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Perception of drivers and conductors towards human resource management practices of Kerala state road Transport Corporation: A discriminant analysis

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Abstract
Human Resource Management is a management function that helps managers to recruit, select, train and develop members for an organization. HRM is concerned with the people's dimensions in organizations. HRM refers to a set of programs, functions, and activities designed and carried out. The present study compares the perception of human resource management practices between the drivers and conductors in Kerala State Road Transport Corporation with the help of Canonical Discriminant Analysis. For the purpose of the study, 378 drivers and 382 conductors were considered from three regions of KSRTC, namely, north, central and south regions through disproportionate stratified random sampling method. The study identified that the selected predictor variables of human resource management practices have direct effect in discriminating the perception between drivers and conductors of KSRTC. Hence it is concluded from the discriminant analysis that there is a significant difference in the perception between the drivers and conductors towards human resource management practices of KSRTC.

Keywords: Discriminant Analysis, Employees perception, HR practices, Road Transport Corporation.

1. Introduction
Human resource is the most strategic resource and no other resource can be fully utilized to generate income and wealth of a nation without the active involvement of this resource. Human resource accounts for a large part of national output and there is a wide scope for increasing national wealth through their proper development. It is pertinent to mention that human resources are responsible for making use of physical resources and for the transformation of traditional economies into modern and industrial economies.
HRM is management function [1] that helps managers to recruit, select, train and develop members for an organization. Obviously HRM is concerned with the people's dimensions in organizations. HRM refers to set of programs, functions, and activities designed and carried out.
KSRTC is a statutory corporation established under the Transport Department in 1965. The Registered office of the corporation is located at Transport Bhavan, Thiruvananthapuram. The corporation is engaged in the operation of passenger buses. The Kerala State Road Transport Corporation began as the Travancore State Transport Department, constituted by the former Travancore Government with the intent of reorganizing the transportation services of the former state. Mr. E.G Salter, Assistant Operating Superintendent of London Passenger Transport Board, was appointed as Superintendent of the Transport Department on 20 September 1937. The Travancore Transport Department grew with nationalization of key interstate routes such as Thiruvananthapuram to Kanyakumari and Palakkad to Coimbatore.
The first fleet consisted of 60 Comet chassis fitted with Perkins diesel engines, imported from England. The bodies of the buses were built by the staff of the Travancore State Transport Department under the supervision of the Superintendent. The model for the selection of operating staff continues to be followed by the current operating staff. The Transport Department gave preference in recruitment for those who were likely to lose their private transport company jobs resulting from the nationalization of Thiruvananthapuram

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Kanyakumari route. Thus the Transport Department began with a staff of about a hundred graduates appointed as Inspectors and Conductors.

1.1 Review of Literature

Navaneetha Krishna, R. (2012) [2], studied the employee perception of Human Resource Management Practices in Karnataka State Road Transport Corporation, Bangalore. Here, the employees in KSRTC are categorized into 3 levels such as drivers and conductors, technical staff and administrative staff and from each level select 10% of the employees are selected as samples. The researcher found that the employees are satisfied with the overall Human Resource Management practices in Karnataka State Road Transport Corporation.

Cathrine Anitha, W. (2013) [3] had conducted a research study on Human Resource Management in Neyveli Lignite Corporation Limited. She had examined the effectiveness of HRM practices in individual areas and overall context of the corporation. She had concluded that the challenge before human resource management department was to actively coordinate, synergize and monitor the various areas of employees and achieve objectives of the corporation which the human resource development should utilize.

Jayaraman, C.V. (2013) [4] conducted a study on Management Practices in Kerala State Transport Corporation. Importance of human resource, personnel policies, recruitment, training, promotions, pay and allowances were analysed. Questionnaires were distributed among unskilled, semi-skilled, skilled, highly skilled, trade union leaders and officers for the purpose of collecting their opinions on the practices of personnel management department.

Manju, M, (2013) [5], investigated about the impact of HRM practices on employee performance in Telecom sector with reference to MTS India. The aim of this study is to examine the impact of HR practices on employee's performance. 50 MTS employees are selected for this purpose and correlation test was used to analyze the data by using SPSS. This study found that HR practices have positive correlation with employees' performance. The study also revealed that training has 66 percent influence on employees' performance and that selection has 62 percent influence on employee performance.

Ruchita, P., and Sahasrabudhe, S. (2013) [6], conducted a study on "Changing HRM practices with special reference to retention policies at TCS". This article was attempted to examine the various functions and HRM practices adopted at TCS with the main focus on its retention management. This paper was based purely on primary data. The study found out that the HRM for a global firm has become extremely challenging and challenges loom over right from the planning stage of HRM down to retention. The study also found that among all the functions, talent management and retention appears to be the most significant function of HRM. The study of retention policy at TCS reveals that career and personnel development of all employees are vital for organizational success and the employee oriented flexible retention policy based on its own value is a clear 'X' factor for the success of TCS in retention.

1.2 Statement of the Problem

The problem to manage employees efficiently and effectively depends on the behavioural part of the individual which comprised of satisfaction, dissatisfaction, perceptions and attitude, etc. The concept of satisfaction is not only associated to Monetary and Motivational Mechanism, however, it is also interconnected with HR functions like Recruitment, Selection, Training, Development, Performance Appraisal, Industrial relation and so on.

Human Resource is considered to be the most important asset for any organization and it is the source of achieving competitive advantage [7]. Without the cooperation of employees, an organization cannot become success. When employees are satisfied, then only they can serve the customers or passengers efficiently and effectively. Managing human resources is very challenging as compared to managing technology or capital and for its effective management, organization requires effective HRM system. HRM system should be backed up by sound HRM practices [8].

In this context, the researcher attempts to study the various aspects of HRM practices in KSRTC. The system of KSRTC is passing through a narrow path of intensive complexities as a result of the new economic policy and many other problems. So the present study strives to analyse the HR policies and practices followed by the KSRTC which are under the management and control of the government of Kerala. Hence the researcher made an attempt to compare the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation.

1.3 Objectives of the Study

To compare the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation.

2. Methodology and Sampling

The present study is descriptive and empirical in nature with prime objective to compare the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation by using Canonical Discriminant Analysis. This research work is carried out in Kerala State Road Transport Corporation and the study is purely based on the primary data. The researcher collects the data from the employees (Drivers and Conductors) of Kerala State Road Transport Corporation with the help of structured questionnaire.

On the basis of geographical area, Kerala state can be classified into three regions, namely, North, Central and South regions. Out of the 14 districts in Kerala, 5 districts are located in North region, 4 districts are located in Central region and 5 districts in South region. From each district the researcher selected samples for the study. There are 35,022 permanent employees working in Kerala State Road Transport Corporation (KSRTC) as on 31st December, 2014. The researcher selected only Drivers and Conductors for the study. There are 12,041 drivers and 12,187 conductors working in KSRTC as on 31st December, 2014. Thus the total study population constitutes 24,218 employees. The number of employees are large in number, hence the researcher decided to take the sample. The researcher has adopted the Krejcie and Morgan (1970) [9] table and arrived at a total sample of 760 respondents (378 Drivers and 382 conductors) from KSRTC at confidence level of 95% and a margin of error of 3.5%. Thus the samples are selected on the basis of disproportionate random sampling technique.

3. Results and Discussions
3.1 Discriminant Analysis

Discriminant Analysis is a statistical technique that satisfies the difference between two or more groups with respect to

several variables simultaneously and provides a means of classifying any object or individual into the group with which it is closely associated and to infer the relative importance of each variable used to discriminate between the different groups. A linear Discriminant function is the linear combination of predictor variables weighted in such a way that it discriminates among groups with least error (Gabriel Ogunmokun *et al.,* 2005) [10]. In this study it is used to compare the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation. The predictor variables considered for the study are Recruitment and Selection (X_1), Training and Development (X_2), Performance Appraisal (X_3), Rewards and Benefits (X_4), Welfare Measures (X_5) and Industrial Relations (X_6). Thus this study formulates the hypothesis as:

H$_{01}$: There is no difference in the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation.

Table 1: Box's M Test Results for suitability of data

Box's M		1585.461
F	Approx.	74.864
	df1	21
	df2	2112754.021
	Sig.	.000
Tests null hypothesis of equal population covariance matrices.		

Source: Primary data

The table 1 shows the Box's M Test Results for suitability of data for the Discriminant analysis, the significant F value. 000 indicates the suitability to proceed with the analysis.

Table 2: Tests of Equality of Group Means

Variables of Role Stressors	Wilks' Lambda	F	df1	df2	Sig.
Recruitment and Selection	.320	15.747	1	758	.000
Training and Development	.324	16.355	1	758	.000
Performance appraisal	.419	56.120	1	758	.000
Rewards and Benefits	.438	12.878	1	758	.000
Welfare Measures	.427	23.743	1	758	.000
Industrial Relation	.410	4.641	1	758	.032

Source: Primary data

Wilks' lambda is the ratio of the within-groups sum of squares to the total sum of squares. Wilks' lambda is very small for Recruitment and Selection (.320) and Training and Development (.324) which means that there is a strong group difference between the drivers and conductors in KSRTC. The mean values of Recruitment and Selection and Training and Development are significantly different between the two groups. Wilks' Lambda for Performance appraisal (.419), Rewards and Benefits (.438), Welfare Measures (.427) and Industrial Relation (.410) is comparatively high because there is no much difference in their mean values between the drivers and conductors in KSRTC. The F statistic is a ratio of 'between-groups variability' to the 'within-groups variability'. The value of F ratio with respect to degrees of freedom is very significant which is indicated in the significance value. The significance value of all six predictor variables of human resource management practices is less than 0.05 indicates that there exists a significant difference in the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation. The above two facts explain that the present segmentation is right and there exists a significant group difference.

Table 3: Eigen value and Canonical Correlation Analysis

Eigen value	% of Variance	Cumulative %	Canonical Correlation	Wilks' Lambda	Chi-square	Sig.
2.332[a]	100.0	100.0	.821	.311	134.273	.000
a. First 1 canonical discriminant functions were used in the analysis.						

Source: Primary data

The Eigen value is the ratio of 'between-groups sum of squares' and 'within-groups sum of squares'. The largest Eigen value corresponds to the maximum spread of the groups' means. Small Eigen accounts for very little of the total dispersion. The Eigen value for the discriminant function is 2.332 that indicates an evidence for a strong function and explains maximum spread of human resource management practices between the drivers and conductors in KSRTC. For the two groups, one discriminant function is formed and there will be one canonical correlation. The canonical correlation is a tool used to measure the relationship between discriminant function and the two groups. The canonical correlation between the discriminant function and the two group is very high which is 0.821, indicates that the function have strong relationship with the human resource management practices and the two groups of employees. Wilks' lambda for the overall discriminant function is 0.311 which indicates that the group means of human resource management practices are different between the drivers and conductors in KSRTC. A chi-square transformation of Wilks' lambda is used along with the degrees of freedom to determine the degree of significance. The significance value for the discriminant function is. 000 which is less than 0.05 indicates that group

means of human resource management practices differ significantly between the drivers and conductors in KSRTC.

Table 4: Canonical Discriminant Function Coefficients

Variables of Role Stressors	Function 1
Recruitment and Selection	.485
Training and Development	.061
Performance appraisal	.366
Rewards and Benefits	.011
Welfare Measures	.126
Industrial Relation	.039
(Constant)	2.813
Unstandardized coefficients	

Source: Primary data

Table 4 shows the Canonical Discriminant Function Coefficients which are estimated to discriminate the perception of human resource management practices between the drivers and conductors of KSRTC and these unstandardized coefficients are used to create the discriminant function in the form of equation like,

$$D = a + b_1X_1 + b_2X_2 + b_3X_3 \ldots\ldots\ldots\ldots + b_6X_6$$

D = Discriminant Function; a = Constant; b = Unstandardized beta coefficients of each variable and X_1, X_2, X3............. X_6 are the six predictor variables of human resource practices used in the study. Thus the discriminant function for the perception of human resource management practices between the drivers and conductors of KSRTC is formulated as follows:

D = 2.813 + (.485 X Recruitment and Selection) + (.061 X Training and Development) + (.366 X Performance appraisal) + (.023 X Rewards and Benefits) + (.126 X Welfare Measures) + (.011 X Industrial Relation)

The discriminant function coefficient indicates the partial contribution of each variable to the discriminant function. It is used to assess the unique contribution of all six predictor variables of human resource management practices to the discriminant function. It is identified that the unstandardized beta coefficients of each variables of human resource management practices are positive and which explains that, all the six predictor variables have direct effect in discriminating the perception of human resource management practices between the drivers and conductors of KSRTC. It also revealed that the Recruitment and Selection (.485) and Performance appraisal (.366) are the highest factors that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC. The other variables such as Welfare Measures (.126), Training and Development (.061) and Industrial Relation (.039) are the other factors that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC. The least factor that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC is industrial relation (.011).

Table 5: Classification Result

			Type of Bank	Predicted Group Membership		Total
				Driver	Conductor	
Original	Count		Driver	349	29	378
			Conductor	26	356	382
	%		Driver	92.3	7.7	100.0
			Conductor	6.8	93.2	100.0
a. 92.75% of original grouped cases correctly classified.						

Source: Primary data

The extent of correct classification table measures the degree of success of the classification on the basis of drivers and conductors. The number and percentage of cases correctly classified and misclassified are displayed in the table 5. Between the drivers and conductors in KSRTC, 349 out of 378 cases or 92.3 percent of them are correctly classified and only 29 cases or 7.7 percent of them are misclassified. Between the drivers and conductors in KSRTC, 356 out of 382 cases or 93.2 percent of them are correctly classified and only 26 cases or 6.8 percent of them are misclassified. From this, it can be clearly indentified that the segmentation of drivers and conductors in KSRTC is correct by 92.75 percent. Hence the hypothesis is rejected and it is inferred that there is a significant difference in the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation.

4. Conclusion
Human resource is the most critical factor for determining the efficiency and the effectiveness of an organization because it is precisely the people who will decide when and how to acquire and utilize various resources, including HR in the best interest of the organization. Road Transport will continue to be the dominant mode of transport in the country. Increased population and ongoing rapid urbanization is likely to take India's urban population to around 620 million in the next two decades. To contain the explosion of personal vehicle movement in cities, a very high dose of investment in public transport services is necessary. A policy framework supported by institutional arrangements must accord explicit priority to mass road transport with better amenities and facilities which make the passengers feel satisfied for what they pay for. State Government should assist RTC through funding and by providing proper training and development for employees to deliver better services to the passenger community.

It is revealed that the recruitment and selection and performance appraisal are the highest factors that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC. The other variables such as welfare measures, training and development and industrial relation are the other factors that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC. The least factor that discriminate the perception of human resource management practices between the drivers and conductors of KSRTC is industrial relation. It is also identified that all the six predictor variables of human resource management practices have direct effect in discriminating the perception of human resource management practices between the drivers and conductors of KSRTC. Hence it is concluded that there is a significant difference in the perception of drivers and conductors towards human resource management practices of Kerala State Road Transport Corporation.

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