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## Incentives for Strengthening the Adoption of Modern Costing Techniques

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### Abstract

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*The paper studied the incentives use by the sample companies for the satisfaction of their employees. Employees are very important for the well implementation of both modern costing techniques namely target and kaizen costing. For full involvement of their members automobile manufacturing companies use different incentives for their employees. For commitment of members it is necessary that automobile companies should focus their inventive plans and systems. The study concludes that the full commitment from the side of members requires some stimulus and automobile companies should use different incentives to encourage their members.*

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### Introduction

In current competitive business environment target and kaizen costing, are accepted as modern cost management tools for reducing the manufacturing cost of a product. These methods have been used by many leading firms. Target costing was invented by Toyota in 1965 (Tanaka, 1993). It was pioneered by Japanese company Toyota to achieve high quality and desirable features at a competitive price. The target costing (genka kikaku in Japanese) seeks to bridge the gap between the cost determined through market research and the cost at which the firm can supply its product. Target costing was initially a market oriented cost calculation approach consisting on determining the target cost of a product at the product design stage before the beginning of manufacturing stage by subtracting from the target selling price (taken from the market) the target profit fixed by the company in order to assure the expected level of profitability during the whole product life cycle. In target costing a

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desired profit margin is subtracted from the estimated selling price to determine the target cost for the new product and its formula is:

Target Cost = Estimated Selling Price — Desired Profit Margin

Target costing is a process for ensuring that a product launched with specified functionality, quality and sales price can be produced at a life cycle cost that generates the desired level of profitability (Cooper & Slagmulder, 1997).

Kaizen costing was originated as cost management practice in Japanese companies after World War II. Kaizen costing is known “Genkakaizen” in Japanese companies. Kaizen costing method is used in manufacturing stage of the existing products as cost reduction process. Kaizen costing focuses on continuous improvement in all processes, customers’ satisfaction and on involvement of all employees of company. Kaizen costing is derived by Japanese automobile companies. In 1960 Toyota established the cost management technique namely kaizen costing (Toyota Motor Corporation, 1987). Yasuhiro & John (1993) commented that kaizen costing works on the establishment of a cost reduction target amount through continuous improvement or kaizen activities in operations. Guilding et al. (2000) stated that kaizen costing is a strategic management accounting practice which is forward-looking and closely aligned to a quest for competitive advantage. According to Yasuhiro & John (1993) kaizen costing activities maintain the current level of the existing production costs and further reduce costs to an expected level based on the plans of firm. A major feature of kaizen costing is that shop floor workers are given the responsibility to decrease cost and to improve processes. The basis of many of the cost improvement ideas is that the shop floor workers closest to the product and production process.

The cross-functional team structure is the critic component for the implementation of target costing and kaizen costing. Target costing and kaizen costing successful implementation depend on the employees of different departments of the company. Literature said that motivational consideration is very important for well execution of these techniques in company. Target cost and kaizen cost targets can be met by the company through the assignment and decomposition of total target costs and kaizen costs among different departments. The amount of kaizen cost targets must not be affected by the organizational power instead of this self control autonomous involvement should be prevailed. Targets should be determined through consultation between managers and other members. For target costing and kaizen costing proper application, each employee must adjust and work for cost

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reduction optimistically thus, company needs to motivate employees by different incentives such as information provide to employees, cooperation etc. Target costing and kaizen costing require people involvement at all levels members of the company for successful implementation of Japanese total cost management system.

### **Review of literature**

Target costing is adopted as a philosophy that has gained recognition due to the need to produce a product at a pre decided cost level. This method is used with the help of team not to control employees and teams. In target costing process top management and all remaining employees are important (Ansari & Bell, 1997). Typically there are four main teams in a manufacturing process of product: the business planning team, the product team, the design team and the product manufacturing team (Ansari & Bell, 1997). The effectiveness of this method usually increases with the involvement of personnel. The members of team should be trained to apply the target costing process. This system motivates employees think and act strategically. Multidisciplinary teams are crucial (Cooper & Slagmulder, 1997). These teams play very important role in achieving cost/price, quality and functionality objectives. Without these teams shop floor workers commit no cost reduction. Target costing process focuses on designing the new products and cross functional teams to assess the possible design alternatives. Commitment of workers towards task requires trust and respect among team members. Support of all employees is vital for target costing. Kato et al. (1995) supported cross functional teams and they use the term “people involvement”. An integrated and skilled product development team having members from different departments can satisfy the requirements of market (Butscher & Laker, 2000).

Kato et al. (1995) presented some common importance of cross functional teams for target costing. Cross functional team members are from different departments and all worked together for smooth functioning of target costing. Active support of upper level management, empowered cross functional teams and internal reward structure are important elements for the success of target costing. Cross functional cooperation is also important for strategy formulation process. Team members often negotiate to set the level of target costs but there negotiation is not seen as bargaining. There negotiation is the rationality of the team members and it motivates employees in positive way with their commitment to achieve assigned targets. Cross functional team is answerable for the entire life cost management of product.

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The target costing method decides cost objectives and goals for teams and it is the base of their performance measurement. Target costing can achieve its goal with the participation of all departments and departments help in different ways. Target costing process requires the involvement of different departments' employees of the organization. Different departments perform in different ways in target costing process for the attainment of target costs.

According to Kaplan & Cooper (1998) kaizen costing is an approach to develop a costing system to carry continuous improvement activities in a company. Kaizen costing implementation needs the culture in which work groups can always try to meet their cost targets and be able to identify the progress during the period. Kaizen targets or cost reduction targets must be both attainable and satisfactory to meet generally company objectives because if the cost target is too high workers cannot attain these and it will frustrate them and if cost target is too low they will not take interest in these targets. It is assumed that work groups are able to identify the place of waste existed in a process. Literature stated that the implementation of the kaizen costing method involves the improvement of the production process with staff or shop floor workers formation, motivation and encouragement, with the identification of cost reduction possibilities. The main criticism of this method is stress on the staff. Literature said that this continuous cost reduction method is stressful by its nature. This philosophy is so deep-rooted that the team leaders and foremen in manufacturing companies are required to meet regularly to discuss their progress for reducing costs.

Kaplan & Cooper (1998) mentioned that kaizen philosophy favours to delegate more authority and responsibility to the specific teams in order to provide them freedom in improving their parts in the process. In this system every activity is supported by a work team that shares the result. Kaizen costing is carried out by the team members and it is mainly related to operational measures. The team members are asked to produce weekly product costs which could be decreased over time against cost target. Cheser & Tanner (1993) indicated the use of kaizen costing within a given framework and with the involvement of groups. They stated that after the estimation of investment working groups which are working with that issue are informed about these estimates to make them understand about the earlier stage of the challenges and this also provides a clarification about the problem issues and cost rationalization to the working groups.

Monden & Hamada (1991) described the system of total cost management used by Japanese companies. Authors stated that this system includes target costing and kaizen costing as two

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main pillars and the first pillar target costing is used to reduce the cost of new products in the design and development stage while kaizen costing is used by the Japanese companies for the cost reduction of existing products in the manufacturing stage and through these two methods Japanese companies control the overall cost of product during the whole life cycle of product.

### **Objective of the study**

The objective of the study is to evaluate the stimuli posses by the members in implementation of two modern costing techniques namely target costing and kaizen costing in the sample companies. To know what are incentives behind the silent acceptance of these techniques, from the side of employees working in sample companies.

**H<sub>0</sub>- There is no stimuli posed by the members in the implementation of target and kaizen costing techniques.**

### **Methodology**

In the present study data collected from sample companies from automobile industry is analysed to accomplish the objective of the study.

### **Research Population**

The research objective of the study is concern with the use of kaizen and target costing techniques in Indian automobile companies. The target population of this study identified in this concern is Indian automobile companies. This study concentrates only on this sector in order to avoid confusion arising from variations between different sectors. Automobile sector is suitable for this study because according to literature this sector have a higher proportion of firms who are most likely to use kaizen and target costing techniques.

### **Sample Selection**

The study has been conducted on automobile manufacturers in India. The modern costing techniques were originated in Japanese automobile companies which provide an ideal base for the present study on target and kaizen costing in Indian automobile companies. Cost management is a vital area in automobile manufacturing companies and these companies focus on the implementation of new costing techniques. One reason for choosing sample

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automobile companies is that they are the large-sized firms, having good image in their field and have larger resources available for investment in new techniques such as kaizen and target costing. The three rational criteria for sample selection were: Research objective, existing literature and data availability and accessibility

The sample of study should be representative of the population. In this view, purposive as well as convenience sampling have been applied to select the sample of the study, because it is believed that selected sample companies providing the typical information for the accomplishment of the study. Therefore, three large companies were selected which were considered relevant to the purpose of the study.

### Sample of the Study

A sample of three automobile companies was taken for the study. For the study following companies have been taken as sample companies-

1. Maruti Suzuki India Limited
2. Hero Motocorp Limited
3. Honda Motorcycle and Scooter India Private Limited

### Sample Size

The sample size from each of the sample company in this study after response of respondents has been used as under:

		Maruti	Hero Motocorp	Honda
I]	Non Managers	87	75	48
II]	Managers	39	34	20

In the above stated way total sample size of 303 has been used (and data is collected) for the attainment of the objectives of the study.

### Data collection

For the completion of the study both primary as well as secondary data have been used. Data from primary sources have been attained for this study through various means such as direct

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visits in companies, structured questionnaires which were distributed among respondents, also e-mail of questionnaires, discussions with the officials of sample companies, feedback from managers at different level, people at operational level, through telephone calls, face to face conversations and interaction with employees of companies. Data from secondary sources have been obtained from financial statements of companies, annual reports of companies, research and development statistics of the sample companies, other documents underlying cost management, websites of companies (Maruti Suzuki, Hero Motocorp and Honda Motorcycle & Scooter), textbooks, web pages (internet search), trade and scholarly Journals (literature or previous studies) related to cost management and control in manufacturing companies.

### **Research Instrument**

In this research, the most applicable method of primary data collection is deemed to be questionnaires. The Two questionnaires had been developed containing various questions in this study, one for managers and other for non-managers. The survey instrument sought objective information about the incentives use by the sample companies, incentives change by companies and satisfaction of employees with the incentives provide by the companies.

### **Statistical techniques**

Analysed data is presented in form of frequency tables and in percentages. The descriptive analysis of the data is used to provide a summary of responses of the respondents, which are: frequency distributions and percentage. Descriptive statistics have been used to draw percentages of frequencies. Chi-square test has been used mainly for data analyses. It is used to find out any significant difference between observed and expected responses.

### **Data Analysis**

The analyses regarding this objective have been done on the basis of questions in the questionnaires related with the objective and it is depicted as under:

**Table1: Incentives Provided by the Companies**

	MARUTI			HERO			HMSI		
	Freq- uency	Per cent	Total	Freq- uency	Per cent	Total	Freq- uency	Per cent	Total
Financial incentives	118	93.7	126	109	100	109	68	100	68
Good working conditions	108	85.7	126	109	100	109	61	89.7	68
Good cooperation	94	74.6	126	108	99	109	49	72	68
Seniority base wage system	79	62.7	126	107	98	109	59	86.8	68
Recognition	106	84.1	126	106	97.2	109	54	79.4	68
Nonfinancial incentives	86	68.3	126	106	97.2	109	18	26.5	68
Suggestion scheme	114	90.5	126	107	98	109	58	85.3	68
Gain / Profit sharing	72	57.1	126	3	2.8	109	28	41.2	68
Life time employment facility	75	59.5	126	4	3.7	109	38	55.9	68
Welfare systems	111	88.1	126	109	100	109	66	97	68
Training	104	82.5	126	104	95.4	109	58	85.3	68
Awards	87	69	126	103	94.5	109	37	54.4	68
Bonus	86	68.2	126	102	93.6	109	53	77.9	68
Prizes	107	84.9	126	106	97.2	109	65	95.6	68

The above table 1 has elucidated the incentives provide by the sample companies to their employees. The table depicts the frequency of responses and their percentages on the different types of incentives provide by the sample companies. The table shows 14 incentives and there is difference in the percentages of the frequency of responses among three sample

companies. The table shows that Hero Company uses all incentives except gain/profit sharing and life time employment facility incentives because in this company the percentage of responses on these two incentives is very low. The table shows that Maruti Company and HMSI use all incentives but there is a variation in the percentages of the responses on the incentives of these companies. From the table it is observed that two incentives gain/profit sharing and life time employment facility have low percentages in all companies but in HMSI with these two incentives awards and non financial incentives have also low percentages. The researcher notes that the difference in percentages may be due to the awareness of employees. It is clear from the table that all companies provide different incentives to stimulate their employees but may be different incentives for different levels of employees.

**Table 2: Incentives Change by Company****Crosstab**

			Name of Company			Total	
			MARUTI	HERO	HMSI		
Incentives change by company	Strongly disagree	Count	1	1	1	3	
		Expected Count	1.2	1.1	.7	3.0	
	Disagree	Count	6	1	17	24	
		Expected Count	10.0	8.6	5.4	24.0	
	Neutral	Count	26	17	20	63	
		Expected Count	26.2	22.7	14.1	63.0	
	Agree	Count	77	89	18	184	
		Expected Count	76.5	66.2	41.3	184.0	
	Strongly agree	Count	16	1	12	29	
		Expected Count	12.1	10.4	6.5	29.0	
	Total		Count	126	109	68	303
			Expected Count	126.0	109.0	68.0	303.0

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	72.892(a)	8	.000
Likelihood Ratio	75.387	8	.000
Linear-by-Linear Association	12.319	1	.000
N of Valid Cases	303		

a 3 cells (20.0%) have expected count less than 5. The minimum expected count is .67.

In order to analysis the strategy of sample companies to change incentives; an empirical study has been carried out in this context. The above table 2 shows that expected and count figures indicate a considerable difference in company strategy to change incentives. It is observed that the calculated value of chi square at 8 df. @ 5% level of significant, indicate 72.892. Meaning thereby, that calculated value of chi square is higher than that of given value that is 15.51. Hence, the null hypothesis is rejected. Hence, it is quite obvious that the all three companies time to time change their strategies for incentives. It is clear from the observation that in total (213) employees has marked on 'strongly agree and agree'. It indicates a clear-cut picture that companies time to time change their strategy regarding incentives to employees. The table also presents that Maruti and Hero are more concern about the change in incentives than HMSI.

**Table 3: Satisfaction with the Incentives Provided****Crosstab**

			Name of Company			Total	
			MARUTI	HERO	HMSI		
Satisfaction with the incentives provided	Strongly disagree	Count	1	0	3	4	
		Expected Count	1.7	1.4	.9	4.0	
	Disagree	Count	11	0	8	19	
		Expected Count	7.9	6.8	4.3	19.0	
	Neutral	Count	31	17	17	65	
		Expected Count	27.0	23.4	14.6	65.0	
	Agree	Count	59	88	24	171	
		Expected Count	71.1	61.5	38.4	171.0	
	Strongly agree	Count	24	4	16	44	
		Expected Count	18.3	15.8	9.9	44.0	
	Total		Count	126	109	68	303
			Expected Count	126.0	109.0	68.0	303.0

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	53.942(a)	8	.000

Likelihood Ratio	62.354	8	.000
Linear-by-Linear Association	.466	1	.495
N of Valid Cases	303		

a 4 cells (26.7%) have expected count less than 5. The minimum expected count is .90.

The above table 3 has revealed the satisfaction level of employees regarding incentives provided by the sample companies, an empirical study has been carried out in this context. The expected and count figures indicate a considerable difference in the satisfaction level of employees toward incentives provided by companies. In this context, it is observed that the calculated value of chi square at 8 df. @ 5% level of significant, indicate 53.942. Meaning thereby, that calculated value of chi square is higher than that of given value that is 15.51. Hence, the null hypothesis is rejected. It is quite obvious that the employees are satisfied with the incentives provided by the companies. It is clear from the observation that in total (215) employees has marked on 'strongly agree and agree'. It indicates a clear-cut picture that employees of the all companies are satisfied with the incentives provided by the companies to motivate their employees. The table also shows that employees of Hero are more satisfied with the incentives provided by the company than Maruti and HMSI.

### Conclusion

In current market environment modern costing techniques are required in every manufacturing company and the requirement of proper cost management is more in automobile companies due to fast changing market and customers desires. For proper application and benefits of the use of modern costing techniques both target and kaizen costing, commitment and involvement of employees is necessary. Without the support and involvement of employees these techniques cannot give best results. If employees work well then they expect something from companies. After the analyses of statements in respect of the objective which is concerned with the stimuli poses by the members in implementation of kaizen and target costing techniques in sample companies it is clear that for the long period commitment of employees' automobile companies use different incentives and they time to time change their incentives. Companies try to satisfy their employees and for this they provide different facilities in terms of incentives to motivate their employees. However,

different companies use different incentives and their policies to change incentives are also different. Finally, it is found that employees accept change and work with new techniques when they are satisfied and for their satisfaction companies use different incentives to encourage them.

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