

COST EFFECTIVENESS OF VEHICLES BY OUTSOURCING

A CASE STUDY OF CITY CIRCLE BHOPAL, M.P.M.K.V.V.CO.LTD

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ABSTRACT

The term "outsourcing" is also known as the transfer and delegation of some operation of business through external service provider. The purpose of outsourcing is to take advantage of service provider expertise in non-core activity with economies of scale so that organisation may reduce their expenses and also provide better quality of services, to their clients in this way, M.P.M.K.V.V. Co. Ltd. Has adopted this technique for reduce their cost and improving their financial condition. This research paper reflects cost effectiveness of vehicles through outsourcing of city circle Bhopal. The M.P.M.K.V.V. Co. Ltd. Bhopal carried out various activity out of them some activities were outsourced but in this research paper, we have covered only one activity i.e. vehicles. Vehicles are needed for day to day execution of various job like operation and maintenance of electrical equipments, line and substation, recovery of demand from existing as well as permanent disconnected consumers, attending consumers complaints, regarding power supply and energy bills and supervising and monitoring of various work carried out by company. The three types of vehicle are used in City Circle Bhopal. Those are truck, pickup and Jeep/car. In this research study we have taken a case study of vehicle outsourced in City Circle Bhopal, and compared the cost of outsourced vehicles with the departmental cost (Cost to department if this activity would be performed in house) and found that departmental cost is very high as compared to outsourced cost and we come to the conclusion and found that the cost effectiveness can be achieved by outsourcing of vehicles.

Keywords: *Out source, vehicles, cost effectiveness, in house, service provider, departmental cost, out sourced cost.*

JEL Classification Codes- *B:21,D:24,E:24,G:3,I:28,P:3*

Introduction:

Outsourcing is a word derived from English words "out" and "source". It means in terms of business the use of other entities to perform specific tasks. Modern trends in economics and business management recommend that such "moving out" of certain jobs outside the company saves lots of money and time.

The concept of outsourcing gained popularity in the mid of 1990 due to rapid growth in the number of high-tech companies. The outsourcing has become a buzz since the last few years. Almost every country and almost every organization is outsourcing a part of its task or some task. The reasons that have been found for the increase in the trend of outsourcing for business process is that, it increases profit and lowers cost, and business focuses mostly on these aspects.

In simple words we can say that the transfer or delegation of some of the operations of the business to an external service provider is called outsourcing. Outsourcing can simply be defined as the continuous out tasking of a specific part of the business process. The practice of buying from another company a commodity or service that is not central to a company's competitive advantage is called outsourcing. The companies realize that non core activities can be affectively and economically performed by others and outsourcing helps the companies to focus their charges on the core activities and leave the non care activities to others who are specified in performing the non-core activities.

Technically speaking, outsourcing is not nearby the contract with a third party to perform a service for an organization, but it also involves transferring a significant amount of

management control and decision making to the external supplier. The process of outsourcing is very much formed like other business process and it always includes a considerable degree of two way information exchange and trust.

Justification of topic:

Madhya Pradesh Madhya Kshetra Vidyut Vitran Co. Ltd., (M.P.M.K.V.V.Co.Ltd) manages power distribution and retail supply in the central region which comprises of the commissionaires of Bhopal, Hoshangabad, Gwalior and Chambal. The company is facing a net loss since its inception in 2002. An attempt has been made through this study to determine the significance and meaning of outsourcing of different activities of M.P.M.K.V.V.Co.Ltd. and also how the net saving can be achieved through these outsourced activities is also studied. The increased savings by way of outsourcing non- core activities will increase the earning of the company which in turn will enable the company to pay interest and debt, without the financial help from outside agencies.

Review of literature:

Adam Smith in his book "The Wealth of Nations" which was published in the year 1776 has explained the meaning of the term "Outsourcing. According to Hannan and Freeman (1984) ongoing outsourcing practices are due to organizational inertia in following the leader without any efficiency concerns. Apart from various advantages of outsourcing like cost reduction, use of advance technology, capital investment etc, William Son (1985) in his study suggest that the outsourcing creates opportunities for firms to shift the burden of risk and uncertainty, associated with the business to someone else. Prahalad and Hamel (1990 P. 84) point out "outsourcing can provide a shortlist to a more competitive product but it typically contributes little to building the people embodied skills that are needed to sustain product leadership". Capital expenses incurred by the relationship should also be calculated by Burzawa 1994. The Major reason behind outsourcing is to save the cost Bergsman 1995, Saunders *et al.* (1997) in a study of outsourcing found that in many cases the major motives for outsourcing were technological and strategic and not cost reduction .Hall and Torrington (1998) found that training and management development recruitment and selection, outplacement ,health and safety, quality initiatives, job evaluation and reward strategies were the likely HR activities to be outsourced either because they were considered non-core or because of the organization lacked the expertise to handle them internally. There are, however, potential pit falls when outsourcing is done for strategic reasons. Organization may give away the crown jewels if they are not careful (Gillett 1999). The most often cited strategic reason for outsourcing is to allow organization to focus more on its core competencies Quinn and Hilmer 1999. Price Waterhouse Coopers (1999) in a study of outsourcing have found that outsourcing has moved from

searching for efficiencies and improvements in a single process or activity, to reconfiguring entire processes in order to obtain greater value across the organization. The ability of organizations to reduce costs is regarded as a pre-requisite for participation in many industries whereas innovation and responsiveness to customer needs are regarded as potential sources of competitive advantage. Before implementing different types of outsourcing like human resources, legal processes, marketing, Information Technology, call centre, manufacturing operation process etc. proper care must be taken or proper process must be followed for the successful outsourcing. If proper care is not taken in implementing outsourcing i.e. poor contract or poor selection of partner then according to Klopach 2000,outsourcing may result in loss of control or loss of core competence and it may also result in power shift to supplier (Kakabadse and kakabadse 2000. The supplier or outsourcer may also not give access to best talent and may lose customers, opportunities Robert V. 2001.

Quelin and Duhamel, (2003) in a study of outsourcing gives idea about whether outsourcing is appropriate for the organization and, if so, how the outsourcing process should be managed, Economist Paul Samuelson, a Nobel Prize winner, wrote in a 2004 paper that the economic effect of outsourcing is similar to allowing mass immigration of workers willing to compete for service jobs at extremely low wages. Scott Naxton in his article "Outsourcing is necessary to beat the competition" "published in the year 2006 stated "Considering the cut throat competition in almost all the businesses, it has now become necessary for established companies to outsource their time-consuming and labour intensive jobs to others so that they can concentrate more on areas of their core competencies. This way companies would concentrate more on marketing, expansion, takeovers and mergers."

Objectives of study:

The research study has the following objectives:

- I) To understand the concept of outsourcing
- II) To study the vehicle outsourcing activity being carried out at City Circle M.P.M.K.V.V.Co.Ltd Bhopal
- III) To examine that how far Outsourcing of vehicles helps to reduce the operating cost of the organization.
- IV) To analyse the net saving or cost effectiveness of Outsourcing of vehicles being carried out at City Circle M.P.M.K.V.V.Co.Ltd Bhopal
- V) To give the suggestions on the basis of findings of the study.

Hypothesis of the study:

The following hypothesis have been set up for testing of the significance of the study

H₀ = null hypothesis: - H₀₁ There is no significant difference between in house and outsourced Vehicles for revival and survival of the company

Research design:

Research designs are concerned with turning the research question into a testing project. The best design depends on the research questions. Every design has its positive and negative sides. The research design has been considered as a "blueprint" for research, dealing with at least four problems: what questions to study, what data are relevant, what data to collect, and how to analyze the results.

Researchers not only need to know how to develop certain indices or tests, how to calculate the mean, Growth rate, Standard Deviation, Coefficient of Variation and Student t test etc. Research tools have been deployed for justifying the result of the study, whether the result are significant or not.

The sources of primary data are through experiments, observations, interviews, questionnaire, scheduling etc. The sources of secondary data are annual reports, budgets and any other published documents.

In this study, secondary data collected by means of annual reports, budgets, executive business plan etc. has been considered. Apart from these data, the opinions, and observation of employees in various departments of City Circle M.P.M.K.V.V.Co.Ltd has also been considered. The data was qualitatively and quantitatively analyzed.

Limitations:

Every research has its own constraints, problems and limitation. In this context this research study is also having some limitations, which are given as follows.

- i) City Circle M.P.M.K.V.V.Co.Ltd Bhopal deals with number of activities in their business but in this study we have taken only one activity i.e. outsourcing of vehicles.
- ii) This research study is of micro nature and based on only one selected Circle i.e. City Circle M.P.M.K.V.V.Co.Ltd Bhopal
- iii) This research study is based on the 10 years data, which were related to the year 2000 to 2010.
- iv) For the analysis of outsourcing of vehicles under City Circle M.P.M.K.V.V.Co.Ltd Bhopal, on the basis of given data and computed data are grouped and sub grouped.
- v) The reliability of data depends on audit which is not sufficient.

Analysis of Case Study:

Cost Effectiveness of outsourcing vehicles activities, being carried out in City Circle M. P. M. K. V. V. Co. Ltd Bhopal.

In global economic market the business activities do not easily survive due to cut throat competition in the market. Nowadays every organization is facing problems of increasing cost and deterioration in the quality of output. Only those organization are able to run their business who are able to reduce their operating cost. All these problems are faced by private, semi govt. or Govt. organizations. M.P.M.K.V.V.Co.Ltd. is also one of the Govt. undertaking company, which is rendering the services and supplying power to its consumers. This organisation is running in loss since last so many years due to several reasons. Now these

challenges are faced by almost all govt deptt. In this light, I have taken a management technique i.e. Outsourcing and how it will be helpful as a cost-effective tool for survival of M.P.M.K.V.V.Co.Ltd. In this regard in this case study I have taken outsourcing of vehicles activities of City Circle M.P.M.K.V.V.Co.Ltd. Bhopal as my case study. In this case study how far outsource technique will be helpful in reducing the cost has been analyzed.

Outsourcing of Vehicles (Engaging private vehicles on higher charges) under City Circle M. P. M. K. V. V. Co. Ltd Bhopal.

The vehicle is needed for day to day executions of various jobs like operation and maintenance of electrical equipments, lines and substation, recovery of demand and arrears from existing as well as permanent disconnected consumers, attending consumer’s complaints regarding power supply and energy bills. Supervision and monitoring of various works carried out by company. At present in City Circle M.P.M.K.V.V.Co.Ltd Bhopal the total 69.nos of vehicle are being used of different types. The main types of Vehicle are

- 1) Truck (Pole carrier)
- 2) Pickup (mini truck)
- 3) Jeep / Car

Table No- 1: Average Annual Expenditure on Departmental Vehicle (Pick Up) Under City Circle Bhopal

Year	MP-04-K-2849 (Repair+ Fuel+ Salary) TOTAL	MP-09-KA 9257 (R&M+ Fuel+ Salary) TOTAL	Average Yearly Expenditure on Departmental Pick up	Road tax+ ins. +Int. (8%)	Total Avg. Expenditure per Vehicle
	(IN Rs)	(IN Rs)	(IN Rs)	(IN Rs)	(IN Rs)
2000-01	308657	699576	504117	45083	549200
2001-02	316357	682436	499397	48083	547480
2002-03	450454	524770	487612	51083	538695
2003-04	393942	626578	510260	54083	564343
2004-05	458919	742279	600599	57162	657761
2005-06	300570	770866	535718	65263	600981
2006-07	317322	783487	550405	68263	618668
2007-08	425675	979712	702694	69127	771821
2008-09	328475	1429193	878834	72127	950961
2009-10	442341	1279812	861077	75000	936077
2010-11	486575	1407793	947184	75127	1022311
TOTAL	3742712	8518709	6130711	680401	6797912

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M. P. M. K. V.V. Co. Ltd, Bhopal.

Table No. 1, shows an annual expenditure on departmental Vehicle (Pickup) under City Circle M.P.M.K.V.V.Co Ltd Bhopal. Total average annual expenditure on departmental Vehicle (Pick up) was calculated by taking actual expenditure on two pickups which were running under City Circle M. P. M. K. V. V. Co Ltd Bhopal. This expenditure has shown a mixed trend from 2000-01 to 2010-11. In the year 2000-01 the total average expenditure represented a figure of Rs. 5, 49,200 but it was reduced to Rs. 5, 38,695 in the year 2002-03. However in the year 2003-04 and 2004-05 this amount got increased to Rs. 5,64,343 and Rs. 6,57,761 respectively. The expenditure on these departmental Pickups

again reduced to Rs. 6,00,981 by 2005-06. From 2006-07 to 2008-09 the total average expenditure had shown a huge increase from Rs. 6,18,668 to Rs. 9,50,961 . This increase was only because of increase in salary of driver as the vehicle no MP 09 KA 9257 was being utilised in two shifts, this requires additional driver However in the year 2009-10, this amount got reduced to Rs. 936077 and in last year this amount was Rs. 1022311. The total average expenditure on pickup type vehicle in Bhopal City circle comes to Rs 6797912 for 10 years. This shows that per vehicle (pickup) annual expenditure in Bhopal City circle comes to Rs 679791.

Table No- 2: Average Annual Expenditure On Outsourced Vehicle Under City Circle Bhopal

Running Rate Upto 1250 Km Per Month For Pickup					
Year	Upto 1250 Km Per Month	Extra Km Allowed After 1250 Km	Rate Pr Extra Km	Total Expenses Per Month	Total Expenses Per Year Per Vehicle
	(IN Rs)	KM	(IN Rs)	(IN Rs)	(IN Rs)
2000-2001	13400	750	4.25	16588	160800
2001-2002	13400	750	4.25	16588	160800
2002-2003	13400	750	4.25	16588	160800
2003-2004	16230	750	5.35	20243	210015
2004-2005	16230	750	5.35	20243	242910
2005-2006	16230	750	5.35	20243	242910
2006-2007	16230	750	5.35	20243	242910
2007-2008	19400	750	6.40	24200	290400
2008-2009	19400	750	6.40	24200	290400
2009-2010	19400	750	6.40	24200	290400
2010-2011	26000	750	6.25	30688	368250
Total	136520	6000	44.85	170158	1970745

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M.P. M.K. V.V. Co. Ltd, Bhopal.

Table No. 2, reveals the average annual expenditure on outsourced vehicle (Pickup) under City Circle M.P.M.K.V.V.Co Ltd Bhopal. The Average Annual Expenditure on outsourced Vehicle (Pick up) under City Circle M.P.M.K.V.V.Co Ltd Bhopal had shown a stable trend from 2000-01 to 2002-03 as the rate of outsourcing was fixed at Rs. 13,400/ pm with a total expenditure of Rs.1,60,800 per annum. This amount was increased to Rs.2,10,015 in the year 2003-04 and again in the next three years i.e. 2004-05 to 2006-07 the amount got increased to Rs. 2,42,910 and remained same for these three years. In the last years i.e. from 2007-08 to 2009-10 these expenses again increased to Rs. 2,90,400 for three years. In last year 2010-2011 the expenditure was increased to Rs.3, 68, 250. The total expenditure has represented a figure of Rs.19,70,745 in 10 years. This shows that on outsourced vehicle (Pickup) annual expenditure in Bhopal City circle comes to Rs 1970745/-.

Table No- 3: Average Annual Expenditure on Outsourced and Departmental Vehicle (Pickup) Under City Circle Bhopal

Type of Vehicle : Pick Up						
Year	Actual Cost of Departmental Vehicle Per Year	Cost of Outsourced Vehicle Per Year	No of Vehicle Engaged In City Circle	Actual Cost of Engaged Vehicle If Run Departmentally Per Year	Cost of Engaged Vehicle on Outsourced Per Year	Cost Effectiveness (Net Saving) Per Year
	(In Rs)	(In Rs)	(In Nos)	(In Rs)	(In Rs)	(In Rs)
2000-01	549200	160800	3	1647599	482400	1165199
2001-02	547480	160800	3	1642439	482400	1160039
2002-03	538695	160800	4	2154780	643200	1511580
2003-04	564343	210015	6	3386058	1260090	2125968
2004-05	657761	242910	8	5262088	1943280	3318808
2005-06	600981	242910	8	4807848	1943280	2864568
2006-07	618668	242910	10	6186675	2429100	3757575
2007-08	771821	290400	12	9261846	3484800	5777046
2008-09	950961	290400	12	11411532	3484800	7926732
2009-10	936077	290400	12	11232918	3484800	7748118
2010-11	1022311	368250	17	17379290	6260250	11119040
Total Saving			95	74373072	25898400	48474672

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M. P. M. K. V.V. Co. Ltd, Bhopal.

Table 3 shows cost of vehicle (Pickup) run departmentally and the cost of outsourced vehicle (Pickup)for the year 2000-01 to 2010-11. In case of departmentally run vehicle (Pickup) the actual cost has been showing an increasing trend. It was Rs. 1647599 in the year 2000-01, Rs 1642439 in the year 2001-02. The cost was regularly increased and it was RS.5262088 in the year 2004-05. However, it reduced to 4807848 by 2005-06 but it kept on increasing in the rest of all years and was Rs. 17379290 In the year 2010-2011. The outsourced vehicle (Pickup) cost has also shown an increasing trend from 2000-01 to 2010-11. This cost was Rs.482400 in the initial two years and it reached to Rs.1943280 by 2004-05. By 2006-07 this cost again increased to Rs. 2429100 & it reached upto Rs. 3484800 by 2007-08. It remained the same in the next two years and in the Year 2010-11 represented an increased cost upto Rs. 6260250. The cost effectiveness was also calculated in this table. In the year 2000-01 the net saving has represented a figure of Rs. 1165199 and it kept on increasing up to Rs. 3318808 by the year 2004-05. The total cost effectiveness between the departmental Vehicle (Pick up) and the outsourced vehicle (Pick up) has been representing a figure of Rs. 48474672.

Table No 4: Average Annual Expenditure on Departmental Vehicle (Jeep) Under City Circle Bhopal

VEHICLE TYPE : JEEP					
Year	(R&M + Fuel+ Sal.) TOTAL	Road Tax	Insurance	Interest on Cost of Vehicle (8%)	Total Expenditure Per Vehicle
	(IN Rs)	(IN Rs)	(IN Rs)	(IN Rs)	(IN Rs)
2000-01	692400	13200	13200	32000	750800
2001-02	682436	13200	13200	33920	742756
2002-03	524770	13200	13200	35955	587125
2003-04	626578	13200	13200	38113	691091
2004-05	742279	13200	13200	40399	809078
2005-06	770866	13200	13200	42823	840089
2006-07	783487	13200	13200	45393	855280
2007-08	979712	13200	13200	48116	1054228
2008-09	1429193	13200	13200	51003	1506596
2009-10	1279812	13200	13200	54063	1360275
2010-11	1407793	13200	13200	57307	1491500
TOTAL	8511533	132000	132000	421785	9197318

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M. P. M. K. V.V. Co. Ltd, Bhopal.

Table 4 shows the total annual average expenditure of departmental vehicle (Jeep) under City Circle M.P.M.K.V.V. Co. Ltd Bhopal. The table No. 4 shows that the total expenditure on departmental vehicle (Jeep) under City Circle M.P.M.K.V.V.Co Ltd Bhopal had initially shown a mixed trend. The expenditure in the year 2000-01 amounted to Rs750800 and Rs.742756 & Rs 587125 in the year 2001-02 & 2002-03 respectively. This variation in expenditure was only because of the salary of driver attached to the vehicle taken under study of Bhopal City circle. However from 2003-04 to 2008-09 this expenditure kept on increasing to Rs. 691091 to Rs. 1506596. And in the last two years (2009-10) & 2010-11 this expenditure reduced to Rs. 1360275 & Rs 1491500 only due to difference in salary. The total expenditure represented a figure of Rs.9197318 in case of departmental vehicle (Jeep).

Table No- 5: Average Annual Expenditure on Outsourced Vehicle Jeep under City Circle Bhopal

Year	Running Rate Upto 2000 Km For Jeep, Per Month					No. Of Jeep
	Jeep 2000 Km Per Month (Two Driver)	Extra Km Allowed Above 2000 Km	Rate Per Extra Km	Total Expenses Per Month	Total Expenses Per Year	
	(IN Rs)	Km	(IN Rs)	(IN Rs)	(IN Rs)	
2000-2001	11400	500	3.55	13175	158100	13
2001-2002	11400	500	3.55	13175	158100	13
2002-2003	11400	500	3.55	13175	166050	14
2003-2004	13700	500	4.25	15825	189900	20
2004-2005	13700	500	4.25	15825	189900	22
2005-2006	13700	500	4.25	15825	206540	24
2006-2007	17300	500	5.37	19985	239820	33
2007-2008	17300	500	5.37	19985	239820	36
2008-2009	17300	500	5.37	19985	239820	31
2009-2010	17300	500	5.37	19985	239820	33
2010-2011	22500	500	5.5	25250	303000	41
Total					1711670	

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M.P. M.K. V.V. Co. Ltd, Bhopal.

Table 5 shows the total average annual expenditure of outsourced vehicle (Jeep) under City Circle M.P.M.K.V.V.Co Ltd Bhopal. This table shows that the total expenditure on outsourced Vehicle (Jeep) under City Circle M.P.M.K.V.V.Co Ltd Bhopal have been showing an increasing trend from the year 2001-02 to 2010-11. It started with an expenditure of Rs. 158100 which remained the same till the rate of monthly hire charges were fixed at Rs 11400/ pm up to the year 2003. This amount was increased to Rs. 166050 for the year 2002-03 & in the year 2003-04 this expenditure was increased to Rs. 189900. From 2005-06 to 2010-11 the expenditure has shown a continuous increasing trend due to increase in hire charges. The total expenditure represented a figure of Rs. 1711670 in case of an outsourced vehicle (Jeep) for the ten years in City Circle M.P.M.K.V.V.Co Ltd Bhopal.

Table No-6: Average Annual Expenditure on Outsourced & Departmental Vehicle under City Circle Bhopal

Year	Type Of Vehicle : Jeep		
	Actual Cost If Engaged Vehicle Run Departmentaly Per Year	Cost of Outsource Vehicles Per Year	Cost Eeffectiveness (Net Saving) Per Year
	(In Rs)	(In Rs)	(In Rs)
2000-2001	9760400	2055300	7705100
2001-2002	9655828	2055300	7600528
2002-2003	8219753	2324700	5895053
2003-2004	13821810	3798000	10023810
2004-2005	17799722	4177800	13621922
2005-2006	20162141	4956960	15205181
2006-2007	28224227	7914060	20310167
2007-2008	37952214	8633520	29318694
2008-2009	46704480	7434420	39270060
2009-2010	44889086	7914060	36975026
2010-2011	61151513	12423000	48728513
	298341175	63687120	234654055

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M. P. M. K. V.V. Co. Ltd, Bhopal.

Table No. 6 shows that The Actual Cost of Outsourced Vehicle (Jeep) had shown an increasing trend from 2000-01 to 2007-08. However due to reduction in the no of outsourced vehicle in the year 2008-09 and 2009-2010 cost of outsourcing reduced to Rs. 7434420 & Rs. 7914060 and in the last year 2010-11 due to increase in no of outsourced vehicles it was increased to Rs12423000.The cost effectiveness of these vehicles arrived from departmental cost minus outsourced cost i.e. 7.70 Lacs, 7.6 Lacs, 5.89 Lacs, 10.02 Lacs, 13.62 Lacs, 15.20 Lacs,20.31 Lacs, 29.31 Lacs, 39.27 Lacs, 36.97 Lacs and 48.72 Lacs which were in the year of 2000-01, 02, 03, 04, 05, 06, 07, 08, 09, 10 and 2010-11 respectively.

Table No: 7 Average Annual Expenditure on Outsourced & Departmental Vehicle under City Circle Bhopal

Year	Total Departmental Cost Of Vehicles Pickup+Jeep (In Lac Rs)	Total Outsourced Cost of Vehicles Pickup+Jeep (In Lacs Rs)	Cost Effectiveness (Net Saving) Per Year From Vehicles (In Lac Rs)
2000-01	114.08	25.38	88.70
2001-02	112.98	25.38	87.61
2002-03	103.75	29.68	74.07
2003-04	172.08	50.58	121.50
2004-05	230.62	61.21	169.41
2005-06	249.70	69.00	180.70
2006-07	344.11	103.43	240.68
2007-08	472.14	121.18	350.96
2008-09	581.16	109.19	471.97
2009-10	561.22	113.99	447.23
2010-2011	785.31	146.54	638.77
Total	2941.83	709.02	2232.81

Source: Data collected from General Section of office of Superintending Engineer, City Circle, M. P. M. K. V. V. Co. Ltd Bhopal.

Table No. 7 reflects the average annual expenditure on outsourced and departmental vehicles of both type i.e. pickup and jeep under City Circle M.P. M.K. V.V. Co Ltd Bhopal. Firstly this table represents the actual cost of departmental total vehicles (Pick up & Jeep) per year and secondly this table also represents the actual cost of outsourced total vehicles (Pick up & Jeep) per year.

The actual cost of departmentally run vehicles (Pick up & Jeep) has been representing an increasing trend. It was Rs 114.08 Lacs in the year 2000-01 & then it was reduced for two years and then kept on increasing till 2006-07. The actual cost was Rs. 112.98 Lacs, Rs.103.75 Lacs, Rs. 172.08 Lacs, Rs.230.62 Lacs, Rs.249.70 Lacs, Rs.344. 11 Lacs respectively from the year 2001-02 to 2006-07 and from 2007-08 it increases for four years as Rs.472.14 Lacs, Rs.581.16 Lacs, Rs.561.22 Lacs, and Rs 785.31. However there was a slight decrease in the year 2009-10 as compared to the previous years.

The Actual Cost of Outsourced total Vehicles (Pick up & Jeep) has represents an increasing trend from 2000-01 to 2007-08. The total expenditure represented the figure of Rs. 25.38 Lacs, Rs. 25.38 Lacs, Rs. 29.68 Lacs, Rs. 50.58 Lacs, Rs. 61.21 Lacs, Rs.69.00 Lacs, Rs. 103.43 Lacs & Rs. 121.18 Lacs respectively in the above mentioned years. There was a huge decrease in the expenditure in the year 2008-09 as Rs.109.19 Lacs which was due to decrease in the number of outsourced vehicle. The last year had shown an expenditure of Rs.146.54 Lacs.

The last column represents Cost Effectiveness (Net Saving per year) this is the difference between the Actual Cost of Departmental total vehicles (pickup and jeep) per year and Actual Cost of outsourced total vehicles (pickup and jeep) per year. This table clearly shows that there is a huge difference between the cost of departmentally run

pickup and jeeps and in the cost of pickup and jeep run on outsourced, have taken in this study. Initially the cost effectiveness of the above two parameter represented a slight decrease in the cost effectiveness. It was Rs 88.70 Lacs in the year 2000-01 and it was reduced to Rs 87.61 in the year 2001-02 and it was again reduced to Rs 74.06 Lacs in the year 2002-03 and from 2003-04 to 2008-09 the cost effectiveness kept on increasing from Rs. 121.49 Lacs to 471.97 Lacs. In the year 2009-10 it decreases to Rs 447.23 Lacs and in the last year 2010-11 the cost effectiveness again increased to Rs. 638.77 Lacs.

The Various statistical tools such as Mean, standard deviation, coefficient of variation, growth & average growth have applied so that the calculated information is in accordance with predefined standard of accuracy. The result of these tools were- The Mean of the cost effectiveness between the actual cost of departmental total vehicles (Jeep & Pickup) and outsourced actual cost of total vehicle (Jeep & Pickup) was found Rs. 261.05 and its standard deviation was Rs 180.76, the coefficient of variation shows a value of 69.24% and its growth rate reflects 620.12% and the average growth shows the value of 56.37%.

Testing of Hypothesis:

In this study I have taken null Hypothesis which is testing the significance of the study.

H₀: There is no significance difference between in house and outsourced vehicle activity for revival and survival of the company.

This hypothesis have been analysed through taking the case study of vehicle outsourced in City Circle M. P. M. K. V.V. Co. Ltd Bhopal.

Outsourcing of Vehicles (Engaging private vehicles on monthly hire charges) of City Circle M.P. M.K. V.V. Co. Ltd Bhopal. The research tool have applied for analysis the significance value of the hypothesis thus; I have taken research tool i.e. Student t-test at the level of 5%.

Case study:

Outsourcing of vehicles (Engaging Private Vehicles on monthly hire charges) of City Circle M. P. M. K. V.V. Co. Ltd Bhopal.

$$t = 3.52 \quad t_{0.05} = 2.09$$

Since calculated value of $t = 3.52$ which is higher than the critical value of $t_{0.05}$ which was 2.09, the null hypothesis stands rejected because calculated value is greater than table. Hence there is significance difference in this activity for departmental cost and outsourced cost. In house cost is higher than the outsourced cost, thus its cleared that outsourced of this activity will be helpful for cost effectiveness and also better for revival and survival of vehicle activity of City Circle M.P. M.K. V.V. Co. Ltd Bhopal.

Findings and Suggestions:

After detailed analysis and discussion of this study, we found that, the vehicle outsourcing activity of city circle

M.P.M.K.V.V.Co. Ltd. Bhopal has enormous cost effectiveness i.e. the cost of running vehicle departmentally is very high as compared to the cost of outsourced vehicle in a study period for 2000-2001 to 2010 -11

In the beginning of the study period i.e. 2000-01 the net swing or cost effectiveness was Rs77.05 lacs which goes on increasing till 2010-2011 to the tune of Rs. 487-28 lacs and In the complete period of study 2000-01 to 2010-2011 ,the total saving through outsourcing comes to Rs. 2345.54 lacs. Thus, the M. P. M. K. V.V. Co. Ltd. has saved Rs 23.45 Cr by outsourcing of only one activity ie vehicle. The various suggestions are given as below

- i. As the engagement of vehicles through outsourced agency is a non-core to the M. P. M. K. V.V. Co. Ltd. and it is found to be very cost effective on outsourced, hence it should be continued on outsource.
- ii. The staff spared from this job may be assigned some revenue earning jobs like cross checking of meter reading, Arrear Recovery, organizing camps to release new connections etc.
- iii. The numbers of consumers are increasing every year in city circle Bhopal which requires more number of vehicles to be engaged or outsourced to serve them better. Therefore it is beneficial to keep it on outsource.
- iv. The M.P.M.K.V.V. Co. Ltd. should also continue the practice of outsourcing of vehicle in future and extend it to all the jurisdiction of company.
- v. The heavy vehicles (Trucks) are at present running departmentally. These heavy vehicles may also be given on outsource so that the net saving may be increased further.
- vi. The company should increase outsourcing of other activities also as it is very beneficial to the company.
- vii. The company M.P.M.K.V.V. Co. Ltd. may extend outsourcing to other circles in its jurisdiction to reap the maximum benefits from it. Employees who will be freed through outsourced activities can be assigned other departmental work like revenue recovery work.
- viii. Keeping in view the net saving of vehicle outsourcing it is suggested that the company should outsourced other non core activities like security service, receipt and dispatch service of each office, maintenance of transformer and lines, replacement of faulty equipments with new one, payrolls etc.

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