaviour, performance and effectiveness", McGraw-Hill, New York. P. 145.
- Castro, C., Barroso, E., Armario, M., & Ruiz, D. M. (2004), "The influence of employee organizational citizenship behavior on customer loyalty", *International Journal of Service Industry Management*, 15, No.1, pp. 27-53.
- Daire Hooper D, Coughlan J, Mullen M, "Structural Equation Modelling: Guidelines for Determining Model Fit", Electronic Journal of Business Research Methods. January 2008, 6, No. 1, pp. 53-60.
- Dawson, J.F., Gonza'lez-Roma, V., Davis, A. & West, M.A. (2008), "Organizational climate and climate strength in UK hospitals", European Journal of Work and Organizational Psychology, 17, pp. 89-111.
- George D, and Mallery P (2003), "Reliability test, SPSS for Windows step by step: A Simple Guide and Reference", 4th Edition, Chapter 18, Allyn & Bacon, Boston, p. 52–56.
- Gerber, F.J. (2003), "Die involved van organizational climate op works motivation [The influence of organizational climate on work motivation]. M.Com dissertation, University of South Africa, Pretoria.

- Gillespie, M.A., Denison, D.R., Haaland, S., Smerek, R.E. & Neale, W.S. (2008). Linking organizational culture and customer satisfaction: results from two companies in different industries, *European Journal of Work and Organizational Psychology*, 17, pp. 112-32.
- Glission, C., & James, L.R. (2002), "The cross-level effects of culture and climate in human service teams", *Journal of Organizational Behavior*, 23, No. 6, pp. 767–794.
- Hair, J. F., Anderson, R. E., Tatham, R. L., and Black, W. C. (1998), "Multivariate Data Analysis", Prentice-Hall International, Inc., 5th Edition, Chapter 11.
- Hair, J., Black, W., Babin, B., Anderson, R., Tatham (2006), R, "Multivariate data analysis" (6th edition), Uppersaddle River, N.J.: Pearson Prentice Hall. p. 172-175.
- Kaiser F G (1974), "An index of factoral simplicity", Psychometrika, 39, No. 1, pp. 31–36.
- Lindell, M. K., & Brandt, C.J. (2000), "Climate quality and climate consensus as mediators of the relationship between organizational antecedents and outcomes", *Journal of Applied Psychology*, 85, pp. 331-48.
- Li-tze Hu, Peter M Bentler (1998), Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification, Psychological methods, *American Psychological Association*. 3, No. 4, pp. 420-424.
- Maamari, B. E., &Messarra, L. C. (2012), "An empirical study of the relationship between organizational climate and organizational citizenship behavior", *European Journal of Management*, 12, No. 3, pp. 1-14.
- MacKenzie, S.B., Podsakoff, P.M. & Ahearne, M. (1998). "Some possible antecedents and consequences of in-role and extra-role salesperson performance", *Journal of Marketing*, 62, No. 3, pp. 69-86.
- Marjorie P A, Lackey N R et al. (2003), An overview of factor analysis, Making Sense of Factor Analysis: the use of Factor Analysis for Instrument Development in Health Care Research, Chapter 5, Sage Publication, Inc, Thousand Oaks, CA, 131–164.
- Organ, D. W. (1997), "Organizational citizenship behavior: It's construct cleanup time", *Human Performance*, 10, No. 2, pp. 85-97.
- Peter M Bentler, Douglas G Bonett. (1980), "Significance tests and goodness of fit in the analysis of covariance structures", *Psychological bulletin, American Psychological Association*. 88, No. 3, pp. 582-588.
- Schyns, B., Veldhoven, M., & Wood, S. (2009). Organizational climate, relative psychological climate and job satisfaction, The example of supportive leadership climate, *Leadership & Organization Development Journal*. 30 (7), 649-663.
- Tabachnick, Barbara G, and Linda S. Fidell (2007), "Using Multivariate Statistics", Boston: Pearson / Allyn & Bacon, pp. 120-124.

- Tordera, N., Gonza'lez-Roma, V., & Peiro, J. M. (2008), "The moderator effect of psychological climate on the relationship between leader-member exchange (LMX) quality and role overload", *European Journal of Work and Organizational Psychology*, 17, pp. 55-72.
- Watkin, C., & Hubbard, B. (2003), "Leadership motivation and the drivers of share price: The business case for measuring organizational climate", *Leadership and Organization Development Journal*, 24, No. 7, pp. 380–386.
- Wheaton, B., Muthen, B., Alwin, D., F., and Summers, G. (1977), Assessing Reliability and Stability in Panel Models, *Sociological Methodology*, 8, No. 1, pp 84-136.
- Wiley, J.W., & Brooks, S.M. (2000), The high-performance organizational climate. In N.M. Ashkanasy, C.P.M. Wilderom & M.F. Peterson (Eds.). *Handbook of organizational culture and climate* (177–191). California: Sage.