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## Marketing

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## Incentive Pay for Team Selling: A Model with Propositions

By Sungwook Min, Wen-yeh (Rene) Huang & Alan J. Dubinsky

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**Abstract-** Although teamwork is necessary and often regarded as a crucial determinant in winning sales and building long-term relationships, the issue of how to design incentive pay for team selling has remains mostly because of “moral hazard” in team. We build an analytical model integrating behavioral motivation theory— in particular, expectancy theory—into an economic hazard model framework and proffer propositions pertaining to incentive pay for team selling. The analytical model suggests that a firm can induce the best efforts in a selling team. This potential increases as interaction intensity, peer pressure, membership stability, team size, and team uncertainty rise. The results suggest that the optimal team incentive rate inducing the best efforts increases when interaction intensity, team uncertainty, and team size decrease.

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# Incentive Pay for Team Selling: A Model with Propositions

Sungwook Min <sup>α</sup>, Wen-yeh (Rene) Huang <sup>σ</sup> & Alan J. Dubinsky <sup>ρ</sup>

**Abstract-** Although teamwork is necessary and often regarded as a crucial determinant in winning sales and building long-term relationships, the issue of how to design incentive pay for team selling has remains mostly because of “moral hazard” in team. We build an analytical model integrating behavioral motivation theory— in particular, expectancy theory—into an economic hazard model framework and proffer propositions pertaining to incentive pay for team selling. The analytical model suggests that a firm can induce the best efforts in a selling team. This potential increases as interaction intensity, peer pressure, membership stability, team size, and team uncertainty rise. The results suggest that the optimal team incentive rate inducing the best efforts increases when interaction intensity, team uncertainty, and team size decrease.

## 1. INTRODUCTION

Team selling has become a critical, if not a sine qua non, for an increasing number of companies (Jones et al., 2005; Segalla et al., 2006; Rapp et al., 2010). It entails relying on “several individuals in an organization to sell products and services to all relevant decision makers” in the buying organization (Hair et al., 2009, p. 166). A key rationale behind the use of sales teams is to create long-term relationships between the buying and selling firm that are mutually beneficial vis-à-vis personnel, products, and companies (Menguc and Barker, 2005).

Although team selling is considered to be “a determinant factor in winning sales and building long-term partnerships” (Segalla et al. 2006, p. 419) and an effective promotional tool (Hair et al., 2009), sales force managers are likely to encounter difficulties when designing and implementing appropriate *incentive pay* systems for their sales teams. Fein (2010) has suggested that “[t]he most important thing about sales compensation planning is to make sure that you are motivating the salespeople to produce what the company needs.” Doing so requires the sagacity of Solomon or the skills of Merlin the Magician!

Sales managers establish incentive-based compensation systems to enhance selling team performance. Even the best of intentions, however, could lead to incentive plans that negate their intended purposes. Indeed, some research has ascertained that an incorrect incentive system can lead members to exploit (or play with) the system (e.g., Courty and Marschke, 2004; Larkin, 2008) or allocate job tasks in a way that is not propitious for the firm (MacDonald and Marx, 2001). Part of the problem in deriving appropriate incentive compensation programs for selling teams is a function of the performance appraisal mechanisms used to assess them. Moncrief and Shipp (1997) averred that some of the issues revolve around difficulties in distinguishing between individual from group outcomes, customizing performance metrics vis-à-vis the type of team, and measuring various effort components from members of cross-functional teams. Given the putative relationship between team salesperson performance and incentive-based compensation, such conundrums are understandable. As Burke (2011) has argued:

The shift to a team focus poses some special challenges for a sales operation... [such as] how do you use rewards to encourage individual cooperation with a team approach? The answer depends on both the selling process and the behavior you are trying to instill. For instance, is the sale dependent on the coordinated interplay of several players? Or is it more a function of aggregating a number of individual “wins”?

The economics literature on “moral hazard” helps partly explain why the design of incentive pay for team selling can be problematic. Regarding moral hazard as “the problem of inducing agents to supply proper amounts of productive inputs when their actions cannot be observed and contracted for directly,” Holmstrom (1982, p. 324) propounded that there exists a free-rider problem with team work. Specifically, if one agent (such as a salesperson in a work group) shirks his or her duties, he or she still receives the full benefit for the diminished effort. The cost of the shirker’s reduced endeavors, however, is shared by all the other agents (such as the other selling team members). Interestingly, though, Rasmusen (1987) showed that when risk aversion is sufficiently large and the efforts of the agents are not observable, the first-best effort is achieved through punishment contracts, such as “scapegoat”

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and “massacre” contracts. In the scapegoat contract, an agent is chosen to be the “scapegoat” when output is low, and the other agents benefit at his/her expense. In the “massacre” contract, though, all of the agents are punished when output is low except for a randomly chosen agent who receives the entire output. Fabella (1988) relaxed the non-observability condition and found that “natural team sharing”—where the proportional share in total output equaled the proportional share of total input—can induce the first-best effort.

Although the moral hazard literature regarding teams recognizes problems in team compensation, it possesses limitations for constructing realistic, effective team compensation. First, most moral hazard models assume a “one-shot game” rather than a multi-period game. Yet, team selling most likely entails *multi-period* activities. Specifically, after each team transaction or reward period, members in the team are compensated; this process is repeated in typical cases of team selling (Moon and Armstrong, 1994). Second, Holmstrom’s (1982) non-cooperative (i.e., the shirker) assumption can be challenged. Literature from organizational behavior has proposed that group dynamics—based on group norms, value systems, or shared assumptions—may well attenuate the assumption. Moreover, sales force culture might lead to abjuring the presupposition (Jackson et al., 1994; Jackson and Tax, 1995; Segalla et al., 2006), as it conceivably could induce sales team members not to compromise their efforts (a la “one for all and all for one”). In fact, Karau and Williams’ (1993) meta-analysis found that individuals did not loaf when group cohesiveness was high. Furthermore, the use of punishment suggested by Rasmusen (1987) is unlikely to work in team selling compensation. After all, team spirit and cooperation could collapse when a firm emphasizes punishment (Ramaswami and Singh, 2003; Segalla et al., 2006). Also, a randomly chosen agent might conceivably perceive inequality from the punishment and thus have lower motivation (Adams, 1965).

Because of the preceding issues concerning sales team compensation, this paper develops an analytical model that assists sales managers in designing effective incentive pay systems for team selling. Prior work in marketing has found that the nature of reward structures can influence the satisfaction and performance of team members (Sarin and Mahajan, 2001). Jones et al. (2005) averred that one of the major trends in field selling is the increased importance of sales team structure. Brown et al. (2005) argued that this (among other professional selling dynamics) necessitates additional research on sales force compensation vis-à-vis the evolving sales force milieu. This paper partly seeks to answer that call.

The model incorporates behavioral motivation theory—in particular expectancy theory (Vroom 1964)—and economic moral hazard models. Although the

majority of sales force researchers rely on insights from expectancy theory to examine motivational aspects of sales force compensation (e.g., Apasu, 1987; Churchill and Pecotich, 1982), little research has (a) applied expectancy theory to the issues of motivating and compensating team members in team selling, or has (b) attempted to integrate expectancy theory into an economic hazard model frame.

Prior to propounding the model, the nature of team selling is described, followed by an explanation of aspects of sales team compensation and of the motivation mechanism of each member in a sales team. Model dimensions are then proposed as being key aspects for sales managers to consider when designing an incentive pay system for team selling, along with attendant research propositions. Implications for sales managers and future research conclude the paper.

## II. NATURE OF TEAM SELLING

Various researchers have used different terms (e.g., selling team, selling center, national account management) to describe a multi-person selling effort. Moon and Armstrong (1994) developed a conceptual framework of team selling. They viewed selling teams as a continuum between a “core selling team” and “selling center.” They defined a *core selling team* as a customer-focused group whose primary objective is to establish and maintain strong customer relationships. Its membership is stable, changing only as frequently as job assignments change. Moon and Armstrong (1994) proposed that the size of a core selling team would increase as the technical complexity of the seller’s products or services augments. Alternatively, a *selling center* is defined by a transaction-oriented group whose objective is successful completion of the specific sales opportunity that it has been established to pursue. It is tactical in nature, and its membership is fluid. Moon and Armstrong (1994) also promulgated that as transactions become more novel or important to buyers or sellers, the selling center will exhibit a greater degree of vertical and horizontal involvement and be more extensive and connected.

As Moon and Armstrong (1994) stated, a sales team can possess various structures based on its mission and opportunities. Thus, the variety of the team structure should be taken into account when a firm designs an incentive pay system for team-selling efforts (Beersma et al., 2003). Five key dimensions are considered in this paper to investigate the effect of team structure on team compensation. The five were selected for inclusion in this research based on the selling team/selling center seminal work of Moon and Armstrong (1994) and Moon and Gupta (1997). Moon and Armstrong (1994) and Moon and Gupta (1997) considered these five dimensions to be explicitly or implicitly critical aspects of selling team structure that

can have a marked impact on the members of the sales team, as well as the outcomes of the team. Given the nature of these team structure dimensions (per the subsequent discussion) and Moon and Armstrong (1994) and Moon and Gupta's (1997) insightful analyses, these five dimensions may well influence a sales team's incentive pay system.

*a) Intensity of Interaction among Team Members*

*Intensity (or degree) of interaction* among team members could affect the design of a sales team incentive pay system. Interaction among team selling members is a characteristic that is different from features of traditional individual selling. As team members interact, exchange of information can facilitate members' coordination of efforts and enhance their skill complementarities (Chan, Li, and Pierce, 2009). Indeed, they are likely to become cognizant of the various activities that are occurring among team members and the contribution each member is making to team output (Moon and Armstrong, 1994). This awareness seemingly should lead sales managers to develop a fair incentive system to motivate and reinforce team members.

*b) Peer Pressure*

*Peer pressure* on a salesperson within a sales team might well affect his/her performance. A positive relationship between peer pressure and an individual's effort contributed toward his/her assigned team tasks is presupposed in this paper. If a team has a high level of interaction, peer pressure may influence an individual salesperson's performance, as it is easier to observe co-workers' efforts. Indeed, peer pressure can be healthy in the sense that it could augment both the team outcome and each member's utility (e.g., Hollander, 1990; Kandel and Lazear, 1992; Bernheim, 1994)—thus influencing the team incentive pay plan.

*c) Membership Stability*

*Membership stability* within the selling team may affect the team's incentive pay system. If a selling team is organized for just one specific transaction (i.e., there is little likelihood that team members will work together after the conclusion of that transaction), team members' efforts will likely be different from those of permanent team members (Moon and Armstrong, 1994). In the former condition, team members essentially work as "freelancers" or "utility players," seeking to conclude their work and move on to their next assignment. The time spent with the team does not necessarily foster bonding among members. Thus, such individuals seemingly have little to lose by focusing on their own results irrespective of the team's outcomes. In the latter situation, however, team membership tends to be enduring, thus leading to a need to maintain solid working relationships among team members. As such, the team is likely focus on overall team outcomes rather than pursuing each member's own personal agenda.

Accordingly, team permanence could affect the team incentive compensation plan.

*d) Uncertainty about Co-Workers' Efforts*

*Uncertainty regarding co-workers' effort levels* could be considered in sales team incentive pay systems. If a salesperson feels uncertain about co-workers' effort levels, such in certitude is likely to influence his/her contribution to the team ('a la "free-riding"). Partnering with team members could help reduce free-riding of team members (Kandel and Lazear, 1992). Indeed, Itoh (1991) illustrated how a compensation structure may induce team members to engage in helping behaviors. Furthermore, he demonstrated (Itoh, 1993) that a team-based incentive system can conduce to cooperation among team members. Subsequent discussion will reveal why uncertainty among team members might affect the team incentive pay structure.

*e) Size of Team*

*Size of the selling team* is included in the model. As the size of the selling team increases, there is likely to be a higher chance of sales team member free-riding. After all, team members might not be intimately familiar with each member's efforts owing to the large size of the team. As such, members may well feel uncertain about the sales team effort-sales response function. Moon and Gupta (1997) averred that team size is positively associated with team conflict. Thus, team size likely affects sales team incentive pay structure.

### III. COMPENSATION ASPECTS OF TEAM SELLING

Total compensation for each team member is modeled in this paper as in equation (1), where  $R_i$  is the total monetary reward for a team member  $i$ ,  $F_i$  is the fixed salary,  $B$  is the team incentive rate for the team selling outcome  $X$  (e.g., unit sales, gross sales, gross margin), and  $p_i$  is  $i$ 's contribution to the outcome:

$$R_i = F_i + B \times X \times p_i \quad (1)$$

where,  $\sum_{i=1}^n p_i = 1$ . For instance, a technician in a team whose salary is \$100,000 will be compensated \$101,000<sup>1</sup> if his/her team achieves \$50,000 gross margin, the incentive pay rate for the team is 10%, and his/her contribution to the team selling is assessed as 20%.

The model captures two major problems firms might face when they design a team compensation plan: (a) how much should incentive pay be based on, and (b) how the proportional contribution of individual effort to the team outcome should be decided. Extant research does not provide an appropriate rule to resolve the first issue. Seemingly, practitioners follow company

<sup>1</sup> \$101,000 = \$100,000 + .1\*\$50,000\*.2

and/or industry conventions of the labor market (Albers, 2002). The second problem ideally pertains to the “golden rule” of team compensation—“as much as is possible, tie the reward to the salesperson’s actual contribution.” In practice, however, finding each individual’s precise contribution is difficult owing to information asymmetry (Menguc and Barker, 2005). Some firms might find an approximation for  $p_i$  by directly monitoring individual effort, examining peer evaluations, or perusing merit evaluations. Other firms, though, may use the same  $p_i$  for all team members (if it is impossible to measure the exact contribution of each team member).

#### IV. UNDERSTANDING SALES FORCE MOTIVATION IN TEAM SELLING

Members in a selling team interact with each other to achieve enhanced levels of performance (Hair et al., 2009). Through repeated experience in team selling, team members are likely to ascertain the relationship between their own efforts and sales outcomes (e.g., the effort-sales response function). Calculating the sales response from their efforts and rewards for their sales outcome, team members pursue their own effort level. Expectancy theory (Locke, 1975; Vroom, 1964) explains this mechanism in terms of motivational force. Expectancy theory asserts that effort level<sup>2</sup> depends on an individual’s beliefs pertaining to three elements: “expectancy,” “instrumentally,” and “valence.”

*Expectancy.* Expectancy is the strength of a person’s belief about whether a particular outcome is possible given one’s level of effort expended. In this paper’s model, expectancy is the salesperson’s belief about the sales response (the outcome) vis-à-vis his/her effort to the team. Suppose that the sales response function is  $X = f(h, E_1, E_2)$ , where  $E_1$  and  $E_2$  are effort level of team member<sup>3</sup> 1 and 2;  $h$  represents other factors (such as price, advertising, etc.) that are believed to influence the sales level beyond efforts of team members. As expectancy theory implies, an individual team member’s beliefs about this function has a positive impact on his/her effort level.

For instance, suppose sales team members have the following sales response function in mind:

$$X = h + k \times E_1 \times E_2 \quad (2)$$

As such, they believe that they interact with each other and that their efforts *together* (through joint interaction) contribute to team selling outcomes. Job design, group norms, and team members’ repeated experience allow team members to develop this belief

and reinforce it.<sup>4</sup> For instance, in industrial selling, frequently a salesperson and a technician work together. In this team selling context, a technician’s sole effort alone is unlikely to lead to the final sale. In the same way, the salesperson cannot finalize a transaction without the technician’s support. An alternative to the foregoing situation would be a pooling of *independent* efforts of team members; accordingly, team members perceive their outcome response function as  $X = h + \gamma_1 \times E_1 + \gamma_2 \times E_2$ . That is, they believe that they contribute to the team outcome together, but *separately*. This is the case when two salespeople’s outcomes are pooled, but they do not believe that they interact with each other to increase the outcome. Although there is free-rider problem in pooled teamwork, its problem is less severe than in the interactive teamwork in (2). (This point will be illustrated in subsequent sections of the paper.)

*Instrumentality.* Instrumentality is the belief linking one’s outcome to his/her payoff (the reward). Bonus pay that is distributed randomly or poorly communicated would lead to low instrumentality perceptions. Alternatively, commission pay schemes that tie compensation directly to performance afford sales personnel to recognize that their performance is positively instrumental for the acquisition of their reward (money) (Pinder, 1991). In this regard, the incentive pay rate,  $B$ , in total compensation should be meaningful enough to maintain high instrumentality. In other words, if management wants high performance levels, it must tie positive reward outcomes to high performance,  $X$ , and ensure through clear communication that team members understand this connection.

*Valence.* Vroom uses the term valence to refer to the affect people hold with regard to outcomes. The important feature of valence for work-related outcomes is the level of satisfaction the salesperson expects to receive from the outcome (Pinder, 1991). Individuals attribute either positive or negative preferences to outcomes according to the satisfaction or dissatisfaction that they expect to receive from them. To integrate expectancy theory with economic theories of team compensation, valence can be defined as the utility that a person receives from his/her monetary reward less the cost of his/her effort. The cost of effort may include mental, physical, and opportunity cost of effort, which typically follows a marginally increasing disutility (cost of effort) function with respect to his/her effort level. Assume a marginally increasing disutility function such as  $c(E_i) = d_i \times E_i^2$ . then team member  $i$  will likely perceive that his/her utility (valence),  $V_i$ , as a function of his/her total reward less the cost of his/her effort:

<sup>4</sup> For more detailed explanation, see Feldman (1984) and Bettenhausen and Murnighan (1985). Feldman explains that group norms are developed through explicit statements of supervisors, critical events in the group’s history, primacy, or carry-over behaviors from past situations. Bettenhausen and Murnighan empirically test how group norms are developed.

<sup>2</sup> Vroom (1964) considers this as the psychological force to perform.

<sup>3</sup> Here we assume two persons in a team. This assumption will be relaxed in a later section of the paper.

$$V_i = F_i + BXp_i - d_i E_i^2.$$

Because the outcome is a function of the focal member's effort as well as the other member's effort shown in (2), the focal team member  $i$  will choose his/her effort level,  $E_i$  that maximizes his/her utility,  $V_i$ :

$$\max_{E_i} F_i + B(h + kE_i E_j)p_i - d_i E_i^2 \quad (3)$$

Note that this utility maximization is consistent with the logic of expectancy theory in that an individual's effort depends on the magnitude of expectancy, instrumentality, and valence. That is, (a) a firm should effectively communicate with its sales team members about the compensation system shown in (1) to increase *instrumentality*, (b) it should have team members believe that the nature of the sales response function is represented in (2) in order to increase *expectancy*, and (c) it should take into account the cost of sales team member effort and undertake efforts to improve total utility—*valence*—effectively and efficiently.

Maximizing one's total utility based on his/her belief about the sales response function given the compensation plan characteristics, the sales team member should perceive the optimal effort level,  $E_i^*$ , which maximizes his/her utility:

$$E_i^* = \frac{B \times p_i \times k}{2d_i} E_j, \quad (4)$$

where  $i, j=1,2, i \neq j$ . That is, the individual will perceive that he/she should exert more effort as the firm sets a higher  $p$  and  $B$ , because he/she will increase his/her total compensation as he/she works harder. As the interaction coefficient  $k$  increases, the sales team member exerts more effort because he/she perceives a higher expectancy of his/her effort. The marginal expense of disutility,  $d$ , negatively affects the effort level. These results are consistent with the sales force compensation literature (e.g., Lal and Srinivasan, 1993). The distinct finding is that the interaction coefficient,  $k$ , and the effort level of the other member in team selling,  $E_j$ , are positively related to the optimal effort level of the focal sales team member. The foregoing analysis and discussion lead to the following propositions:

*Proposition 1.a: If a firm effectively has communicated with its sales team employees about the nature of the compensation system shown in (1) and if sales team employees believe that the nature of sales response function is expressed in (2), then as the incentive rate increases, a team member will exert more effort.*

*Proposition 1.b: If a firm effectively has communicated with its sales team employees about the nature of the compensation system as shown in (1) and if sales team employees believe that the nature of sales response function is expressed in (2), then as the firm's recognition of individual*

*contribution to the team outcome increases, a team member will exert more effort.*

*Proposition 1.c: If a firm effectively has communicated with its sales team employees about the nature of the compensation system shown in (1) and if sales team employees believe that the nature of the sales response function is expressed in (2), then as the intensity of team interaction increases, a team member will exert more effort.*

*Proposition 1.d: If a firm effectively has communicated with its sales team employees about the compensation system shown in (1) and if sales team employees believe the nature of sales response function is expressed in (2), then as the team members exerts more effort, a team member will exert more effort.*

*Proposition 1.e<sup>5</sup>: If a firm effectively has communicated with its sales team employees about the compensation system shown in (1) and if sales team employees believe the nature of sales response function is expressed in (2), then as the disutility coefficient increases, a team member will exert less effort.*

#### a) Sales Team Incentive Compensation vis-à-vis the Five Sales Team Dimensions

Propositions 1a-1e addressed how sales team employees will be motivated. In this section of the paper, the analytical model is extended by building on our understanding of sales force motivation and team selling incentive pay vis-à-vis the five key sales team dimensions addressed earlier.

#### b) Interaction in Team Selling and Its Impact on Team Incentive Pay

As defined earlier, in a pooled team members' efforts contribute to the outcome independently and separately (i.e., outcome response function is  $X = h + \gamma_1 \times E_1 + \gamma_2 \times E_2$ ). So, utility-maximizing in a pooled team will affect a team member's effort as  $E_i^* = \frac{B \times p_i \times \gamma_i}{2d_i}$ . Note that the optimal effort level does not depend on other team members' efforts in a pooled team.

However, in interactive team selling, a focal member's optimal effort level depends on a co-worker's effort level. Thus, a game theoretic nature exists between two members in an interactive team, but not in a pooled teamwork. If a co-worker increases his/her effort level, the focal player has an incentive for working

<sup>5</sup> Propositions 1.a to 1.e seem to ignore salary payment. This is because uncertainty in the sales response function or the risk-averse individual has not been taken into account. The salesforce compensation literature shows that the optimal compensation plan for risk-averse salespeople confronting uncertainty includes a substantial portion of salary (e.g., Coughlan and Sen, 1989). It is also true in team selling because team members are still likely risk averse partly owing to uncertainty. Thus, 100% incentive pay for team selling is unlikely to be optimal.

hard, as his/her marginal productivity increases. However, when the co-worker decreases his/her effort level, the focal player reduces his/her effort level owing to decreased marginal productivity. Essentially, this situation can be viewed as a simultaneous Cournot game between players 1 and 2. (See Dixit [1986], Fisher [1961], Hahn [1962], Seade [1980], or Thorlund-Petersen [1990] for detailed technical and conceptual accounts of the simultaneously Cournot game.) In each period, players simultaneously decide their effort levels by considering the average value of their co-worker's past effort level. Consider the following dynamic process:

$$\mathbf{E}^t = (E_1^t, E_2^t) = \left( g_1 \sum_{\gamma=0}^{t-1} E_2^\gamma, g_2 \sum_{\gamma=0}^{t-1} E_1^\gamma \right)$$

where  $g_i = \frac{B \times p_i \times k}{2d_i}$ ,  $i, j = 1, 2$ ,  $i \neq j$ . If the process converges, then the steady state is asymptotically stable—a Nash equilibrium. Also, when the process converges to a Nash equilibrium from every starting point, Nash equilibrium is globally stable. Assuming symmetric players without loss of generality—i.e.,  $E_i = E_j = E$ ,  $d_i = d_j = d$ ,  $p_i = p_j = p = 0.5$ , and  $F_i = F_j = F$ —the process converges to “best,best” effort when  $g$  is greater than one. It converges to “minimum” effort when  $g$  is less than one. These Nash equilibriums are globally stable because the process converges from every starting point. Thus, in order to induce “best, best” efforts, a firm should find the optimal incentive rate,  $B^*$ , which satisfies  $g > 1$ . Specifically, in the interactive team selling, the optimal team incentive rate for risk neutral team members should be

$$B^* > \frac{4d}{k}. \quad (5)$$

A firm can induce “best,best” effort from risk-neutral members in interactive team selling by setting a team incentive rate that satisfies (5). This is because in each period each team player has an incentive to exert his/her effort more than the co-worker's effort level when condition (5) holds. However, if a firm could not satisfy (5) and used interactive team selling, each team player in the team would likely exert minimum effort in the long run.

Sales managers need to ascertain *initially* whether there is a need for lower high interaction among sales team members. If there is a need, then they should ask if the firm is able to achieve condition (5). Overall, as interaction intensity reflected in  $k$  decreases, the team incentive rate,  $B$ , should be higher to induce the best efforts in team selling.

If a firm could not offer team incentive payment that satisfies condition (5), the team might collapse. To discern the magnitude of the team incentive rate, condition (5) can be modified to  $B^* > \frac{4dE^2}{kEE}$ . In this

condition, the team incentive rate should be greater than the ratio of four times of the disutility to outcome from team member interaction. Notice that  $B$  has an upper-level limit. For instance,  $B$  should be less than one to secure a positive profit when  $X$  is defined as gross profit. Thus, conceivably a firm may not satisfy condition (5) with any team incentive payment. Analytical results indicate that the feasibility of the team incentive rate—which induces the best efforts among team members—widens as the interaction intensity among team selling members increases. If a firm cannot find the feasible team incentive rate, the firm should redesign team work to reduce disutility coefficients or increase the interaction intensity,  $k$ , for team productivity. The previous discussion can be summarized as follows:

*Proposition 2. a: As interaction intensity among team selling employees increases, the feasibility of team incentive rates that induce the best efforts among team members increases.*

*Proposition 2.b: If sales outcomes rely on interaction among sales team employees, increased incentive pay is more effective to induce the best efforts when interaction among team member employees is low.*

#### c) Peer Pressure and Its Impact on Team Incentive Pay

High interaction among team members might create peer pressure, as members' behaviors tend to be visible to each other (Chan, Li, and Pierce, 2009). What would a team member do if a co-worker reduces his/her effort but still enjoys the benefit from the team outcome? Are team members saints or suckers so that they still exert their best efforts? Kerr (1983) offered reasons that people do not want to be suckers. First, the sucker role is inimical because it is inequitable (Adams, 1965). Second, it violates a norm of social responsibility—every member of the group is obligated to contribute to the group.

Third, it violates a norm of reciprocity: namely, “if I contribute to the group, and hence indirectly to your benefit, then you are obligated to reciprocate.” Kerr (1983) also averred that playing the sucker role may invite further attempts at exploitation by others in the work team. Therefore, a team player might be reluctant to reduce his/her effort level because he/she is concerned about possible adverse responses from his/her co-workers in subsequent periods.

Applying the concept of the “repeated prisoner's” dilemma” (Kreps, Milgrom, Roberts, and Wilson, 1982) illustrated the foregoing behavior. Suppose two members in a selling team play the repeated game. Deviation from the best effort of one player brings a better pay off to him/her. But if *both* deviate from the best effort level, both receive a *lower* payoff than under the cooperative best efforts. Accordingly, *peer pressure* can be defined as a focal

player's belief that "if I deviate from the best effort, my co-worker will also deviate."

Kandel and Lazear (1992) introduced a "peer pressure" function in teamwork and showed that with peer pressure equilibrium, effort is higher than it would be without peer pressure. Other researchers have also discovered that peer pressure can enhance the effectiveness of lower-powered incentives (Barron and Gierde, 1997; Che and Yoo, 2001), increase productivity by reducing free-rider problems (Knez and Simester, 2001), and interact with team size (Backes-Gellner, Mohnen, and Werner, 2006). Empirical evidence revealed that a positive impact of peer pressure on an individual's effort contributed to assigned tasks (e.g., Falk and Ichino, 2006; Sausgruber, 2005). To extend the

above ideas, the degree of peer pressure can be manipulated. Also, note that peer pressure introduced is healthy in a sense that peer pressure increases both team outcomes and each player's utility.

Suppose that if two symmetric players exert their best effort,  $\bar{E}$ , then each player's payoff is  $O$ , "cooperative payoff." When one player exerts the best effort, and his/her co-worker deviates from the best effort to  $\bar{E} - \varepsilon$  (where  $\varepsilon$  is any small number between 0 and  $(\bar{E} - E^*)$ ), the player's payoff will be  $S$ , and the co-worker's payoff will be  $T$ . When both players deviate from their best efforts, each player's utility will be  $P$ , "competitive payoff."

Figure 1 : The Structure of a Basic Prisoner's Dilemma

		Player 2	
		$\bar{E}_2$	$\bar{E}_2 - \varepsilon$
Player 1	$\bar{E}_1$	$O_1, O_2$	$S_1, T_2$
	$\bar{E}_1 - \varepsilon$	$T_1, S_2$	$P_1, P_2$

Shown in Figure1 is the pay off matrix of two members working in a selling team where the payoffs are as follows:

$$\begin{aligned} O &= F + .5B \times f(\bar{E}, \bar{E}) - c(\bar{E}), \\ T &= F + .5B \times f(\bar{E} - \varepsilon, \bar{E}) - c(\bar{E} - \varepsilon), \\ S &= F + .5B \times f(\bar{E}, \bar{E} - \varepsilon) - c(\bar{E}), \text{ and} \\ P &= F + .5B \times f(\bar{E} - \varepsilon, \bar{E} - \varepsilon) - c(\bar{E} - \varepsilon), \end{aligned}$$

where  $f(\cdot)$  and  $c(\cdot)$  are the sales response function and disutility function, respectively. If  $T < O$ , each team member does not have any incentive to reduce his/her effort level from the best effort level.

$$O > T, \text{ or } B^* > \frac{2[c(\bar{E}) - c(\bar{E} - \varepsilon)]}{f(\bar{E}, \bar{E}) - f(\bar{E} - \varepsilon, \bar{E} - \varepsilon)} \quad (6)$$

This condition can be written as  $B^* > 4d/k^6$  in the interactive team for very small  $\varepsilon$ . In the pooled team structure, (6) can be expressed as  $B^* > 4d\bar{E}/\gamma_i$  for very small  $\varepsilon$ . In either team structure, each member does not have any incentive to reduce team effort from the "best" effort.

If  $T > O$ , each team member has an economic incentive to reduce his/her effort level from the best effort level so that in interactive team selling each member will reduce his/her effort in each period and end up with the "minimum, minimum" effort. However, if a focal team member feels peer pressure—"If I defect, my co-worker will also defect"—his/her behavior will likely

likely be different. That is, the salesperson will compare cooperative payoff  $O$  with competitive payoff  $P$ , and if  $O$  is greater than  $P$ , the player will sustain his/her best effort.

$$O > P, \text{ or } B^* > \frac{2[c(\bar{E}) - c(\bar{E} - \varepsilon)]}{f(\bar{E}, \bar{E}) - f(\bar{E} - \varepsilon, \bar{E} - \varepsilon)} \quad (7)$$

This can be rewritten as  $B^* > 2d/k$  and  $B^* > 4d\bar{E}/(\gamma_1 + \gamma_2)$  for the interdependent and pooled team, respectively. Observe that if there is peer pressure on deviation from the best effort, the optimal team incentive rate,  $B^*$ , which sustains "best, best" efforts, is feasible—although team members likely have an incentive to shirk. That is, they do not shirk owing to peer pressure. Note, however, that peer pressure does not work if condition (7) is not satisfied. For instance, if  $B < 2d/k$ , in interactive team selling even with peer pressure people will likely shirk. This might happen because (a) a firm offers a very small team incentive payment or (b) team members have extremely high marginal disutility or very low marginal team productivity. The foregoing analyses lead to the following research propositions:

*Proposition 3.a: As peer pressure—a belief that "if I deviate from the best effort, my co-worker will also deviate"—among sales team employees increases, the feasibility of team incentive rates that induce the best efforts among sales team employees increases.*

*Proposition 3.b: If the cooperative payoff is greater than the competitive payoff, a sales team employee—owing to peer pressure—will not deviate*

<sup>6</sup>  $B > \frac{2[dE^2 - d(E - \varepsilon)^2]}{kE\bar{E} - kE(\bar{E} - \varepsilon)}$  or  $B > \frac{2d(2\bar{E} - \varepsilon)}{kE}$ . Taking  $\lim_{\varepsilon \rightarrow 0}$  on the equation, we get  $B > 4d/k$ .

from the best effort even if a sales team employee deviates from the best effort.

Summarizing key differences between  $B^*$  in this repeated prisoners' dilemma game and the optimal range (5) in the Cournot game seems beneficial. The major difference between the two models is that the optimal team incentive in the Cournot game is globally stable, whereas the optimal  $B$  in the repeated prisoners' dilemma game is not globally stable. That is, in the Cournot game the motivation factor  $g$  pushes up the effort level to the "best" effort in every starting point in an interactive team. The optimal team incentive range in the repeated prisoners' dilemma game, however, is sufficient only when the game starts with the "best, best" efforts. The second difference is that team members in the Cournot game maximize their present utility; in the repeated prisoners' game, though, they maximize not only their current utility but also their future utility. (This point will be further demonstrated in the following section.) The third difference between the two models is the assumption of the presence of peer pressure in the repeated prisoners' dilemma game.

#### d) Membership Stability and Its Impact on Team Incentive Pay

An implicit assumption implied in previous sections is that team membership is sufficiently stable. In the Cournot game two players work together for a sufficiently long time so that they become the "best" effort players. Similarly, in the repeated prisoners' dilemma game, the assumption is made that team members typically work together so that they consider the responses of their co-worker in subsequent periods. However, membership in team selling is not always stable but can sometimes be fluid. Moon and Armstrong (1994) reviewed both academic and practitioner-oriented literature about sales teams and conceptualized the selling team as a continuum between a "core selling team" and "selling center." In this section of the paper, the effect of membership stability on optimal team incentive rate is analyzed.

The optimal team incentive found in the Cournot game is valid even for fluid teams, but the adjustment process up to "best, best" effort slows down as team membership becomes fluid. The speed of the adjustment process depends mainly on the magnitude of  $g$  and the periods for which two members work together. Reduced chances of working together in team selling will slow down the adjustment process up to the "best, best" effort.

In the repeated prisoners' dilemma game, the effect of team stability interacts with peer pressure. Let  $\delta$  represent a probability of the two team members' continuing to work in the same team. Then, the expected payoff for each player when both play their best effort based on the repeated prisoners' dilemma is

$$O[1/(1 - \delta)]. \quad (8)$$

When the focal player deviates at time  $t$ , he/she knows that he/she will get  $T$  but also knows that *the co-worker will punish him/her by reducing effort from time  $t+1$* ; as such, the expected payoff to the focal player is

$$O[(1-\delta^{t-1})/(1-\delta)] + T + P[\delta^{t+1}/(1-\delta)] \quad (9)$$

If (8) is always greater than (9), the team player will not deviate from the best effort. The  $\delta$  that satisfies (8) > (9) can easily be found as the following:

$$\delta > \frac{T-O}{T-P} \quad \text{or} \quad (10)$$

$$B > \frac{2[c(\bar{E}) - c(\bar{E} - \varepsilon)]}{f(\bar{E}, \bar{E}) - (1 - \delta)f(\bar{E} - \varepsilon, \bar{E}) - \delta f(\bar{E} - \varepsilon, \bar{E} - \varepsilon)}$$

Assume that the selling team is permanent. In this case, one can assume that  $\delta$  is equal to one. Therefore, when team membership is permanent,  $1 > (T-O)/(T-P)$  is the condition for the team members not to deviate from their best efforts. After rearranging  $1 > (T-O)/(T-P)$ ,  $O > P$ s obtained, which is same as equation (7).

To ascertain the impact of membership stability on the optimal team incentive, deriving the optimal team incentive rate for a fluid team is necessary. As the membership becomes fluid, the probability to continue working in the same team,  $\delta$ , approaches "zero." For instance, if a firm selects randomly one salesperson from six salespeople and one from two technicians for each sales opportunity, each sales rep has a 50% chance of working with any technician. In this case, the behavior responding to the team incentive would be different. Assume that  $\delta = 0.5$ , then equation (10) becomes  $5 > (T-O)/(T-P)$ .

If we set  $\delta = 0$ , then it becomes a temporal sales team. Members work together only once. In this temporal team selling situation, the optimal team incentive range becomes  $O > T$ , which is the same as (6). By comparing the cases of temporal, fluid, and permanent selling teams, observe that *as the membership becomes stable, the effectiveness of peer pressure increases*. A managerial implication of this result is that a firm should design its selling team to be as stable as possible to make peer pressure work effectively. The equation implies that, as the probability to continue working in the same team increases, team selling members will cooperate (they will do their best.). Thus, the following propositions are offered:

*Proposition 4.a: As the membership in a sales team becomes more stable, the feasibility of team incentive rates that induces the best efforts among sales team members increases.*

*Proposition 4.b: The incentive pay for sales team employees is more effective when the membership is stable than when the membership is fluid.*

e) *Uncertainty over Co-Workers' Efforts and Its Impact on Team Incentive Pay*

A sales person often confronts several sources of uncertainty, such as various customer needs, macroeconomic factors, and market competition. As discussed earlier, a sales person in a selling team has another source of uncertainty—co-workers' effort levels. To capture the effects of uncertainty on optimal effort level, consider the following:

$$\text{var}(h + kE_i\hat{E}_j) = \text{var}(h) + \text{var}(kE_i\hat{E}_j) + 2\text{cov}(h, kE_i\hat{E}_j) = \sigma^2 + k^2E_i^2\sigma_j^2$$

Note that the covariances between  $h$  and  $E_j$  are assumed to be trivial and to be zero. Assume that each team member is constantly risk averse. Then, the following certainty equivalents in interactive team selling can be determined:

$$F_i + .5B(h + kE_i\hat{E}_j) - dE_i^2 - \frac{r}{2}(.25)B^2(\sigma^2 + k^2E_i^2\sigma_j^2)$$

Note that  $r$  indicates the degree of risk aversion. Maximizing one's certainty equivalent, a focal member finds

$$E_i^* = \frac{B \times k}{4d + r \times (.5)B^2 \times k^2 \times \sigma_j^2} E_j, \quad (11)$$

where  $i, j=1,2, i \neq j$ . The optimal effort level depends on the uncertainty about a team member's effort level. That is, the optimal effort level decreases as the degree of uncertainty about the co-worker's effort level increases, in incorporating risk-averse, team incentive, and team productivity coefficients. This is because team members care only about uncertainties that are related to their efforts. Note, however, that all kind so fun certainty reduce the perceived utility of the risk-averse agent, so that if a firm extracts all the surplus utility from team members by choosing a given team incentive rate, any kind of uncertainty will influence the optimal effort level of a risk-averse agent through the team incentive rate (Basu et al., 1985; Lal and Srinivasan, 1993).

Deriving the team incentive rate that induces the "best,best" effort in an interactive selling team, a firm should find  $B$  such that

$$\left[ \frac{Bk}{4d + r(.5)B^2k^2\sigma_j^2} \right] > 1$$

Solving for  $B$ , the range of  $B$  that induces the "best, best" effort is as follows:

$$B^* \in \left( \frac{1 - \sqrt{1 - 8dr\sigma_j^2}}{rk\sigma_j^2}, \frac{1 + \sqrt{1 - 8dr\sigma_j^2}}{rk\sigma_j^2} \right) \quad (12)$$

Here, the team incentive rate that induces the "best,best" effort exists if  $B$  satisfies equation 12 and the feasibility condition as follows:

$$X_i = f(\hat{h}, E_i, \hat{E}_j),$$

where  $i, j=1,2, i \neq j$ ;  $\hat{h}$  and  $\hat{E}_j$  are focal player  $i$ 's estimates of  $h$  and  $E_j$ , which are random variables with variances  $\sigma^2$  and  $\sigma_j^2$  respectively. If one assumes interactive team selling, total uncertainty can be found by calculating total variances, per the following:

$$1 - 8dr\sigma_j^2 \geq 0 \text{ or } dr\sigma_j^2 \leq \frac{1}{8} \quad (13)$$

There is a key difference in an optimal team incentive rate between the case of assumed risk neutral and risk averse. For a risk-averse team member, as the team incentive rate increases, the variance of the utility also augments and the increased variance reduces the utility of the member. For a risk-neutral member, though, the increased variance does not reduce his/her utility. Therefore, when agents are risk averse, if condition (13) does not hold, a firm cannot find any team incentive rate that induces a "best,best" effort. The disutility coefficient, risk averseness, and uncertainty about a co-worker's effort should be managed as low as possible for a firm to find a team incentive rate that induces the "best,best" effort. The preceding discussion leads to the following:

*Proposition 5.a: For risk-averse sales team employees, as uncertainty about a co-worker's effort level increases, the feasibility of team incentive rates that induces the best efforts among team members decreases.*

If the team incentive rate that induces a "best,best" effort is feasible, the mean of  $B^*$  is most effective because it makes the motivation factor,  $g$ , the highest. It is most effective because the higher motivation factor shortens the adjustment period toward a "best,best" effort. Thus, by looking at the mean  $B^*$ , the optimal team incentive rate can be found as follows:

$$\bar{B}^* = \frac{1}{rk\sigma_j^2}, \text{ where } \bar{B}^* \text{ is mean of } B^*. \quad (14)$$

As risk aversion, team productivity, or uncertainty about a co-worker's effort decreases, the optimal team incentive rate,  $\bar{B}^*$ , rises. When the team incentive rate is high, a risk-averse team member feels less utility for his/her effort than a risk-neutral individual, because a high team incentive rate augments the variation in income. Increased variation makes the risk-averse player perceive lower utility. Thus, a firm should set a lower team incentive rate for risk-averse team players. For instance, if technicians are highly risk averse compared with sales personnel, the firm would

more aptly apply a lower team incentive rate for the technicians than for the salespeople.

A high level of team productivity with a high team incentive rate increases the expected team reward and thus motivates team players. Nevertheless, this condition can also increase variation in income. The analysis here presumes that when team productivity is high, a lower team incentive is preferred. In other words, when team productivity is high, even a low team incentive rate is sufficient to obtain motivation factor  $g > 1$ , so that team players increase their effort up to the best effort. When uncertainty about a co-worker's effort is high, an increased team incentive can reduce motivation in the focal team member because high uncertainty with a high team incentive can generate a larger variation of his/her reward than with a low team incentive. When uncertainty about a co-worker's effort is high (e.g., initial periods of team selling), a lower team incentive rate is better; but as the uncertainty decreases, a higher team incentive is better to induce the best effort. Accordingly, the following proposition is offered:

*Proposition 5.b: When uncertainty about a co-worker's effort level is high, a lower team incentive rate will be more effective with risk-averse sales team employees than with risk-neutral members.*

*f) Size of Team and Its Impact on Team Incentive Pay*

So far, two-person teams have been assumed. In this section, the assumption is relaxed, and the effect of team size on incentive pay is explored. As the complexity of product and/or sophistication of customer needs increases, team selling often requires an increasing number of team members (Hair et al., 2009). When they work together, each member feels more uncertainty than when he/she sells alone. This is because the sales outcome depends not only on his/her effort but also on others' efforts. Theoretical models for sales force compensation (e.g., Basu, Lal, Srinivasan, and Staelin, 1985; Lal and Srinivasan, 1993) have proposed that as uncertainty increases, the proportion of incentive pay to salary decreases. In fact, empirical studies have supported this relationship (Joseph and Kalwani, 1995; Lal, Outland, and Staelin, 1994).

There are several effects of increased team size. At first, it is easy to see that as team size increases, a moral hazard problem increases. Assume  $N$  members in a sales team and their sales response function is given by  $f(\mathbf{E})$ , where  $\mathbf{E}$  is an  $N$ -dimensional vector of team members' effort levels. Further assume that  $p_i$  is  $1/N$  for all team members, and the disutility associated with effort is given by  $c(E_i)$ , where  $c' > 0$ , and  $c'' > 0$ . The focal team member wants to maximize  $\max_{E_i} F_i + \frac{1}{N} Bf(\mathbf{E}) - c(E_i)$  with first-order conditions

$$\frac{1}{N} Bf_i(\mathbf{E}) - c'(E_i) = 0. \quad (15)$$

Efficiency requires that total surplus be maximized or that  $\max_{E_i} \sum_{i=1}^N F_i + Bf(\mathbf{E}) - \sum_{i=1}^N c(E_i)$  with first-order conditions

$$Bf_i(\mathbf{E}) - c'(E_i) = 0 \quad (16)$$

Because  $c'' > 0$ ,  $\bar{E}_i$  is defined as the solution to (15), exceeds  $\mathbf{E}^*$ , defined as the solution to (16) for  $N > 2$ , and the moral hazard problem is getting severe as  $N$  increases.

Another point is that as the number of team members increases, each team player will feel more uncertainty about the outcome response to his/her effort. For instance, suppose three people,  $i$ ,  $j$ , and  $k$ , work together, then  $i$  will encounter various possibilities of an outcome response to his/her effort like  $X = h + k_i E_i + k_2 E_j + k_3 E_k + k_4 E_i E_j + k_5 E_i E_k + k_6 E_j E_k + k_7 E_i E_j E_k$ , where  $k$  is either zero or some positive numbers. A focal player  $i$  will perceive increased uncertainty because he/she will be uncertain about two co-workers' efforts, and these two will interact with each other, thus increasing uncertainty. The model here predicts that the increased uncertainty owing to an augmented number in sales team members will decrease optimal effort level; moreover, increased uncertainty tends to lower the optimal team incentive rate, which is found in the previous section.

Two predictions can be made regarding the *size effect on peer pressure*. At first, one might say that peer pressure will increase as team size increases, because of increased sources of peer pressure. When a focal player  $i$  is thinking about shirking, he/she will consider the averse response of *two* team members rather than *one* player. A focal player would perceive more disutility, not only because of two players' shirking responding to the focal player's defection, but also because of isolation from team workers or active punishment from peers. Based on increased peer pressure, as team size increases, peer pressure will likely go up and, as a result, effort will rise and feasibility for optimal team incentive will also increase. Furthermore, the effect of peer pressure is maximized when the team is designed to be as stable as possible.

However, there is a counter argument, too. As team size increases, peer pressure could be reduced. This is because detection of an individual member's shirking will be more difficult for team players in a large team than in a small team. A player might reduce his/her effort and hide in the crowd. Thus, one cannot unambiguously conclude the impact of peer pressure as team size increases. One could speculate, though, that peer pressure will increase for small teams (such as with five to seven members), but peer pressure will go down as team size increases.

In sum, increasing team size (a) magnifies free-rider problem, (b) increases uncertainties, and (c) may

increase peer pressure for small numbers. Thus, the following propositions are proffered:

*Proposition 6.a: As the size of the selling team increases, the feasibility of team incentive rates that induces the best efforts among team members increases.*

*Proposition 6. b: As the size of the selling team increases, the optimal portion of the incentive pay for team selling decreases.*

## V. DISCUSSION

In this paper, systematically observed have been the effects of sales team dimensions on team incentive pay. The interaction among team members, peer pressure, uncertainty, membership stability, and team size effects on incentive pay for team selling were analyzed. A set of propositions was presented

Most findings from germane sales compensation literature about individual selling compensation can be applied to team selling compensation. However, additional understanding is needed to design effective team selling compensation. An appropriate incentive pay system is necessary but not sufficient to guarantee the success of team selling. Successful team compensation issues should be integrated into other team management issues.

### a) Managerial Implications

*Team Selling vs. Individual Selling.* The sales force compensation literature offers many important insights for team selling. In his early pioneering article, Farley (1964) showed that commission rates should be a function of gross margin rather than sales revenue to induce profit-maximizing effort of salespersons. This finding should be applied to a team incentive pay system. As such, sales managers may well consider tying the incentive rate for team selling to gross margin.

Farley's research has been extended (e.g., Basu et al, 1985; Davis and Farley, 1971; Srinivasan, 1981; Lal and Srinivasan, 1993; Zhang and Mahajan, 1995). In general, that work has found that as uncertainty, risk aversion, or disutility increases, the portion of commission vis-à-vis total compensation should decrease. These findings might conceivably be applied to team selling compensation.

For instance, as a team confronts more environmental *uncertainty*, the team incentive rate should be lower. A sales person in a team faces more uncertainty owing to another source of uncertainty—incertitude from the level of other team members' efforts. From industry practice, a lower portion of incentive pay for team selling compares with individual selling. Similarly, the optional incentive pay for team selling is lower than in individual selling. Different levels of *risk aversion* among team selling members should be considered. If salespeople are less risk averse than

technicians in the team, the optimal incentive pay rate should be different. That is, salespersons will work harder when a higher incentive rate is applied, but technicians will likely prefer a higher degree of fixed compensation. Also, different levels of *disutility* for effort should be considered when designing incentive pay for team selling. For instance, for a technician who has a higher coefficient of disutility for his/her effort, the firm should apply a lower portion of team incentive for him/her.

### *Incentive Pay and Sales Team Management.*

The arguments set forth in this paper rely on several assumptions about team selling management. It is assumed that a firm has built a team structure for selling and has constructed a team compensation plan. Also presupposed is that a firm has effectively communicated with its team members about its compensation plan and that team members believe in the effect of team interaction on their team outcome. An effective incentive pay structure (based on the paper's propositions) is a necessary, but not sufficient condition for team success, however. A firm needs a team that functions effectively before designing an appropriate incentive pay system.

### b) Limitations and Future Research

Although the incentive pay problem for team selling was examined in a systematic analysis, several limitations of the work should be noticed. First, this paper was developed in a deterministic setting. Beliefs about sales response functions might be even more complex than in the two types of sales response functions in this paper. Not all uncertainties were integrated into the model. Thus, a challenge remains concerning further development of the model. Second, only team compensation issues were examined. The success of team activity depends not only on compensation reinforcement but also on other team management techniques. The gap between a reinforcing pay structure and team culture might be a major concern. Inefficient communication might also frustrate team work, even if the firm offers an appropriate team incentive system.

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## Household Behaviour towards Personal Care Products: A Comparative Study of Rural and Urban Mizoram

By Laldinliana

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**Abstract-** The present study tries to highlight the behaviour of households as a consumer unit with a view to make a coherent analysis of the factors influencing the purchase of personal care items i.e. toothpaste, bath soap, hair oils/creams and body lotions. 640 households were sampled for the study from rural and urban areas covering all the functioning 8 districts of Mizoram. Promotion was found to be the most prominent factor triggering purchase behaviour among the respondents, followed by price and health benefits of the product.

**Keywords:** consumers, households, rural, urban, toothpaste, bath soap, hair oil/cream, body lotion.

**GJMBR-E Classification :** JEL Code: R20, R29



*Strictly as per the compliance and regulations of:*



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## I. INTRODUCTION

The market players' performance with respect to product, price, distribution and promotion results in perceptions held by buyers and prospective buyers. Perceptions, in turn, affect purchases and the market share. The consumers and their behaviour constitute the causal variables in marketing, making the roots of any strategic design. All marketing plans embody myriad assumptions about the buyer. Whether the marketers are trying to retain customers, to convert buyers from rivals, to attract new users, or simply to increase sales with existing customers, marketing strategy seeks to influence the buyer (Jyoti Kumar NVR, 2003).

In marketing literature, much attention has been devoted to urban customers even though the rural India is nearly three times the urban population. Sakthivel Rani (2010) identified markets according to their urban-rural characteristics as developed markets and developing markets, respectively. In his study, Srinivas Rao (2002) observed that the rural marketing scenario was quite contrasting in nature and characteristics. The rural markets were undeveloped and unorganised as the people who constitute them generally are so. Poor standard of living, economic backwardness, and also social and cultural backwardness were some of the features of rural markets. Level of literacy was seen to be lower in rural areas and the rate of literacy varies across the region and sex. Another important feature of rural market was that it was largely agriculture oriented,

inaccessible because of transportation bottlenecks. All such parameters give an impression that the rural markets are less attractive from the marketers' point of view.

However, the Indian marketers have realised the strength of the rural markets in terms of its size and purchasing power. To elaborate further, the Indian Market Demographics Report (2003), submitted by the National Council of Applied Economics and Research (NCAER), the rural households spent Rs. 3,384 a year on average for 22 non-durable products including packaged foods while the urban households spent Rs. 7,559 on such products. According to Ruchi Trehan (2009), the rural India is changing at a great pace and catching up with the urban India in its own unique way. Growing population, growing rural incomes and government investment in rural development programmes are some of the factors contributing to the growth of Indian rural market. Growth in cosmetics and toiletries is expected to be robust during 2008-2013 in constant value terms. While urban consumers will drive growth, rural consumers are expected to contribute to rising volume sales of basic necessities, such as hair care and oral hygiene. Improved distribution chains in rural areas will give consumers better access to cosmetics and toiletries (The Marketing Whitebook 2010-2011, 2010).

Mizoram, being one of eight States in the North East India, is identified with its own signature of homogeneous population and common ethnicity. The Mizoram population is almost evenly distributed in rural and urban areas (Statistical Handbook, 2008), though the distribution of wealth would be skewed sharply towards the urbanites. The penetration of media into even remote rural areas is found to be quite aggressive, and resultantly the awareness level of rural consumers has been rising. It is in this context that the researcher made an attempt to make a comparative study on the buying behaviour of households towards personal care products in rural and urban Mizoram.

## II. OBJECTIVES OF THE STUDY

1. To identify the purchase frequencies of personal care items by the households in rural and urban areas

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2. To study the factors influencing the purchase of personal care items by the households in rural and urban areas.

### III. RESEARCH METHODOLOGY

The descriptive research design is applied for the study. A comprehensive questionnaire was designed to enquire into the problem. The questionnaire was administered to the sample households from both rural and urban areas. For allocation of sample, Bowley's allocation was used to select the rural and urban areas. The study was conducted in all the eight functioning districts, namely, Aizawl, Champhai, Kolasib, Lawngtlai, Lunglei, Mamit, Saiha and Serchhip. All the district headquarters were identified as urban areas for the purpose of the study. The rural household samples were drawn from the following villages: Saitual and Aibawk from Aizawl district, Khawbung and Khawzawl from Champhai district, Bilkhawthlir and Vairengte from Kolasib district, Chawngte and Diltlang from Lawngtlai district, Hnahthial and Zobawk from Lunglei district, Rawpuichhip and Kawrthah from Mamit district, Tuipang and Sangau from Saiha district and N. Vanlaiphai and Thenzawl from Serchhip District. 40 urban households were taken from each district headquarters to represent the urban customers and 20 households from each of the villages mentioned above to represent the rural customers, making it 40 rural households for every district. In all, 640 households i.e. 80 households from each district, 40 from urban areas and 40 from rural areas were drawn as a sample to represent the whole State. The random sampling method was used for the purpose of identifying the household customers in each area. Pearson Correlation Analysis was used to determine correlations between variables and their significance of relationship was fitted at 95% level of significance. Microsoft Excel 2007 was used for the calculation of the correlation coefficient.

#### a) *Buying behaviour of households toward personal care product*

For the study, proprietors of six prominent wholesaling business houses viz. BT Enterprise, H Huliana & Sons, Bama Charan Dey & Sons, Masuma Traders, Mizoram Agencies, Hauva & Sons and RTP were interviewed on the different brands that are well-positioned in the Mizoram market. Four personal care products – toothpaste, bath soap, hair oils and creams, and body lotions were the products in point for the present research. In all, Hindustan Levers, Godrej and Dabur are the major brand players for personal care products in Mizoram.

##### i. *Toothpaste*

Toothpaste is one of the personal care representations for nondurable products. From the information obtained from the wholesalers and stockists, some of the popular brands found in the Mizoram

market are: *Colgate* produced by Colgate India Pvt. Ltd., *Pepsodent* and *Close-Up* (Hindustan Unilever), *Promise* (Dabur Ltd.), *Calcium* (Sarvotham Care Ltd.), *Vi-John* (Mja Healthcare Division) and *Red Toothpaste* (Dabur Ltd.). Table 1 shows the purchase frequency of toothpaste by the sample household customers in Mizoram.

*Table 1 : Purchase frequency of toothpaste*

Purchase Frequency	Number of household customers		
	Total	Rural	Urban
Daily	-	-	-
3 times a week	-	-	-
2 times a week	-	-	-
Once a week	125 (19.53)	45 (14.06)	80 (25)
Twice a month	175 (27.34)	66 (20.62)	109 (34.06)
Once a month	340 (53.13)	209 (65.31)	131 (40.93)
Total	640	320	320

*Note: Figures in parentheses are percentages.*

Over half of the sample household customers purchase toothpaste on monthly basis while more than one-fourth of households would buy toothpaste twice a month. About two-thirds of rural respondents preferred to buy toothpaste once a month compared to 40.93% of urban respondents.

Further, Table 2 shows the factors affecting the purchase of a brand of toothpaste.

*Table 2 : Buying factors for toothpaste*

Factors	Number of household customers		
	Total	Rural	Urban
Price	131 (20.46)	67 (20.94)	64 (20)
Packaging	86 (13.44)	32 (10)	54 (16.88)
Health	89 (13.91)	41 (12.81)	48 (15)
Flavour	58 (9.06)	21 (6.56)	37 (11.56)
Promotion	184 (28.75)	82 (25.63)	102 (31.88)
Word-of-mouth	86 (13.44)	71 (22.19)	15 (4.69)
Others	6 (0.94)	6 (1.88)	-
Total	640	320	320

*Notes: 1. Figures in parentheses are percentages.  
2. Others include: family habit, and discount*

The table indicates that promotion was the most important buying factor for toothpaste for 25.63% of the rural customers and 31.88% of the urban customers. Since a variety of toothpaste brands were found in the

market, promotion was perceived as the most important determinant affecting the purchase decision of 28.75% of the respondents.

Price was the most significant factor for about one-fifth of the household customers, both urban and rural. It is interesting to note that word-of-mouth was perceived as more important buying factor by the rural customers (22.19%) than the urban customers (4.69%).

Fitting the Pearson's correlation analysis, the coefficient between rural and urban samples is arrived at 0.6282. The critical value of Pearson's product correlation at .05 level of significance is 0.754 for degree of freedom (df) = 5 i.e. (n-2), which is greater than the calculated coefficient. Therefore, it can be deduced that the relationship between the buying factors for rural and urban samples for toothpaste is insignificant.

#### ii. Bath soap

The Mizos were introduced to bath soap by the Christian missionaries as means of keeping personal hygiene in the late 19<sup>th</sup> century.<sup>1</sup> As stated earlier, bath soap is considered as a product relating to a segment of personal care, along with toothpaste, hair oil/creams and body lotions. Some of the popular brands of bath soap identified on the basis of data collected from the wholesalers and stockists in the Mizoram market are: *Cinthol* (produced by Godrej), *Frama di Wills* and *Vivel* (ITC), *Lux*, *Pears* and *Lifebouy* (HUL), *Aloe Vera* (VVF Ltd.), *Park Avenue* (SK Helen Curtis International), *Eve* (PT Megasurya), *Dyhnna* (Anchor H & BC Pvt. Ltd.), *Margo* (Henkel Co.) and so on.

With regard to the frequency of purchase, Table 3 shows that almost 36% of the sample household customers in Mizoram purchase bath soap once a month, 32.50% purchase twice a month and 30.94% once a week.

**Table 3 :** Purchase frequency for bath soaps

Purchase Frequency	Number of household customers		
	Total	Rural	Urban
Daily	-	-	-
3 times a week	-	-	-
2 times a week	5 (0.78)	2 (0.62)	3 (0.93)
Once a week	198 (30.94)	96 (30)	102 (31.87)
Twice a month	208 (32.50)	100 (31.25)	108 (33.75)
Once a month	228 (35.62)	124 (38.75)	107 (33.44)
Total	640	320	320

*Note: Figures in parentheses are percentages. It may be noted that the rural and urban household customers do not differ much with regard to purchase frequency of bath soaps.*

The factors influencing the purchase of bath soap can be seen in Table 4.

**Table 4 :** Buying factors for bath soap

Factors	Number of household customers		
	Total	Rural	Urban
Price	82 (12.81)	31 (9.69)	51 (15.94)
Packaging	57 (8.91)	32 (10)	25 (7.81)
Health	112 (17.5)	46 (14.38)	66 (20.63)
Fragrance	137 (21.41)	66 (20.63)	71 (22.19)
Promotion	174 (27.19)	84 (26.25)	90 (28.13)
Word-of-mouth	67 (10.47)	55 (17.19)	12 (3.75)
Others	11 (1.72)	6 (1.88)	5 (1.56)
Total	640	320	320

*Notes: 1. Figures in parentheses are percentages.  
2. Other factors include: Family habit, foam, and durability*

For bath soap, promotion was indicated as the most important buying factor by both the rural respondents (26.25%) and urban respondents (28.13%). *Business Standard*<sup>2</sup> (2009) stated that personal care products, primarily bath soaps, lead TV advertising in all India level. It may be inferred that for media savvy Mizoram household customers, promotion was the most important buying factor for personal care products such as bath soaps. AdEx (2010), from their study, observed

<sup>1</sup> A tradition as told by the early church leaders. When the Welsh missionaries first came to Mizoram, they exclaimed that the Mizos are the dirtiest tribe. They started personal hygiene campaigns and even gave soap as prizes to those who stood ranked in various contests in elementary schools and Sunday schools.

<sup>2</sup> The source of data was from TAM (Television Audience Measurement) Media Research, *Business Standard* published on December 17<sup>th</sup>, 2009.

that many companies concentrated on 'Freshness-Fragrance' feature for positioning their bath soap. This phenomenon may be observed from the present study as fragrance of the soap was perceived to be the most significant buying factor for 20.63% of the rural customers and 22.19% of the urban customers. Health related attributes such as medicated, moisturising and nourishing of soap was considered as the most important buying factor by 14.38% of rural customers and 20.63% of urban customers. However, a significant difference existed in the responses given to word-of-mouth as the most important buying factor by the rural respondents (17.19%) as against their urban counterparts (3.75%).

Fitting the Pearson's correlation analysis, the coefficient between rural and urban samples is arrived at 0.7492. The critical value of Pearson's product correlation at .05 level of significance is 0.754 for degree of freedom (df) = 5 i.e. (n-2), which is more than the calculated coefficient. Therefore, it can be deduced that the relationship between the buying factors for rural and urban samples for bath soap is insignificant.

### iii. Hair oils and creams

Hair oils and creams are an important personal care product in Mizo society. As per the researcher's observation, some of the popular brands of hair oils/creams in Mizoram are: *All-Clear* (manufactured by HUL), *Hair and Care* (Marico Ltd.), *Ayush* (HUL), *Vasmol* (Hygeinic Research Institute Pvt. Ltd.), *Parachute* (Marico Ltd.), *Brylcreem* (Godrej), *Almond Drops* (Bajaj Co.), *Jasmine* (Marico Ltd.) and *Simax* (Sirmour Herbals).

Recently, the younger generation started emulating hair styles of Koreans and Americans that resulted in rising sales of styling gels like *Gatsby*, *Style-Up*, and *Country Gel*. Television broadcasted advertisements for hair creams with superior hair fixing properties to target these young emulators. *Brylcreem*, *Parachute* etc. are the regularly advertised hair oils and creams in the television. The purchase frequency of hair oils and creams by the respondents in the present study are displayed in Table 5

**Table 5:** Purchase frequency of hair oils/creams

Purchase Frequency	Number of household customers		
	Total	Rural	Urban
Daily	-	-	-
3 times a week	-	-	-
2 times a week	-	-	-
Once a week	86 (13.44)	32 (10)	54 (16.87)
Twice a	226	126	100

month	(35.31)	(39.37)	(31.25)
Once a month	328 (51.25)	161 (50.31)	166 (51.88)
Total	640	320	320

*Note: Figures in parentheses are percentages*

The table indicates that about half of the household customers purchase hair oils and creams on monthly basis while 35.31% of the respondents would buy twice a month. The factors which motivate the sample household customers to buy a particular brand of hair oils and creams are shown in Table 6. Promotion was the most important factor for buying hair oils and creams for 38.13% of the sample customers. AdEx stated that ad volume is growing year by year in hair care sector, indicating 33% jump in the year 2009 alone. Price was the significant motivating factor for 17.97% of the respondents.

**Table 6:** Buying factors for hair oils/creams

Factors	Number of household customers		
	Total	Rural	Urban
Price	115 (17.97)	101 (31.56)	14 (4.38)
Features	85 (13.28)	32 (10)	53 (16.56)
Packaging	32 (5)	21 (6.56)	11 (3.44)
Fragrance	72 (11.25)	30 (9.38)	42 (13.13)
Promotion	244 (38.13)	84 (26.25)	160 (50)
Word-of-mouth	81 (12.66)	49 (15.31)	32 (10)
Others	11 (1.27)	3 (0.94)	8 (2.5)
Total	640	320	320

*Notes: 1. Figures in parentheses are percentages.*

*2. Others include: Habit, and family members*

However, the table shows stark differences in the responses given to promotion and price as buying factors by the rural and urban households. While half of the urban households indicated promotion as the most important buying factor, only 26.25% of the rural households indicated the same opinion. 31.25% of rural customers opined that the price of hair oils and creams as the main buying factor. Only 3.75% of the urban customers were price sensitive. It may be inferred that more number of urban respondents were influenced by the promotional efforts of hair oils and creams companies than the rural respondents. The urban respondents seemed to be more fashionable in hairstyling and grooming than their rural counterparts.

Fitting the Pearson's correlation analysis, the coefficient between rural and urban samples is arrived at 0.4467. The critical value of Pearson's product

correlation at .05 level of significance is 0.754 for degree of freedom (df) = 5 i.e. (n-2), which is greater than the calculated coefficient. Therefore, it can be deduced that the relationship between the buying factors for rural and urban samples for hair oils and creams is insignificant.

#### iv. Body lotions

Mizoram has a cool climate with an average temperature of maximum 26.15C and a minimum of 17.28C (as per records in 2007) and an average relative humidity range from 95% to 60%. The climate and humidity of the State invite a good market for body lotions, in the category of personal care products. With the entry of cosmetic brands, including some international brand names, such as *Lakme*, *Oriflame*, *Avon*, *Aviance*, *Garnier*, *Dove*, *Loreal* and *Mary Kay* in Mizoram, body lotions, now have become almost a necessity especially to the urban household customers. Another reason may be the multilevel marketing used by many cosmetic companies. This strategy is used extensively by many companies like *Avon*, *Aviance*, *Mary Kay*, and *Oriflame*, to name a few. Campaigners of different designations for different companies at different levels are 'recruited' to bring in more customers. Multilevel marketing is the main reason why these companies have made presence in almost every town and bigger villages. However, it is difficult to document the actual number of these networks as they do not register themselves as business entity. Apart from the well-known brand names, many products from the neighbouring country, Myanmar are occupying market shelves too. These products are comparatively low priced and come in bigger containers. The purchase frequency of body lotions for the household customers can be seen in Table 7.

*Table 7:* Purchase frequency of body lotions

Purchase Frequency	Number of household customers		
	Total	Rural	Urban
Daily	-	-	-
3 times a week	-	-	-
2 times a week	-	-	-
Once a week	100 (15.63)	39 (12.18)	61 (19.06)
Twice a month	176 (27.50)	97 (30.31)	79 (24.68)
Once a month	364 (56.88)	184 (58.43)	180 (56.25)
Total	640	320	320

*Note: Figures in parentheses are percentages*

56.88% of the sample household customers preferred to buy body lotions once a month and 27.50% of them twice a month. Interestingly, body lotions were found to be an essential household product of every household respondent in Mizoram.

Table 8 shows the factors motivating the respondents in buying of body lotions.

*Table 8:* Buying factors for body lotions

Factors	Number of household customers		
	Total	Rural	Urban
Price	91 (14.22)	57 (17.81)	34 (10.36)
Packaging	54 (8.44)	41 (12.81)	13 (4.06)
Features	126 (19.69)	65 (20.31)	61 (19.06)
Fragrance	65 (10.16)	30 (9.38)	35 (10.94)
Promotion	281 (43.91)	111 (34.69)	170 (53.13)
Word-of-mouth	23 (3.59)	16 (5)	7 (2.19)
Total	640	320	320

*Note: Figures in parentheses are percentages.*

Almost 44% of the sample household customers expressed promotion as the most important buying factor for body lotions, followed by product features (19.69%) and price (14.22%). Product features include skin nourishment, moisturising and sun protection. As per AdEx data, there was 24% rise in advertising in 2009 for skin care products, of which body lotions constituted one-fourth of all skin care advertising. Therefore, it may be inferred that promotion played a crucial role as a factor influencing the purchase of body lotions. However, there was a significant difference between the rural (34.69%) and urban (53.13%) customers. This may be due to the increased media exposure on the part of the urban respondents.

Fitting the Pearson's correlation analysis, the coefficient between the rural and urban samples is arrived at 0.93533. The critical value of Pearson's product correlation at .05 level of significance is 0.811 for degree of freedom (df) = 4 i.e. (n-2), which is lesser than the calculated coefficient. Therefore, it can be deduced that the relationship between the buying factors for rural and urban samples for body lotions is significant.

## IV. CONCLUSIONS

In case of personal care products, the sample respondents' choicest factor influencing their buying behaviour was promotion for all the four items of personal care products, namely, toothpaste, bath soap, hair oils/creams and body lotions as indicated in Table 9.

*Table 9* : Respondents' three choicest buying factors for personal care products

Ranks	Toothpaste	Bath soap	Hair oils/creams	Body lotions
1	Promotion	Promotion	Promotion	Promotion
2	Price	Fragrance	Price	Health
3	Health	Health	Packaging	Price

*Note: Ranking is given on the basis of the figures shown in Tables 2, 4, 6 and 8*

Price was the second choicest buying factor for toothpaste and hair oils/creams while fragrance was the second choicest buying factor for bath soap and health was the second choicest factor for body lotions. Coming to the third choicest buying factor, health was a buying factor for both toothpaste and bath soap while packaging and price were the buying factors for hair oils/ creams and body lotions, respectively. It may be concluded that promotion, price, health, fragrance and

packaging were the prominent factors (not necessarily in the same order) influencing the purchase of personal care products.

With regard to the rural and urban respondents, promotion was the choicest buying factor for all items of personal care products, except in the case of rural respondents for hair oils/creams as indicated in Tables 10 and 11. Price was considered the choicest buying factor by the rural respondents for hair oils/ creams.

*Table 10* : Rural respondents' three choicest buying factors for personal care products

Ranks	Toothpaste	Bath soap	Hair oils/creams	Body lotions
1	Promotion	Promotion	Price	Promotion
2	Word-of-mouth	Fragrance	Promotion	Health
3	Price	Word-of-mouth	Word-of-mouth	Price

*Note: Ranking is given on the basis of the figures shown in Tables 2, 4, 6 and 8*

*Table 11* : Urban respondents' three choicest buying factors for personal care products

Ranks	Toothpaste	Bath soap	Hair oils/creams	Body lotion
1	Promotion	Promotion	Promotion	Promotion
2	Price	Fragrance	Packaging	Health
3	Packaging	Health	Fragrance	Fragrance

*Note: Ranking is given on the basis of the figures shown in Tables 2, 4, 6 and 8*

There was no unanimity among the rural respondents in respect of their second choicest buying factor for all types of personal care products studied. Price was considered the third choicest factor for toothpaste and body lotions by the rural respondents while word-of-mouth was considered as the third choicest factor for bath soap and hair oils/creams by them. Overall, it can be inferred that the important factors affecting the rural respondents in their purchase of personal care products were: promotion, word-of-mouth, price, fragrance and health (not necessarily in the same order).

Promotion was the urban respondents' choicest buying factor for all types of personal care products. Fragrance was considered one of the three choicest buying factors influencing the urban respondents in case of three types of personal care products, namely, bath soap, hair oils/creams and body lotions. While packaging was an important consideration for toothpaste and hair oils/creams, health was considered an important buying factor in case of bath soap and body lotions. It can be inferred that the important factors affecting the urban respondents in their purchase of personal care products were: promotion, fragrance, packaging, health and price (not necessarily in the same order).

It can be concluded that the rural respondents were more price sensitive than their urban counterparts in case of personal care products, and word-of-mouth was considered as an important buying factor by the rural respondents.

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## Demographic Segmentation of the Cruise Industry

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**Abstract-** The cruise industry caters to a highly diverse customer base, making it crucial for cruise companies to craft different marketing strategies for different passenger segments. Therefore, it is quite surprising that the academic literature on the cruise industry that studies antecedents of satisfaction at the segment level is quite limited. To fill this gap, this study first segments cruise passengers into five most common segments based on passenger demographics and then determines the impact and relative importance of different cruise ship attributes on each segment's satisfaction. We collected 1000 post experience reviews from passengers of over 150 cruise ships. Our data comprises a diverse and large sample, which was lacking in prior studies. This provides a realistic picture of cruise passengers' perception and evaluation of factors that influence their satisfaction. We provide actionable implications for the managers of cruise companies which may be used for fine tuning advertising messages and customizing product offering for each segment.

**Keywords:** *cruise industry, customer satisfaction, demographic segmentation.*

**GJMBR-E Classification :** JEL Code: L69



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# Demographic Segmentation of the Cruise Industry

Amita Bhadauria <sup>α</sup>, Amit Bhatnagar <sup>σ</sup> & Sanjoy Ghose <sup>ρ</sup>

**Abstract-** The cruise industry caters to a highly diverse customer base, making it crucial for cruise companies to craft different marketing strategies for different passenger segments. Therefore, it is quite surprising that the academic literature on the cruise industry that studies antecedents of satisfaction at the segment level is quite limited. To fill this gap, this study first segments cruise passengers into five most common segments based on passenger demographics and then determines the impact and relative importance of different cruise ship attributes on each segment's satisfaction. We collected 1000 post experience reviews from passengers of over 150 cruise ships. Our data comprises a diverse and large sample, which was lacking in prior studies. This provides a realistic picture of cruise passengers' perception and evaluation of factors that influence their satisfaction. We provide actionable implications for the managers of cruise companies which may be used for fine tuning advertising messages and customizing product offering for each segment.

**Keywords:** cruise industry, customer satisfaction, demographic segmentation.

## I. INTRODUCTION

The global cruise industry has witnessed steady expansion in the past few decades and continues to be one of the most lucrative segments in the tourism sector. Approximately, 21.5 million passengers took a cruise ship vacation in 2013 and the number of cruisers is expected to increase to 24.1 million by 2018 (Cruise Market Watch, 2014), maintaining an annual passenger growth of 7.2% since 1980 (FCCA, 2014). Total revenue generated by the cruise industry reached \$420.4 billion in gross output in the US in 2012 and this was a 5% increase from 2011 (CLA, 2013) and was 1.8% higher than the overall growth in leisure travel and tourism spending worldwide in 2012 (World Travel and Tourism Council, 2014). Based on the growth trend, investment in the cruise industry is predicted to be more than \$22 billion between 2011 and 2015 (CLIA, 2013). Cruise lines are proactively preparing to meet the escalating demand indicated by the trend of cruise ships constantly operating at above 100% capacity (CLIA, 2014).

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The augmented competition and growth in the cruise market calls for the need to understand consumer preferences in order to retain existing or acquire new customers. However, there is a dearth of customer satisfaction studies in the cruise industry despite the increasing need to examine customer preference trends. Fewer studies focus on the subject of market segmentation pertaining to the cruise industry (Petrick & Sirakaya, 2004, Petrick, 2005, Petrick, 2011, Brida et al., 2012). The purpose of our research is to identify cruise passenger preferences by segmenting them into demographic profiles based on the cruise they chose; for instance, family cruises, single's cruises etc. Specifically, our research is based on post experience reviews by cruise passengers who travelled on cruises characterized by certain demographic segments; family, singles, honeymoon & romantic, seniors and disabled cruises. We posit that the preferences of cruise passengers are likely to be distinguishable based on their demographic profiles. For instance, the preferences and requirements of passengers on a family cruise are expected to differ from the passengers on a seniors cruise. We analyze the consumer preferences based on 200 reviews for each segment collected from cruise critic.com which is a popular platform where cruise passengers contribute their post experience reviews.

Our research makes substantial contribution to the pool of cruise industry literature. Firstly, our study contributes to the limited literature in the area of cruise passenger segmentation. Secondly, it provides actionable implications for the cruise companies based on post experience reviews of their current and potential repeat customers. Moreover, we use demographics of cruise passengers as our criteria for segmentation and our findings make it feasible for managers to identify segments and improve their service offerings without further complicated processing on their behalf. We analyze attributes which are integral features of most cruise vacation and can be feasibly altered to the inclination of consumers. These implications are specially actionable and valuable to the cruise companies with limited resources who would rather invest their capital in identified preferences of each customer segment. Thirdly, our research is based on 1000 post experience reviews from over 150 diverse cruise ships in terms of ports, itineraries and cruise lines which reflects the most palpable evaluation of cruise

passengers as opposed to data from a small number of ships in the relatively few prior studies that exist.

In the next section we review relevant literature on market segmentation followed by description of our data and methodology. We next report the results of our analysis, discussion and conclusion. The last section of our paper comprises detailed tables of our data and analysis for each segment.

## II. LITERATURE REVIEW

### a) *Demographic segmentation in tourism*

Kotler & Armstrong (1980) describe segmentation as the process of dividing heterogeneous markets into smaller and more homogenous segments, based on the needs, behaviour and characteristics of consumers. The undeniable appeal of segmentation as a marketing strategy is attributed to its ability to increase customer satisfaction of a segment (Pickton & Broderick, 2005). Consequently, segmentation is a well-established, extensively used and widely-acclaimed marketing strategy used by firms in all geographies and industries. Among other criteria of market segmentation, demographic segmentation is a frequently used one. Demographic segmentation refers to the division of a market into clusters on the basis of demographic characteristics of consumers such as gender, education, income, family life cycle, race, nationality etc. (Bowen, 1998). A primary reason for the popularity of demographic segmentation is that is that consumer preferences, requirements and usage rates are closely related to their demographics which are easily measurable (Bowen, 1998)

Extant research in the field of tourism has emphasized the significance of segmentation as a marketing strategy (Cha et. al, 1995; Kastenholz et. al, 1999; Bieger & Laesser, 2002). Furthermore, extensive studies in tourism have used demographic segmentation as a basis for segregating market into segments (Weaver et. al, 2001; Seiler et. al, 2002; Horneman et. al, 2002; Carmichael & Smith, 2004; Chang, 2006). Inbakaran et. al (2012), conducted a study to identify the market segments based on the demographic profiles of visitors to a popular beach destination. They identified four distinct demographic segments and provide recommendations for resort marketing based on the preferences of each segment. A similar study by Chi (2011) aimed at investigating the loyalty of tourists for a destination based on their demographic profiles. This research found palpable similarities and difference in preferences of tourists based on their demographic characteristics such as age, income, gender and education. Furthermore, choice of recreation activities which are a part of most of the vacations are also impacted by demographic characteristics of travellers (Tangeland, 2013). They found that young males interested in Norwegian nature

based tourism prefer different recreation activities such as freshwater fishing and hunting compared to backcountry hiking and skiing preferred by young females. Taking a cue from such prior research, we examine the demographic segments in the cruise industry based on the choice of cruise style by passengers.

### b) *Demographic segmentation in the Cruise Industry*

Prior studies in the area of cruise industry have primarily examined the general antecedents of cruise passengers' satisfaction opposed to exploring the preferences of cruise passenger segments. We seek to fill this void by investigating the differences in preferences of cruise passengers based on their demographic profiles.

Limited research exists on market segmentation in the cruise sector that focuses on segmentation criteria. Researchers have identified factors such as price sensitivity, loyalty, perception of cruise line reputation, expectations from a cruise vacation etc. (Marti, 1991; Petrick & Sirakaya, 2004, Petrick, 2005, Petrick, 2011, Brida et al., 2012). There is a dearth of studies that explore the preferences of cruisers based on passenger demographics such as family, singles, seniors, etc. A pioneering study by Marti (1991) on market segmentation in the cruise industry revealed that segmentation is a vital strategy to succeed and increase market share. Their research coined the concept of non-traditional port which refers to a port that operates on a seasonal basis. They demonstrated geography as a significant factor that affects the attraction of cruisers for a non-traditional port. The cruisers exhibited preferences for non-traditional ports based on proximity to the place of residence. Fascinatingly, their results suggest that passenger's demographics and income did not have a significant impact on the choice of a non-traditional port.

A cruise vacation is frequently described as a dream experience by travelers, however; cruises are also labeled as one of the most expensive vacation options (Cruise Market Watch, 2014). A research conducted by Petrick (2005) aimed at segmenting cruise passengers based on their price sensitivity towards cruises had identified three segments; less sensitive, moderately sensitive and highly sensitive. This research shows that the less price sensitive customer segment is likely to spend more onboard and the more price sensitive segment is likely to assess their cruise vacation as a positive experience. These findings indicate that providing lower price cruise vacations will lure passengers who may spend less onboard but would appreciate their vacation more. These satisfied customers can provide repeat business and also spread positive word of mouth. Contrarily, affluent and less price sensitive consumers may prefer cruises without discounts but the business obtained from them may not be substantial enough to sustain profits in the long term.

The results of this research were based on data collected from two cruise ships.

Additionally, prior research has segmented cruise passengers based on loyalty (Petrick and Sirakaya, 2004) and perception of a cruise line's reputation (Petrick, 2011) as a criteria. The loyal passengers were found to exhibit higher satisfaction with their past cruise experience and rates and express a higher intention to cruise with the same cruise line. Moreover, the loyal customers were more likely to spread positive word of mouth. Interestingly, satisfied first time cruisers perceived a higher value for money and showed more satisfaction with the tangible and intangible services provided on the cruise ship. This research suggests that the conventional four-quadrant typology to explain loyalty (spurious, latent, low, high) does not account for all tourist loyalty. Nevertheless, the implications provided by this study come from the differences identified between first time cruisers and experienced cruisers and the features of a cruise that influence their loyalty.

A research shows a unique vantage point of segmentation based on perception of a cruise line's reputation and identifies three segments; highest perception of reputation, moderate perception of reputation and low perception of reputation (Petrick, 2011). This study revealed that the demographic profile of consumers had a negligible impact on the perception of a cruise line's reputation. However, reputation of a cruise line was found to have a significant effect on a cruisers' perceptions of price sensitivity, monetary price, behavioral price, quality, value, satisfaction, word of mouth and repurchases intentions. The results of this study are based on data collected from two seven-day Caribbean cruises on the same ship.

Two studies used conjoint analysis to explore segmentation in the cruise industry (Brida et al, 2012; Krieger, Moskowitz and Rabino, 2005). The research by Brida et al. (2012) segments cruise passengers' into clusters based on proximity in demographic profiles, expenditure patterns and general perceptions of their vacation experience in Uruguay. Their research identifies three cruisers segments based on trip profiles; retirees, professionals and repeat visitors. They provide managerial implications by suggesting marketing strategies for each segment. The findings of this study were descriptive in nature. The study by Krieger, Moskowitz and Rabino (2005) examines the expectations of the consumers regarding a cruise vacation. They utilized a conjoint analysis to sort cruise passengers into four groups based on their preferences; sightseeing, self-absorbed, pamper-me and novel up to date, informal. Furthermore, they crafted product offerings in accordance with the needs of each of the groups. The participants of this study indicated scenic views and sightseeing such as whale watching expeditions and beauty of the sea and views from the

decks as the most significant aspects of a cruise vacation. Value for money was found to be one the top three factors that influenced customer satisfaction.

The few studies that examine segments of consumers in the cruise ship industry are based on criteria such as price sensitivity, loyalty, perception of cruise line's reputation etc. Yet, research has not been conducted where the preferences of cruise customers are examined in accordance with their choice of cruise style based on their demographic profile. For instance, the cruisers who vacation on a family cruise have a different demographic profile than who take singles or disabled cruises. We hope to assist in filling this void through our research. Specifically, the purpose of our study is to investigate five preexisting segments; family, singles, seniors, disabled and romantic & honeymoon cruises, based on how cruise passengers select their cruise style. These five segments are derived from the cruise styles typically offered by cruise lines and cover a large portion of the cruise market.

### III. METHODOLOGY

#### a) Data

We collected 1000 post experience reviews from the website [cruisecritic.com](http://cruisecritic.com) and these reviews were from passengers who vacationed on over 150 cruise ships. Cruise critic is a popular online destination for cruisers in search of information on cruises and also serves as a platform where they can contribute their vacation experience. This website comprises over 130,000 online review and receives over 3 million visitors every month ([Cruisecritic.com](http://Cruisecritic.com), 2014). Cruise critic is owned by Trip Advisor, a popular travel site. [Cruisecritic.com](http://Cruisecritic.com) allows reviewers to rate their experience, on a five point scale regarding attributes of cruise vacation. The cruise attributes that we utilize as independent variables in our study are dining, public rooms, cabins, entertainment, spa & fitness, shore excursions, embarkation, rates and service. Our dependent variable is member rating contributed by each reviewer regarding their overall satisfaction with the cruise experience.

Dining is one of the primary attractions for passengers on a cruise. Cruise vacations are characterized by lavish buffets and exquisite cuisines. The variable 'dining' captures the perception of cruisers pertaining to food and related services on the cruise. The common areas on a cruise ship present opportunities to relax in a community setting and engage in conversation with fellow passengers. The variable 'public rooms' captures the experience of cruisers with the common areas on a cruise ship such as the ballroom, reception and lounges. Cabins are equivalent to rooms in a hotel and a large variety of cabins are available on a cruise ship, ranging from a cabin with no windows to a large suite with a balcony

and breathe taking views. Vacation on a cruise ship is often described as legendary by many of the cruisers and many cruise lines are famous for their legendary entertainment such as musical concerts, Broadway shows, movie theaters, indoor malls, bungee jumping, casinos and masquerade balls. The variable 'entertainment' represents the experience of reviewers regarding entertainment on a cruise ship. A cruise ship is a world away from the world as it provides an opportunity to relax and unwind in the spa and fitness centers with massages, tanning and beauty treatments and this aspect is captured by the variable 'spa & fitness'. Embarkation is the procedure of boarding a cruise ship at the beginning of the vacation. This process can be long and tiresome as it usually requires paperwork and security checks. The embarkation experience is the first step of a cruise journey and it may influence overall cruise satisfaction. Cruise vacations are one of the most expensive travel vacations and rates are certainly one of the most important factors that may hold potential to either sweeten or make the experience sour. The average cost per passenger per day on a cruise ship is \$214 which totals to approximately \$1712 for a eight day cruise (Cruise Market Watch, 2014). The perception of money well spent can increase satisfaction and perception of exorbitant rates with bad experience can substantially decrease satisfaction. Cruise ships are famous for providing exceptional service on board and the variable, service, captures this aspect of the cruise customers' experience.

#### b) Empirical model

We used a multiple regression model to examine the effect of cruise attributes on cruise

passenger satisfaction. We use the same multiple regression model for five segments which are based on demographics of cruise passengers. We utilized the following model for our analysis,

$$\text{Customer Satisfaction rating} = \beta_0 + \beta_1 \text{Dining} + \beta_2 \text{Public rooms} + \beta_3 \text{Cabins} + \beta_4 \text{Entertainment} + \beta_5 \text{Spa \& Fitness} + \beta_6 \text{Shore Excursions} + \beta_7 \text{Embarkation} + \beta_8 \text{Service} + \beta_9 \text{Rates} + \epsilon$$

## IV. RESULTS

We first report the results for the customers who vacationed on Singles cruises. The results of the regression analysis are presented in Table 1. The model indicates a very good fit with a significant F statistic of 103.93 ( $p < 0.00$ ) and an adjusted R square of 0.823. The R square indicates that 82.3% of the variation in the outcome variable is accounted for by the independent variables. The most important attribute for cruise passengers who vacationed on a Singles cruise is dining followed by rates and entertainment. Singles cruises have a reputation to be a great platform for meeting other singles which may explain the high preference for public rooms by singles. Dining is another venue that affords an opportunity to singles to mingle with others and therefore it is not surprising that singles value those attributes that facilitate their meeting other singles.

Table 1 : Cruise attributes preferences for Singles cruises

Cruise Attributes	Coefficients	Standard Error	t Statistics	p value
(Constant)	-0.607	0.193	-3.14	0.002
Dining	0.253*	0.036	6.973	0
Public Rooms	0.344*	0.053	6.439	0
Cabins	0.078*	0.039	1.998	0.047
Entertainment	0.133*	0.039	3.379	0.001
Spa & Fitness	0.024	0.021	1.181	0.239
Shore Excursions	-0.011	0.019	-0.604	0.547
Embarkation	0.066*	0.031	2.157	0.032
Rates	0.17*	0.034	5.006	0
Service	0.101*	0.034	2.952	0.004

\* Significant at 0.05 level

R sq is 0.831

Adjusted R sq is 0.823

F Stats is 103.903

We next report the results of regression for customers who vacationed on Romantic and Honeymoon cruises in Table 2. The adjusted R square of 0.79 indicates that the independent variables explain 79% of variance in the dependent variable. The F statistic of 84.395 ( $p < 0.00$ ) shows a good model fit. Our results show that the passengers on a Honeymoon or

Romantic cruise consider rates and dining to have the highest influence on their satisfaction. The next three attributes that receive almost equal importance are service, embarkation and public rooms. This segment also considers cabins to be one of the attributes that can affect their satisfaction with the cruise.

Table 2 : Cruise attributes preferences for Romantic &amp; Honeymoon cruises

Cruise Attributes	Coefficients	Standard Error	t Statistics	p value
(Constant)	-.785	.231	-3.391	.001
Dining	.241*	.039	6.247	.000
Public Rooms	.147*	.051	2.854	.005
Cabins	.091*	.043	2.123	.035
Entertainment	.021	.035	.595	.552
Spa & Fitness	.066	.049	1.347	.180
Shore Excursions	-.017	.030	-.566	.572
Embarkation	.147*	.034	4.258	.000
Rates	.319*	.047	6.757	.000
Service	.170*	.044	3.872	.000

\* Significant at 0.05 level

R sq is 0.80

Adjusted R sq is 0.79

F Stats is 84.395

The results of a regression for family cruisers are shown in Table 3. This model explains 77.8% of variance in member rating with an adjusted R square of 0.778 and also shows a good fit indicated by F Stats of 78.442 ( $p < 0.00$ ). The family cruisers exhibited the highest preference for dining and service. This segment

also gave almost equal weightage to public rooms, cabins and shore excursions which were next in the order of preference, followed by embarkation and spa & fitness. This segment typically travels with children and young adults which explains their higher preference for dining and service as antecedents of satisfaction.

Table 3 : Cruise attributes preferences for Family cruises

Cruise Attributes	Coefficients	Standard Error	t Statistics	p value
(Constant)	-.957	.221	-4.323	.000
Dining	.301*	.046	6.527	.000
Public Rooms	.150*	.058	2.566	.011
Cabins	.150*	.050	3.034	.003
Entertainment	.070	.046	1.539	.126
Spa & Fitness	.118*	.039	3.025	.003
Shore Excursions	.134*	.035	3.855	.000
Embarkation	.129*	.041	3.154	.002
Rates	-.009	.048	-.180	.857
Service	.202*	.051	3.969	.000

\* Significant at 0.05 level

R sq is 0.78

Adjusted R sq is 0.778

F Stats is 78.442

We next report the results for the customers who reviewed their experience on seniors' cruises in Table 4. The model shows that our independent variables account for 67.4% variance in the dependent variable indicated by the adjusted R square of 0.674. The model for this segments exhibits a reasonably good fit with F statistics of 46.764 ( $< 0.00$ ). This segment shows highest preference for rates, public rooms and embarkation. The other attributes that influence satisfaction for passengers on seniors' cruises are cabins, service and entertainment. The passengers who choose to vacation on seniors cruises are likely to be limited in physical capabilities attributed to their old age, which explains high preference for embarkation, cabins and service. Embarkation on a cruise ship can often be a long and tedious process which can take a toll on senior cruisers and high importance for embarkation as

an antecedent of customer satisfaction supports this notion. This segment did not indicate dining as an antecedent of satisfaction which may be attributed to dietary restrictions of seniors

Table 4 : Cruise attributes preferences for Seniors cruises

Cruise Attributes	Coefficients	Standard Error	t Statistics	p value
(Constant)	-1.552	.300	-5.165	.000
Dining	.060	.043	1.407	.161
Public Rooms	.231*	.069	3.363	.001
Cabins	.217*	.050	4.338	.000
Entertainment	.135*	.041	3.279	.001
Spa & Fitness	.009	.025	.374	.709
Shore Excursions	.023	.029	.773	.441
Embarkation	.225*	.040	5.555	.000
Rates	.295*	.055	5.400	.000
Service	.152*	.044	3.459	.001

\* Significant at 0.05 level

R sq is 0.689

Adjusted R sq is 0.674

F Stats is 46.764

The results for regression for passengers on Disabled cruises are reported in Table 5. The model is a reasonably good fit with F statistics 47.998 ( $p < 0.00$ ) and explains 68% of variance in the member rating which is indicated by an adjusted R square of 0.68. The cruisers who travel on disabled cruises perceive rates

and service as the most significant determinants of customer satisfaction, followed by embarkation cabins and dining. Similar to senior cruisers, limited physical capabilities and increased need for assistance may explain the preference for service and embarkation, among other attributes.

Table 5 : Cruise attributes preferences for Disabled cruises

Cruise Attributes	Coefficients	Standard Error	t Statistics	p value
(Constant)	-.611	.254	-2.409	.017
Dining	.167*	.055	3.057	.003
Public Rooms	.020	.075	.261	.794
Cabins	.188*	.047	4.013	.000
Entertainment	.075	.044	1.693	.092
Spa & Fitness	.036	.024	1.452	.148
Shore Excursions	.039	.024	1.624	.106
Embarkation	.196*	.043	4.590	.000
Rates	.232*	.062	3.756	.000
Service	.210*	.049	4.266	.000

\* Significant at 0.05 level

R sq is 0.695

Adjusted R sq is 0.680

F Stats is 47.998

## V. DISCUSSIONS AND MANAGERIAL IMPLICATIONS

their satisfaction with a cruise vacation and present the results in Table 6.

We compare the five demographic segments in terms of the relative salience of the factors that influence

Table 6 : Cruise ship attributes preferences for the five demographic segments

Order of importance	Singles	Honeymoon & Romantic	Family	Seniors	Disabled
1	Public Rooms	Rates	Dining	Rates	Rates
2	Dining	Dining	Service	Public Rooms	Service
3	Rates	Service	Public Rooms	Embarkation	Embarkation
4	Entertainment	Public Rooms	Cabins	Cabins	Cabins
5	Service	Embarkation	Shore Excursions	Service	Dining
6	Cabins	Cabins	Embarkation	Entertainment	
7	Embarkation		Spa & Fitness		

The findings of this research suggest that dining is the most significant feature of a cruise vacation for cruisers on family cruises. Furthermore, seniors were the

only ones who did not exhibit preference for dining which may be attributed to their dietary restrictions. The cruise passengers on seniors, disabled and honeymoon

& romantic cruises give the highest importance to rates. This is not surprising as this data was collected from the ships of one of the biggest cruise companies in the world. This company specializes in value vacations. They target customers who are price sensitive. Interestingly, rates appear to be a significant factor that influences cruise passenger satisfaction for all segments, except for family segment. The cruisers who travelled on a singles cruise gave utmost importance to public rooms which confirms intuition that their choice of cruise is driven by their motive to meet other singles.

Our results reveal some additional fascinating facets of each segment and many preferences confirm intuition. Embarkation had a significant influence on the preference of family, seniors, honeymoon & romantic and disabled cruisers. Seniors and the disabled may find a typical embarkation process as more tedious and inconvenient due to their limited physical capabilities and cruisers on a family cruise may have the same attitude because they are often accompanied by children. Disabled and family cruisers showed highest inclination for service compared to other segments as they may need additional assistance. We found entertainment to be an influential factor only for singles and seniors cruisers. Cruise passengers perceived cabins to be an important aspect of satisfaction with their cruise vacation, regardless of their segment. Spa & fitness amenities on board were found to be attractive to cruisers travelling on a family cruise.

These results confirm our expectation that the relative importance of attributes of cruise passengers, fluctuate with diverse demographic segments. Specifically, the consumers choose cruises based on their demographic profiles, hence, this serves as an efficient way of segmenting the cruise market. Differences in preference patterns of segments in our study provide significant managerial implications for cruise ship companies. Our research provides information that can help cruise companies to customize their product offerings according to the demographic profiles of customers in accordance with their choice of cruise style.

Specifically, our research has two significant managerial implications. First, our findings can be used to customize the advertising messages for different customer segments based on their demographic profiles. Second, the managers of cruise companies can use our research to improve their product offerings. The cruise industry constantly deals with the strategic issue of whether they should use uniform advertising messages for all their customers or customize their messages for each customer segment. Typically, managers elect the former route over the latter because it is cost-effective and easier to implement. Our research recommends the latter route as customer preferences vary with their characteristics and paying close attention to details for each segment would increase customer

satisfaction and help with product differentiation. Furthermore, our study identifies the most important attributes that need to be highlighted in advertising message for different demographic segments. The selection of criteria for identifying customer segments is yet another concern for managers. Our study analyzes five most common segments based on the cruise style the customers select based on their demographic characteristics and the results can be used to efficiently cater to these segments. For instance, singles looking to meet other singles choose to take a singles cruise, senior cruisers take a cruise advertised as a senior's cruise. We identify the relative preferences of each segment and provide cues to the managers of cruise lines for customizing their advertisements.

Our study suggests that rates and dining are the most vital attributes for the cruise passengers in the five segments. This implies that managers need to strive to run a cost-effective cruise ship and minimize expenses and wastage of resources on aspects that have little or no impact on cruise passenger satisfaction. Improvement of attributes of a cruise ship vacation requires different levels of resources and a firm should strive to improve on attributes that customers value the most. Careful allocation of resources to improve product offerings will allow cost-efficient cruise vacation packages and attract potential budget conscious customers. Our study provides direction on these issues as we identify the features that have the most impact on satisfaction for each customer segment. Preferably managers should focus on only a subset of features that is certainly important to their target customers.

There is potential to extend the present study in a number of ways. The R square for our five segments is reasonably high, however, there is room to capture more variables that account for variance. This implies that there are some other factors that are not included in our study. Future researchers can strive to find some more independent variables that impact customer satisfaction. Furthermore, we did not include age, gender and income of cruise passengers in our sample, as this data was not available to us. The cruise passengers who vary in age, income and gender are likely to perceive a cruise vacation differently and it would be worthwhile to examine them.

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## Segmenting Indian Consumers: A Psychographic Approach

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**Abstract-** Segmentation is the need of modern marketing because to serve the entire market is no more profitable. The very first step of market segmentation is to identify which variables are most important to segment or to group the customers into homogeneous groups. Usually more than one variable is used to give the description of market segments. The most common variables used are demographic, geographic, psychographic, and behavioural. In the present study demographic and psychographic variables are taken into consideration. The human behavior is dominated by the internal psycho of the individual and the way they treat with the society. The main psychographic variables as values, social interest, attitude and lifestyle are broadly taken into consideration. Cluster analysis is used to segment the market. Factor analysis is used to identify the factors for segmentation.

**Keywords:** segmentation, psychographic variables, factor analysis, clusters analysis.

**GJMBR-E Classification :** JEL Code: N30, M00



*Strictly as per the compliance and regulations of:*



# Segmenting Indian Consumers: A Psychographic Approach

Dr. Kiran Mor<sup>α</sup> & Sulekha<sup>σ</sup>

**Abstract-** Segmentation is the need of modern marketing because to serve the entire market is no more profitable. The very first step of market segmentation is to identify which variables are most important to segment or to group the customers into homogeneous groups. Usually more than one variable is used to give the description of market segments. The most common variables used are demographic, geographic, psychographic, and behavioural. In the present study demographic and psychographic variables are taken into consideration. The human behavior is dominated by the internal psycho of the individual and the way they treat with the society. The main psychographic variables as values, social interest, attitude and lifestyle are broadly taken into consideration. Cluster analysis is used to segment the market. Factor analysis is used to identify the factors for segmentation.

**Keywords:** *segmentation, psychographic variables, factor analysis, clusters analysis.*

## I. INTRODUCTION

Demographic segmentation is perhaps the most commonly used and most easy or natural segmentation to assess. It has been widely described in the literature that demographic characteristics are important factors to determine fruit intake (Turrell et. al, 2002). But demographic variables are losing their importance because of the cultural and social changes. Demographic factors are no more good for segmentation (Yenkelovich, 1968). However, they are useful only when they are correlated with the relevant objective function, such as purchase behavior or brand preference (Matsuno, 1998). The present study is related with the purchase behavior of consumers influenced by psychographic variables.

The main purpose of psychographic segmentation is based on attitude, lifestyle, value and interest. Lifestyle segmentation has been used for several marketing and advertising purposes (Wells and Tigers, 1977).

## II. OBJECTIVES

1. To identify the psychographic factors affecting the purchase behavior of consumers.
2. To segment the Indian market on the basis of psychographic factors.

## III. RESEARCH METHODOLOGY

The most widely used measures of lifestyle segmentation are Rotech's value survey, List of Values (LOV), Values and life Style (VALS2), and Activities, Interest, and Opinions (AIO). In the present study twenty five psychographic variables are used to segment the consumers. To reduce the data set or to make feasible study explanatory factor analysis is used, by which six meaningful factors are found.

One of the most common scales is used in the study that is Likert scale. It was developed by Rensis Likert in 1932. The Likert scale can be four-point, five-point, six-point, and so on. The even-numbered scale usually forces a respondent to choose while the odd-numbered scale provides an option for indecision or neutrality. The five point scale is used in the study as 1=strongly disagree, 2=disagree, 3=not sure, 4=agree, and 5=strongly agree.

A sample of 400 consumers selected through multi stage random sampling is used to draw the results by using factor analysis and cluster analysis. Statistical software PASW 18 is used to get the results.

## IV. RESULTS AND DISCUSSION

### a) Factor analysis to get the psychographic variables affecting purchase behavior of consumers

Before segmenting consumers market factor analysis is done to reduce the data set and to get the variables affecting the purchase behavior of consumers. An explanatory factor analysis is applied on twenty five psychographic variables.

For factor analysis, the problem of multi-collinearity has been checked. For this purpose the correlation coefficient of each and every variable is calculated. Correlation coefficients are not excessively large and each variable is reasonably correlated with other variables. Therefore none of the variable is dropped out. However, principal component analysis is used for factor extraction which indicates that there is no problem of multi collinearity.

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## b) Adequacy of sample size

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	6680.173
	Df	300
	Sig.	.000

Kaiser (1974) recommends a bare minimum of 0.5 and that values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb (Hutcheson & Sofroniou, 1999). Here in the present study the value is 0.828, which falls into the range of being great, so we should be confident that the sample size is adequate for factor analysis. Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. For factor analysis to work there should be some relationship between variables because if correlation matrix were an identity matrix then all correlation coefficients would be zero. Therefore Bartlett's measure tests that whether there is significant relationship between variables or not. Therefore a significant Bartlett's test tells that correlation matrix is not an identity matrix. For the present study data, Bartlett's test is highly significant ( $p < .001$ ), and therefore factor analysis is appropriate.

Here in the present study a principal component analysis was conducted on 25 variables or statements with orthogonal rotation or varimax. The Kaiser- Meyer-Olkin measure verified the sampling adequacy for the analysis,  $KMO = 0.828$  (great according to field, 2009) and all KMO values for individual items were  $> 0.7$ , which is above the acceptable limit of 0.5. Bartlett's test of sphericity  $\chi^2 (300) = 6680.173$ ,  $p < 0.001$ , indicated that correlations between items were sufficiently large for principal component analysis. An initial analysis was run to obtain the eigenvalues for each factor. The factor analysis retained only six components in the final result and the table below shows the factor loadings after rotation. The items that grouped same factor indicate that factor 1 represent the personal values, factor 2 work values, 3 social interests, 4 general attitude for life, 5 prudent and factor 6 is of brand conspicuous.

Rotated Component Matrix

	Component					
	1	2	3	4	5	6
s24	.854					
s12	.852					
s23	.821					
s13	.809					
s20	.752					
s9	.698					
s10		.844				
s1		.833				
s2		.821				
s21		.806				
s25			.880			
s19			.875			
s16			.664			
s17			.623			
s18			.587			
s7				.933		
s6				.931		
s22				.928		
s4					.924	
s15					.908	
s14					.905	
s11						.830
s5						.807
s3						.801
s8						.732

*Extraction Method as Principal Component Analysis and Rotation method as varimax with Kaiser Normalization were used to get the factors.*

The table of transformation matrix provides the information about the degree to which factors were rotated to obtain the final solution. If no rotation were necessary this matrix would be identity matrix. If orthogonal rotation were completely appropriate then a symmetrical matrix will appear.

Component Transformation Matrix

Component	1	2	3	4	5	6
1	.977	-.025	.081	.108	-.026	.159
2	-.003	-.163	.807	-.539	.179	-.024
3	-.030	.688	-.037	-.105	.540	.470
4	-.138	-.584	.113	.476	.447	.448
5	-.158	.248	.419	.319	-.644	.471
6	.010	.310	.391	.599	.248	-.575

*Extraction Method: Principal Component Analysis.*

*Rotation Method: Varimax with Kaiser Normalization.*

The table of summary shows the factor loadings of each and every variable on the related factor. The table of summary indicates the percentage of variance explained by each of factor. It is depicted from the table

that first factor is explain the major percentage of the variance. The six factors are explaining in total maximum variance. The above table also shows the eigen values for each factor that is more than 1.

Summary of Exploratory Factor Analysis results for the questionnaire having 25 items related to the consumer psychographic

Items	Personal values	Work values	Social interest	General attitude for life	Prudent	Brand conspicuous
I feel secure because of current economic situation.		0.844				
I respect authority.		0.833				
I will consider product value when I buy it.						0.801
I spend a constant amount of money every month.					0.924	
I usually buy well-known brands.						0.807
I like a routine life.				0.931		
I do not like to take risks.				0.933		
I will think things over before I buy a product.						0.732
I am emotional.	0.69					
I can usually achieve my goals.		0.821				
I like to buy something that can express my status						0.830
I often care about others.	0.852					
I have a lot of friends.	0.809					
I like to go for shopping.					0.905	
I usually go for cinema.					0.908	
I always ready for debates on public issues.			0.664			
I keep my eye on current affairs.			0.623			
I am influenced by social media.			0.587			
I am interested in national events.			0.875			
I always care for my family health in every sense.	0.752					
My work emotion will not affect my family.		0.806				
I look life as a challenge.				0.928		
I love to talk with friends.	0.821					
I like to help others.	0.854					
I usually participate in social activities.			0.880			
<b>Eigenvalues</b>	<b>3.92</b>	<b>2.99</b>	<b>2.90</b>	<b>2.78</b>	<b>2.29</b>	<b>2.27</b>
<b>% of variance</b>	<b>15.69</b>	<b>11.94</b>	<b>11.61</b>	<b>11.13</b>	<b>9.17</b>	<b>9.07</b>
<b>Croanbach <math>\alpha</math> (Reliability)</b>	<b>0.887</b>	<b>0.847</b>	<b>0.783</b>	<b>0.927</b>	<b>0.908</b>	<b>0.807</b>

*Sub scales:*

1. Sub scale1(Personal Values Scale) – Items 9,12,13,20,23,24
2. Sub scale 2 (Work Values) - items 1,2, 10,21
3. Sub Scale 3 (social interest) – items 16,17,18,19,25
4. Sub scale 4 (general attitude for life) – 6,7,22
5. Sub scale 5 (prudent) – 4, 14,15
6. Sub Scale 6 (Brand Conspicuous) – 3,5,8,11

*For Scale of personal Value Scale:**For Scale of Social Interest:*

Inter-Item Correlation Matrix for personal values

	s9	s12	s13	s20	s23	s24
s9	1.000	.500	.470	.506	.466	.502
s12	.500	1.000	.488	.575	.510	.970
s13	.470	.488	1.000	.493	.920	.498
s20	.506	.575	.493	1.000	.509	.570
s23	.466	.510	.920	.509	1.000	.515
s24	.502	.970	.498	.570	.515	1.000

Item-Total Statistics for personal values

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s9	20.24	15.220	.591	.358	.884
s12	20.17	14.857	.758	.941	.855
s13	20.33	14.883	.713	.849	.862
s20	20.09	15.589	.650	.430	.873
s23	20.35	14.851	.728	.853	.860
s24	20.17	14.858	.762	.941	.855

Reliability Statistics for scale of Personal Values

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.887	6

Sub-scale of personal values is having 6 items and reliability is above 0.7. Personal value scale's items are correlated with each other and the table no. shows that correlations are above 0.3. Table of reliability shows

that overall value of alfa if the item deleted but none of the items would increase the reliability if they were deleted.

*For Scale of Social Interest:*

Inter-Item Correlation Matrix for social interest

	s16	s17	s18	s19	s25
s16	1.000	.367	.348	.399	.409
s17	.367	1.000	.386	.336	.338
s18	.348	.386	1.000	.323	.328
s19	.399	.336	.323	1.000	.960
s25	.409	.338	.328	.960	1.000

*Item-Total Statistics for scale of social interest*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s16	14.57	14.442	.498	.252	.763
s17	14.40	15.157	.463	.234	.772
s18	14.66	15.202	.447	.219	.778
s19	14.38	13.279	.697	.923	.695
s25	14.41	13.194	.704	.924	.692

*Reliability Statistics for scale of social interest*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.783	.783	5

Now the sub-scale of social interest is having five items and each item is contributing positively to the scale. No item is to be deleted

*For Scale of Work Values:*

*Inter-Item Correlation Matrix of work values*

	S1	S2	S3	S4
S1	1.00	0.585	0.624	0.561
S2	0.585	1.00	0.601	0.541
S3	0.634	0.601	1.00	0.571
S4	0.561	0.541	0.571	1.00

*Item-Total Statistics for scale of work values*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s1	10.56	7.896	.699	.490	.800
s2	10.15	8.663	.678	.461	.808
s10	10.21	8.410	.712	.508	.793
s21	10.90	8.960	.650	.423	.819

*Reliability Statistics for work values*

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.846	.847	4

Above table of correlation and scale statistics are showing that each and every item is equally important in the scale of work value.

*For Scale of Brand conspicuous:*

*Inter-Item Correlation Matrix for brand conspicuous*

	s3	s5	s8	s11
s3	1.000	.529	.454	.561
s5	.529	1.000	.453	.586
s8	.454	.453	1.000	.479
s11	.561	.586	.479	1.000

*Item-Total Statistics for brand conspicuous*

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s3	12.27	5.183	.628	.400	.754
s5	12.29	4.913	.641	.421	.748

s8	12.26	5.405	.550	.303	.791
s11	12.23	5.035	.672	.457	.733

Reliability Statistics for scale of brand conspicuous

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.806	.807	4

The above tables are indicating that the scale of brand conspicuous is reliable. It means that this factor influence the consumers behavior.

*For Scale of General Attitude for Life:*

Inter-Item Correlation Matrix for general attitude for life

	s22	s6	s7
s22	1.000	.801	.812
s6	.801	1.000	.816
s7	.812	.816	1.000

Item-Total Statistics for scale of general attitude for life

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s22	6.02	6.338	.847	.717	.899
s6	6.02	7.075	.849	.722	.893
s7	6.08	7.082	.858	.736	.887

Reliability Statistics for general attitude for life

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.926	.927	3

The above table of correlation and inter items statistics state that the scale for general attitude for life is having the items positively contributing the scale. Each item is important to get an idea about the respondent's

attitude. The above tables are showing that the sub scale of general attitude is having items which are sufficiently correlated with each other and giving the result in the same direction.

*For Scale of Prudent:*

Inter-Item Correlation Matrix for prudent

	s4	s14	s15
s4	1.000	.782	.766
s14	.782	1.000	.753
s15	.766	.753	1.000

Item-Total Statistics for prudent

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
s4	7.05	5.339	.826	.684	.859
s14	6.90	5.982	.817	.669	.866
s15	7.01	5.940	.805	.648	.875

Reliability Statistics for prudent

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.907	.908	3

The above tables related to factor of prudent and general attitude for life are showing that the items are positively contributing in the scale. If any item deleted then the reliability will decrease. It means that six factors extracted from factor analysis are really influence the purchase decision of consumers.

*c) Psychographic segmentation through cluster analysis*

After defining the factors that are going to be used in the present study, it is necessary to define the segmentation technique. Firstly the purpose of segmentation is to be understand, segmentation is to link consumer characteristics with the brand preference. Here in the present study cluster analysis is used to segment the market. When conducting a cluster analysis, the first step is to define the variables on which the clustering will be based. Here in the study six factors were already defined on which basis market is to segmentation. The second step involves selecting an appropriate distance measure which is going to determine how similar or not the objects being clustered are. The most common measure is the Euclidean distance, which is the squared root of the sum of the squared differences in the values for each variable (Malhotra, 2009). The third step is selecting the cluster procedure. Clustering procedures can be hierarchical and nonhierarchical. The hierarchical is the most common procedure, and can be agglomerative or divisive. The divisive method starts with all respondents in one group, then it divide each respondent in a separate cluster. In the agglomerative method each respondent starts in a separate cluster. This last technique is very common in marketing research, and consist of linkage (single, complete, average), and variance (Wards, centroid) methods. The variance method seeks to generate clusters to minimize the within-cluster variance. In the Wards procedure, the means of the variables in each cluster are computed,

and for each object the squared Euclidean distance is calculated. The distances are summed for all objects and at each stage, the two clusters with the smallest increase in the overall sum of squares within cluster distance are combined (Malhotra, 2009).

Once the cluster procedure is defined, it is necessary to select the number of clusters require for study. In a hierarchical clustering, the distances between clusters can be used as criteria to select the number of clusters with the agglomeration schedule (in the column of coefficients, look for large increases between stages), another technique is using a dendrogram. In the present study four segments were identified. With the help of K-Mean cluster analysis characteristics of four identified clusters were discussed.

After defining six factors extracted from factor analysis the next step was to create segments based on those factors. Four clusters were identified based on the coefficients with large increase between stages, with the technique of dendrogram and centroides. The four clusters were distributed 11.3% of the sample, 23.8%, 6.5% and 58.5% of the sample.

Four clusters seem to be more meaningful than three and five cluster grouping. The interpretation for clusters was done after examined the clusters centroides. The centroides are the mean values of the objects contained in the cluster on each variable. The high values in each cluster were taken in to consideration.

Number of Cases in each Cluster

Cluster	1	45.000
	2	95.000
	3	26.000
	4	234.000
Total		400.000

Percentage size of each cluster in the population

Cluster No.	Percentage of population	Cumulative Percent
1	11.3	11.3
2	23.8	35.0
3	6.5	41.5
4	58.5	100.0
Total	100.0	

Final Cluster Centers

Psychographic Factors	Cluster			
	1	2	3	4
Personal Value	-1.17819	.36735	-2.24109	.32645
Work Values	.19294	.72001	-.45713	-.27862
Social Interest	.47100	-.75229	-.81941	.30589
General Attitude for Life	-.43606	-.27777	.13031	.18215
Prudent	-.90176	.11944	.42116	.07813
Brand Conspicuous	-.54337	-.68569	.34238	.34483

ANOVA for difference of clusters

	Cluster		Error		F	Sig.
	Mean Square	Df	Mean Square	Df		
Personal Value	76.936	3	.425	396	181.141	.000
Work Values	24.841	3	.819	396	30.317	.000
Social Interest	34.366	3	.747	396	45.992	.000
General Attitude for Life	8.030	3	.947	396	8.482	.000
Prudent	14.663	3	.896	396	16.355	.000
Brand Conspicuous	29.608	3	.783	396	37.801	.000

The above table of ANOVA shows that four clusters are significantly different from each other for every factor. The ANOVA show the results at 95% level of confidence and P- Value is < 0.05. It means that all four clusters are significantly different from each other for every psychographic factor.

*Description Of Clusters:*

Gender \* Income for cluster 1

Cluster Number				Income			Total
				up to 3,50,000	3,50,000-6,50,000	above 6,50,000	
1	Gender	Male	Count	5	12	3	20
			% within Income	38.5%	52.2%	33.3%	44.4%
		Female	Count	8	11	6	25
			% within Income	61.5%	47.8%	66.7%	55.6%
	Total		Count	13	23	9	45
			% within Income	100.0%	100.0%	100.0%	100.0%

Gender \* Age for cluster 1

Cluster Number				Age			Total
				18-35	36-45	above 45	
1	Gender	Male	Count	10	6	4	20
			% of Total	22.2%	13.3%	8.9%	44.4%
		Female	Count	5	13	7	25
			% of Total	11.1%	28.9%	15.6%	55.6%
	Total		Count	15	19	11	45
			% of Total	33.3%	42.2%	24.4%	100.0%

**Cluster 1** is 11.3% of the population (N= 45). This cluster is having 25 female and 20 male that means the cluster is dominating by female. The middle age group of 36-45 is higher than the other groups in this segment. Middle income group is dominating the segment. The cluster 1 is the group which has the individuals those who are socially very active as well as

who are socially very active as well as work values are also high. It means cluster 1 is having female of age 36-45 lying in the income group of 3,50,000 to 6, 50,000 and these women are socially active and energetic working women. This type of consumers needs the special products which can support their living personalities.

Gender \*Income for cluster 2

Gender	Male	Count	17	20	14	51
		% within Income	68.0%	47.6%	50.0%	53.7%
	Female	Count	8	22	14	44
		% within Income	32.0%	52.4%	50.0%	46.3%
Total		Count	25	42	28	95
		% within Income	100.0%	100.0%	100.0%	100.0%

Gender \*Age for cluster 2

Gender	Male	Count	16	27	8	51
		% of Total	16.8%	28.4%	8.4%	53.7%
	Female	Count	21	14	9	44
		% of Total	22.1%	14.7%	9.5%	46.3%
Total		Count	37	41	17	95
		% of Total	38.9%	43.2%	17.9%	100.0%

**Cluster 2** is male dominating cluster with 23.8 % of the total consumers respondents (N= 95). This cluster is quite young and initial career starter consumers groups (N=78 Of the consumers below age of 45). This cluster is having the young and fashionable consumers those who are prudent and spend thrift as well as they are emotional due to the age factor and devoted towards their work. The cluster is basically

consist the consumers who are getting good income , young and want to spend money but do not have any specification of brands. Usually personal care products are purchased by this group more as a trial bases because these are not brand loyal. Cluster 2 is a group of young, active, enthusiastic and emotional male and female.

Gender \*Income cluster 3

Gender	Male	Count	3	8	4	15
		% within Income	42.9%	61.5%	66.7%	57.7%
	Female	Count	4	5	2	11
		% within Income	57.1%	38.5%	33.3%	42.3%
Total		Count	7	13	6	26
		% within Income	100.0%	100.0%	100.0%	100.0%

Gender \*Age for cluster 3

Gender	Male	Count	6	4	5	15
		% of Total	23.1%	15.4%	19.2%	57.7%
	Female	Count	5	4	2	11
		% of Total	19.2%	15.4%	7.7%	42.3%
Total		Count	11	8	7	26
		% of Total	42.3%	30.8%	26.9%	100.0%

**Cluster 3** is the smallest cluster of the population (N=26) and only 6.5% of the population. This cluster is having highest number of male i.e 57.7%. This cluster is having more male with age 18-35 and the income of the cluster is also low. The consumers of this

cluster are of different nature they are having positive attitude towards life as they are young, ready to take risks. The cluster is dominated by the persons those who are spend thrift and brand conscious. This cluster is formed with the individuals those who are free from

emotions and not serious about the work they but they like to spend money and want to attain a status. This segment tends to be of lower income, which makes

sense being the younger age group is more likely to make a lower income.

Gender \*Income for cluster 4

Gender	Male	Count	43	52	36	131
		% within Income	60.6%	51.0%	59.0%	56.0%
	Female	Count	28	50	25	103
		% within Income	39.4%	49.0%	41.0%	44.0%
Total		Count	71	102	61	234
		% within Income	100.0%	100.0%	100.0%	100.0%

Gender \*Age for cluster 4

Gender	Male	Count	47	55	29	131
		% of Total	20.1%	23.5%	12.4%	56.0%
	Female	Count	32	48	23	103
		% of Total	13.7%	20.5%	9.8%	44.0%
Total		Count	79	103	52	234
		% of Total	33.8%	44.0%	22.2%	100.0%

The **cluster 4** is the largest cluster with 55.8% of the consumer respondents (N= 234). This cluster is also dominating by male, middle aged and middle income group. This cluster consist the individuals those who are not serious about their work but talk about public issues, emotional, extravagant, want to show off. The cluster 4 is having the different personality characteristics which make a person to buy more and branded products but related to their emotion.

*The clusters were labeled according to the characteristics of the cluster. As cluster 1 was labeled as the doers, cluster 2 as the nurtures, cluster 3 as the mechanics and the fourth cluster was labeled as the reformers.*

#### d) Factors differences among clusters

All four clusters are significantly different from each other in the six factors of human psycho. The factor of personal values is having positive mean score in cluster 2 and cluster 3. The factor of work values is positive in cluster1 and cluster 2. Cluster 1 and cluster 4 are having social interest common where as cluster 3 and cluster 4 are influenced by general attitude of life factor. The cluster 2, cluster 3 and cluster 4 are of prudent and brand conspicuous. Cluster 1 is of more work oriented as well as socially active kind of individuals as work values average for cluster 1 is 0.471 and social interest average is 0.192. cluster 2 is a emotional work oriented and spend thrift group of individual. The score of personal values is 0.36, score of work value is 0.72 and score of prudent is 0.11. the cluster 3 is having prudent score maximum it means this group is having the individual those who love to shop and outings. This cluster is a group of persons with positive attitude and those who want to maintain the

status by branded products. Cluster 4 is different from all other because it is group of those who are not work oriented but still positive towards life and want to spend for branded product and even they are emotional it means this group is a group of arrogant type of personalities.

## V. CONCLUSION

To sum up of the present study it may be said that now a day's people are not bounded with the demographics they are more driven by their psychographic variable and personality. As the present study showed that the different clusters of population are not significantly differently for gender, age and income. It means that the old assumption of demographic segmentation is no true but still companies do believe in demographic segmentation which may not give good results as psychographic segmentation can give. The main reason behind this is that the human behavior like purchase behavior is driven by the internal psycho of human being. People behave according to the internal personality. The result showed that the six factors that influence the purchase behavior of consumers and segments were based on the six psychographic factors. The study states that Indian market do consist four different type of psychographic cluster which may prove to be good information for the marketers.

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## Determinants of Relationship Marketing: The Case of Ethiopian Airlines

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**Abstract-** Ethiopian Airlines is one of the most successful organizations in Ethiopia; however, there is virtually no formidable data on determinants of relationship marketing. Therefore, the objective of this study is to assess the determinants of relationship marketing on overall relationship quality of Ethiopian Airlines. The study employed both quantitative and qualitative study approaches. Both domestic and international flight clients, who fly Ethiopian during the study periods, were respondents for the five Likert scale survey questionnaire. Semi-structured key informant interview was also conducted with employees of the organization. As the theory predicts, this study also confirms that conflict handling is the first strong contributor followed by commitment, communication, and trust. In addition to this, descriptive and interview results show that the airline relationship quality is good; sociable; and show good hospitality. While the airline is generally successful in maintaining quality relationship with its clients, certain problems such as poor conflict handling, unequal customer treatment, and delays in informing flight schedule changes require attention.

**Keywords:** *relationship marketing, antecedents, ethiopian airlines.*

**GJMBR-E Classification :** *JEL Code: M19, M30*



*Strictly as per the compliance and regulations of:*



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## I. INTRODUCTION

Building relationships is how you relate to and communicate with people. Relationships with others have been used from time immemorial to cope with the complexity of everyday life. Relationship marketing is one of the oldest and yet the least understood approaches to marketing (Morgan & Hunt, 1994). It is a broad topic and many scholars and researchers have approached it from different perspectives. It is becoming one of those fashionable concepts that every marketer and manager uses (Morgan & Hunt, 2007).

Ganesan (1994) states that relationship marketing practice is different from transactional marketing practice as transactional exchange has a distinct beginning, short duration, and sharp ending by performance, whereas relational exchanges commences with traces to previous agreements, has longer duration, and reflects an ongoing process. In relationship marketing the solution is the relationship itself but in transactional the solution is the product in the form of physical goods and service.

Relationship marketing is more applicable especially for service provider organization like Ethiopian

airlines; it is process consumption than outcome consumption. So, the consumer perceives the service production process as part of the service consumption and not only the outcome of a process as a traditional consumer. In addition, service by its nature, is less tangible, less consistent and more perishable, and customer and seller are more involved in the production as well as consumption of service. Thus, providing customized service and personal communications are highly needed especially in today's volatile environment (Varki and Wong (2003).

The dimensions of relationship quality vary according to the study setting. Constructs of relationship quality is a combination of trust, commitment, communication, conflict handling, and satisfaction, goal congress, investment and profit (Naudé & Buttle, 2000). However, according to the findings of different scholars, each determinant's magnitude on the relationship quality of the organizations is different (Palmatier et al. ,2006), (Ndubisi, 2007), (Jela and Alwieie, 2010b), and Negi ,2010) So in this study I am interested to investigate the degree of the impact of each of the determinants quality of customer relationship in an Ethiopian service providing company, Ethiopian airlines. The rest of the paper is organized as follows. A First the research problem, objective of the study and review of previous researches are presented independently. This is followed by theory and hypotheses, and a short description of the methodology is presented. Finally results are discussed and conclusion and recommendations are forwarded.

## II. STATEMENT OF THE PROBLEM

Studies in service marketing have not reached a consensus in identifying the main determinants of maintaining quality customer relations. For instance, Palmatier et al. (2006) find that relationship marketing antecedents have a wide range of effectiveness for generating strong relationships with customers, and communication is the most effective relationship building strategy. It sets the ground and expectation of clients that will be the basis for their satisfaction. In the contrary, poor communication or conflict that arises due to some other reason has a larger negative effect than the positive impact of any relationship marketing antecedents. So, all proactive relationship marketing effort may be wasted if customer conflict is left

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unresolved. Similar study has been conducted by Ndubisi (2007) and he states that trust contributes more significantly than conflict handling commitment, communication respectively to the overall relationship quality. Hence, as the study shows, when building relationship quality is the goal, trust is an appropriate starting point, followed by good conflict resolution, commitment and communication.

In the contrary, Ndubisi (2007), Jela and Alwieie (2010b) point out that commitment is the most important dimension of relationship quality. To have a good relationship quality, service providers should be committed to relationship quality activities as well as to their customers. If only one party tries to develop it without soliciting cooperation from the other party, good relationship quality will not occur. Moreover, Negi (2010) study on Ethiopian Telecommunication Corporation states that conflict handling is among the highest contributors for the quality of Ethiopian Telecommunication Corporation (ETC) customer relationship, followed by trust, commitment and communication.

Despite the relevance quality firm-customer relationship s to any service providing company and especially for those companies that operate in a global scale, we have very limited studies to date about customer relationship quality in Ethiopia. Taking the largest and the most global Ethiopia Service Company, this study focuses of assessing the relationship marketing of Ethiopian Airlines with customer. The researcher designed the following two basic research questions. Do the words and actions of the firm contribute to firm-customer relationship quality? Is there any significant difference in their level of contributions? For instance, do trust, commitment, communication, and conflict handling contribute equally or differently to relationship quality of the airlines?

Several studies have also been conducted, as well, to identify determinants' magnitude on relationship quality in various developed countries. However, they could result in dissimilar conclusions. Moreover, to date, there are few studies that include all key relationship antecedents such as communication, commitment, trust, conflict handling in developing countries context. Again, no such study has been conducted empirically in Ethiopian airlines exclusively focused on determinants of relationship quality. This study, therefore, assess the determinants of relationship marketing on overall relationship quality of Ethiopian airlines.

### III. OBJECTIVES OF THE STUDY

The main objective of the study to investigate the determinants of relationship marketing on overall relationship quality of Ethiopian airlines.

## IV. LITERATURE REVIEW

This section of the study discusses the literature focuses on the overview of relationship marketing determinants and the empirical studies on determinants of relationship quality.

### a) Overview of Relation Marketing

In today's volatile environment the working condition for any businesses are very challenging due to ever-growing competition, the continuous increase in customer expectation and customers' subsequent demands as service improves (Kotler, 2003). Moreover, customers are becoming increasingly critical about the quality of service they experience. These reasons seems to force organizations to practice relationship marketing by adopting proactive strategies which will assist them to take the lead in the marketplace Shani and Chalasani,1992). Because relationship marketing helps the organization to have an integrated effort to identify, maintain, and build up a network with individual consumers and continuously strengthen their relation with contact over a long period of time.

Specially, in today's world, businesses are increasingly dependent on the relationship they have with their suppliers and are demanding that they adhere to high standard. The effectiveness of customer-employee relationship has been recognized as being critical for service sectors. In this regard Varki and Wong (2003) examined the role as well as the expected benefits of voluntary involvement of consumers with various service providers and found that consumers might be more interested in service providers whose services they perceived to be more involving (Varki and Wong, 2003).

### b) Empirical Studies on: Determinants of Relationship Quality

When companies want to practice relationship marketing, they should know its determinants' impact or contributions for the presence of having good relation with client like commitment, trust, conflict handling, communication, etc., and their relation among them. Because various researchers proves it for instance Hsieh and Hiang (2004.), and Auh (2005) relationship between customer and service employee has a positive impact for the presence of relationship quality of the organization since employees' social skills and their motivation for the work exert a strong influence on satisfaction with customers.

Moreover, various researchers Jela and Alwieie (2010 b), Ndubisi (2007) and Negi (2010) and Narus (1990) have also assessed and showed each determinant has different degree of contribution in developing relationship quality of the organization. For example Jela and Alwieie (2010b) point out that commitment is the first and trust the last contributors of relationship quality. This means that to develop a good relationship quality,

service providers should be committed enough and develops excellent cooperation with customers. Ultimately, they can bring good relationship quality. Based on the above justification, the researcher forward the following hypothesis:

*H1:* Commitment maintains significant positive contribution to firm-customer relationship quality.

Again, Ndubisi (2007), and Negi, (2010), have assessed relationship quality with similar variables in the case of Banks of Malaysia and Ethiopian telecommunications respectively. In their study conflict handling is an important relationship builder. Since it is difficult to achieve perfect service all the time, it is better to have problem solving strategy like reactive and proactive. Therefore, organization should identify that factors that drive a customer to the competitor may not be occurrence of a problem per se, but how the problem was handled. A major problem that is resolved satisfactorily may leave in its wake a happy and loyal customer, but a minor issue that is not solved carefully could result in problems. These efforts would bring about better relationship quality with customers. Based on the aforementioned information, I can hypothesis that:

*H2:* Keeping conflict handling has a significantly positive contribution to firm-customer relationship quality of Ethiopian Airlines.

Contrary to this, Ndubisi (2007), also states that trust which contributes most significantly than commitment, communication and conflict handling to overall relationship quality. When identifying relationship quality as a goal, trust is an appropriate starting point, followed by good conflict resolution, commitment and communication. Based on the above justification the researcher states the following hypothesis:

*H3:* Maintaining and developing trust has a significantly positive contribution to firm-customer relation quality.

Similarly research has been done by Anderson and Narus (1990), Ndubisi and Chan (2005) with similar variables of relationship marketing. However, they reach at dissimilar conclusion and they indicate that communication is a prerequisite for building trust among exchange partners since it is a means of providing information on service; fulfilling their promises; and providing information if delivery problem occurs. Therefore, it is the communicator's task to build awareness, build consumer preference by promoting quality, value, performance and other features, convince interested buyers, and encourage them to make the purchase decision.

This implies that communication also keeps dissatisfied customer informed about what the organization is doing to rectify the source of dissatisfaction. Similarly, Gronroos (2004), states that communication should be arranged in a whole process,

i.e., before, during and after service delivery. Based on the above reasoning it is possible to hypothesize that

*H4:* Upholding communication skills has a significant positive contribution to firm-customer relationship quality.

## V. RESEARCH DESIGN AND METHODOLOGY

A cross- sectional survey was selected for this study because it is easy to undertake when compared to longitudinal survey and the result from the sample can be inferred to the larger population. In addition, some extraneous factors could have manifested in the observed change other than the variable of interest (Akinyele, and Samuel, 2010). The study population was the employees and customers of Ethiopian airlines. From this population, a sample was drawn from customers who are vesting one of the three ticket offices of Ethiopian airlines in Addis Ababa, Namely, Helton, National and Piasa. The sampling locations were chosen by employing stratification, purposive and simple random sampling respectively.

The total sample size for the study was 422 and the data were collected until this predetermined sample size is reached. The primary data for the study was collected through survey method by using the standardized structured self-administered questionnaires from the customer and interview were takes place from the top management of the airlines. Questionnaires were composed of both open and closed ended. Closed ended questionnaire with five-point Likert type scale, ranging from` both extremes that is 1 as 'strongly disagree' to 5 'strongly agree' were prepared in English, and were translated to local language accordingly to increase the quality of the tools.

The questionnaire items were adapted from different sources. Communication four items were adapted from Ndubisi (2007) and Palmatier etal. (2006), conflict handling four items from Negi (2010) and Morgan and Hunt (1994), trust seven items from Negi (2010), commitment three items from Morgan and Hunt (1994), finally relationship quality four items from Ndubisi (2007) and Morgan and Hunt (19940).

Data was checked d for consistency and completeness on daily basis then data was coded, checked, and entered to computer. Finally, it has been processed and analyzed by Statistical Package for Social Sciences (SPSS) version 15 for windows. To analysis the data, different kinds of statistical methods including descriptive statistics like percentage and inferential statistics (correlation and multiple regressions) were used.

## VI. FINDINGS OF THE STUDY

This section of the study focuses on the descriptive and inferential statistical results.

a) Here Table .2 and table 3

As a description of the respondents show, table.1 , the majority of the respondents, 72%, are between the age of 19-40, with educational background of a bachelor's degree or above and have an income range of either below 3000 or above 5000. Moreover, both customers of Ethiopian and foreign nationals are well represented in sample. Table2. Also shows that conflict handling is highly ranked as the most important determinant followed by trust and commitment. Interestingly, however, conflict handling is also the least ranked as a determinant of relationship quality. These results are confirmed by the regression results in table 3. As it is shown from table 3, all the variables have positive and significant contributions for relationship quality of Ethiopian airlines.

Therefore, there is enough information in table 3, to support the four hypotheses H1, H2, H3, and H4 and there is significant relationship (0.1 percent significance level) between determinants (trust, conflict handling, commitment, communication) and relationship quality. Besides, the positive sign of the estimates show that the higher the level of trust, the more committed the employees are, and the greater the ability of the employees to handle conflicts, the better the satisfaction of the customers of the airlines, and finally the higher quality relationship of the airlines.

*Hypothesis one:* Keeping conflict handling has a significantly positive contribution to firm-customer relationship quality of the airlines. This hypothesis correlated two variables: conflict handling and relationship quality in testing hypothesis one. The finding showed a significant positive relationship between these two variables.

The findings of this study also supported the results of other previous studies and result corroborate Ndubisi (2007), Negi (2010) and Palmatier et.al. (2006). In addition to this, the findings of the descriptive statistics revealed that all in all, the study participants valued conflict handling of employees of the organization positively in such a way that more than 48% of the respondents valued conflict handling of the staff as good and above. However, 31% of the respondents valued it as poor. So, the problem seems to be very much conspicuous. Therefore, Ethiopian airlines should give higher value for conflict handling methods of the staff to be selective in the eye of the customers.

*Hypothesis two:* Commitment maintains significant positive contribution to firm-customer relationship quality of the Ethiopian airlines. The second strongest and positive contributor for the presence of relationship quality of the airline is commitment.

Therefore, this research results is similar with the finding of Ndubisi (2007), Jela and Alwieie (2010b)

and Mowday et al., (1982) however, the level or degree of contribution each is different.

Moreover, the findings of the descriptive statistics revealed that all in all, the study participants valued commitment of employees of the organization positively in such a way that more than 60% of the respondents valued commitment of the staff as good and above. To the opposite, 27 %, of the respondents valued it poor. To get the reciprocity benefit, the airline should be committed towards serving its customers.

*Hypothesis three:* Upholding communication skills has a significant positive contribution to firm-customer relationship quality. In this study the third significant and positive contributor of relationship quality of the airlines is communication. The result is also similar with Anderson and Narus (1990), Ndubisi , Chan (2005) and Gronroos (2004). However its magnitude is still different.

Moreover, the descriptive results show that 49% of the respondents valued communication skills of employees as good and above. In the contrary, 34.5% of the respondents evaluated it poor. This shows that the communications skills of the employees are far from perfection. Therefore, they have to work hard to improve the communication skill of the staff for the sake of creating special and unique feeling on the customers.

*Hypothesis four:* Maintaining and developing trust has a significantly positive contribution to firm-customer relation quality. The last positive and significant contributor of relationship quality is trust. The result of this determinate is also exactly similar with finding of, Jela and Alwieie (2010b).

However, its magnitude is different with the finding of Ndubisi (2007), Anderson and Narus(1990), Chan (2005) and Gronroos (2004). In addition, about 54% of the study participants evaluated the degree of trustworthiness of employees of the organization as good or above. However, still, there is formidable proportion of customers who were not happy with the degree of trustworthiness of employees showing that the Ethiopian has to address this gap of employees' behavior as well.

Generally, the investigation made on the determinants of relationship marketing by various researchers at different periods did not show consistency in their degree of contribution. For instance, Jela and Alwieie (2010b) indicated that commitment has a great influence on relationship quality, whereas, trust has the least contribution for the existence of relationship quality than conflict handling and communications. In the contrary, Ndubisi (2007) and Negi (2010) conducted research in the case of Malaysian retail banking and Ethiopian telecommunication respectively and find that conflict handling is

the starting point to have good relationship quality of the organization

To sum up, the findings of this study, conflict handling and trust for this study are in line with the findings of Negi (2010) and Jela and Alwieie (2010b) respectively. However, the contribution of other determinants is quite different. These differences may be partly explained by the following factors:

1. Characteristics of study participants
2. Methodology of data analysis
3. The difference in the sectors in which the studies were conducted
4. The different social and cultural contexts beyond the industry that differs across countries

For example, in this study 80% of the respondents were degree holders and above, more than 46% of them earned more than 5000 ETB, and more than 40% of the study participants were foreigners.

These background characteristics of study participants may impact on their perception as well as their expectations while they evaluate the employees of Ethiopian Airlines relationships. This in turn will cause differences in findings of studies. Concerning methodology, besides multiple regressions (this study exclusively used), different senior researchers applied factor analysis to identify the relationship determinants contribution on quality relationship of different organizations.

In addition to the regression analysis and descriptive result insights from responses to the open ended questions about the general interactions of employees with customers of Ethiopian airlines seem to suggest two contrasting judgments for and against the quality of customers' relationship in this company.

Majority of the customers were in favor of Ethiopian airlines and suggested that employees provide a welcoming response; Ethiopian Airlines is the center of excellence for service exchange, there is good hospitality, employees are very much friendly and sociable to handle customer relationship starting from getting ticket up to final destinations, especially for international service.

In contrary to this, some of the customers respond that domestic passenger's relationship has many problems such as: lack of respect, lack of cooperativeness, delays, loss of passenger's bag, lack of flexibility, belt problems, and update customers at the time of flight delays or cancellations. Moreover, discriminations between foreign customers and Ethiopian are big problems in both international and domestic flight.

To triangulate the survey result interview were done with key informant employees of the airlines. *Since the Ethiopian airlines (EAL) is an international organization, it faces a number of challenges from the competitors regionally in Africa and globally.*

*So to keep its successful position in the sector, to keep on improving its service than before, to be a first choice for the clients and maintain its , it has designed 20/25 years of strategic planning and making the domestic service independent from the international service and leaving it for self-decision. Besides, EAL has different means of checking whether employees are trusted, committed to their responsibility as well as for their customers by conducting audit, and monitoring each employee's daily activities by the delegated bodies of the airlines. Moreover, -, Key performance indicators (KPI) is the other means of checking whether employees are behaving in line with the airlines value of „customer is a king“. In addition to this, the airlines provide training program and giving continuous training for these lower performer as well as new employees to make the service more attractive than before.*

*To motivate and satisfy the customer, the airline used different means of promotional practice such as Sheba Miles (getting extra baggage allowance, simple for reservation, free ticket, and bonus) and giving discount for upgrading and encouraging the firm-customer relationship quality. The airlines also conducted survey on from the international customers and analyzed it semiannually and quarterly'.*

To sum up, with its unprecedented devotion to expand and grow as leading airline both in the continent and worldwide, the management of the airline is working towards increasing its competitiveness by upgrading its employees skills, promote their commitment and at the same time tracking the customers response periodically to head towards its vision successfully. To the extent that employees are the images of the airlines with whom customers interact, the research result shows that all in all employees are very much friendly and sociable and center of excellence especially in Africa.. However, there are two main problems that remain unresolved. This is problems of discriminations between foreigners and Ethiopians, and problems of domestic flight services. Based on the interview results the problems of domestic flight service were already recognized and the airline is ready to solve this by designing a 20/25 years strategic planning, but the problems of discrimination is still not recognized by the airline even if it conducts survey quarterly and semi- annually.

## VII. CONCLUSIONS IMPLICATION AND RECOMMENDATION

The aim of the paper is to assess the determinants (trust, conflict handling, commitment, communication and) of relationship marketing on overall relationship quality of Ethiopian airlines. This study is undertaken within the Ethiopian context while using data collected from 341 both foreign and domestic clients of the Ethiopian airlines.

Generally the key importance of this study is:

- the presentation of the significant impact of the determinants of relationship marketing namely trust, commitment, communication, and conflict handling on relationship quality; and
- The different contributions of the determinants' of relationship marketing relationship quality of the airlines.

Determinants of the relationship marketing in this study have positive and significant contribution for firm-customer relationship quality of the Ethiopian airlines and the magnitude of their contribution for relationship quality is also different. For instance in this study conflict handling is the first and highest contributor for the existence of relationship quality for EAL's followed by commitment, communication and trust. This research has some implications on customer relationship management by service provider organization like Ethiopian airlines. The results indicate that it is at the best interest of the airline to assure whether employees are open and honest with customers, whether employees are willing to help customers, whether employees fulfilled its promises for the customers, whether employees could discharge their obligations, whether they could provide a consistent service to the customers, whether employees are very concerned with providing secure service to customers and whether employees paid respect to customers for the sake of satisfying customer and ultimately achieving relationship quality of the airlines.

An Ethiopian airline is competent enough in its relationship quality. The relationship quality is good; employees provide a welcoming response; it is center of excellence for service exchange, there is good hospitality, employees are very much friendly and sociable to handle customer relationship starting from getting ticket up to final destinations, especially for international service.

Therefore, the managerial implication of the study for Ethiopian airlines is they have to give a due attention at the time of hiring and training of new as well as the existing employees. If so, it will be possible for the Ethiopia airlines to keep its current position in the market and realize its goal of being a competent airline beyond Africa, in the globe.

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*Table 1 :* Characteristics of the Respondents

Variable	Variable categories	Frequency	Percentages
Sex	Male	248	72.7
	Female	93	27.3
Age	19-29	105	30.8
	30-40	141	41.3
	41-51	78	22.9
	52-62	15	4.4
	>0r =63	2	0.6
Educational Background	Grade 12 complete	16	4.7
	Diploma holder	49	14.3
	Degree holder	167	49.0
	Masters holder	93	27.3
	PhD and above	16	4.7
Monthly income	1500-3000	114	33.43
	3001-5000	69	20.2
	>5000	158	46.37
Nationality	Ethiopian	202	59.24
	Foreigners	139	40.76

*Table 2 :* Determinants of Relationship Marketing

Key determinants of relationship marketing (independent variable.)	Strongly agree %	Agree%	Neutral%	Disagree%	Strongly disagree%
1. Commitment	22.58	37.58	12.9	10.26	17.72
2. Trust	23.17,	30.79	25.81	12.9	7.33
3. Communication	17.01	31.6	16.72	14.06	20.53
4. Conflict handling	26.98,	20.82	20.53	10.85	20.5
<i>Dependent variables</i>					
5. Relationship quality	21	33.7	23.7	14.96	6.55

*Table 3:* Predictors of relationship quality

Variables	Standardize Beta Coefficient	t-value	p-value
Commitment	0.203	11.256	0.000
Trust	0.190	8.548	0.000
Conflict handling	0.229	12.752	0.000
Communication	0.210	11.295	0.000

**Note:**  $R^2 = 0.85$ ;  $\text{Adj } R^2 = 0.82$ ;  $\text{Prob}(F) = 0.0000$

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# Organizational Change Mishaps Inspires the Entrepreneurship Spirit

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**Abstract-** The purpose of this paper is to examine organizational change initiatives that have led to misleading job expectations. Due to scarce resources, employees are overwhelmed with unrealistic work expectations, which have led to job dissatisfaction in the workplace. Unfortunately, employees are unable to make swift career changes which eventually lead to frustration. In so doing, with limited resources, the average individual can be a part of the Multi-Level Marketing (MLM) industry that has experienced financial growth throughout the years despite the economic recession. At the end, a determination will conclude the legitimacy of the MLM industry and how it has made an impact on those who have reached financial freedom. Also, recommendations will be made to equip those who are interested in being part of the growing MLM industry.

**Keywords:** *directing selling, pyramid schemes, ethics multilevel marketing, organizational change, organizational development, entrepreneurship, social entrepreneurship.*

**GJMBR-E Classification :** *JEL Code: L26, D29*



*Strictly as per the compliance and regulations of:*



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**Keywords:** directing selling, pyramid schemes, ethics multilevel marketing, organizational change, organizational development, entrepreneurship, social entrepreneurship.

## I. INTRODUCTION

Due to increased competition and scarce resources, organizations throughout the United States continue to promote misguided organizational change. Employees are pushed to their limits

in an effort for the organization to stay competitive. As a result, the employees' work environment becomes toxic (Rivero, 2013). Unfortunately, the average American worker is limited by career choices/career mobility, which leads to job dissatisfaction. Consequently, the Multilevel Marketing (MLM) industry has become a popular choice for many Americans leading to entrepreneurship independence for some. This paper will evaluate Multilevel Marketing (MLM) industry and recommendations will be provided for those who are seeking entrepreneurship independence by means of the multilevel marketing industry.

## II. ORGANIZATIONAL CHANGE MISHAPS

Due to the competitive nature of organizations, organizations are being pushed to the outer limits in an effort to remain competitive in a global market. As such, organizational change initiatives continue to hit rock bottom with most deliverables not being achieved due to scarce resources and poor planning. In figure 1, Gilley, Gilley, & McMillan (2009) suggest that 60% of organizational change will not achieve success.

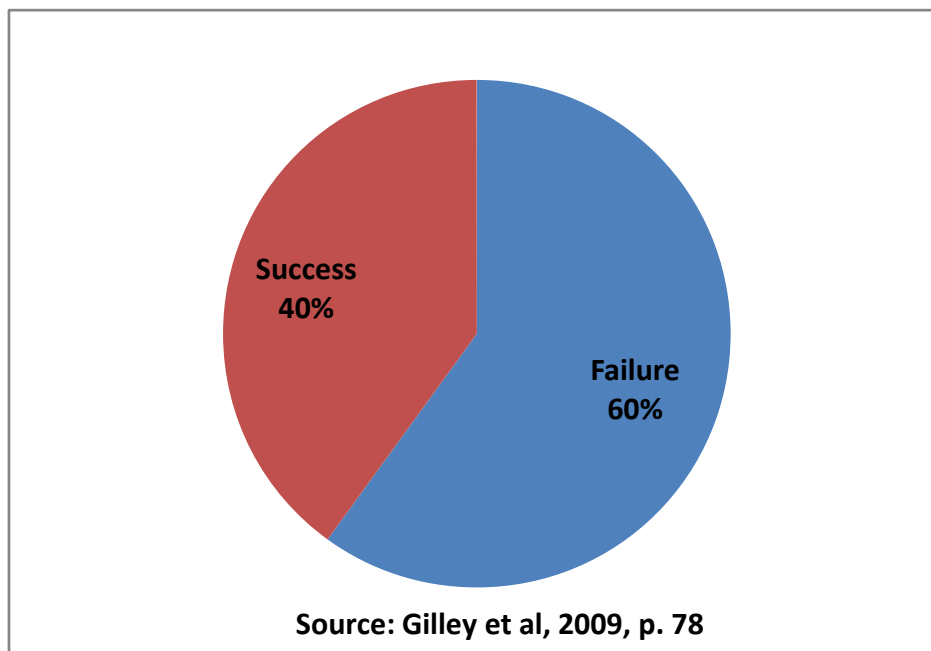


Figure 1 : Organizational Change Effectiveness

In so doing, as organizations strategize for the future, at times, the Humanistic Approach to management is lost. As a result, employees are mistreated in the workplace and are pushed to meet unreachable expectations. According to Rivero, "the Humanistic Approach to Management is much related to the commonly used humanism theory" (p.104).

Melé (2003) further suggests, "more specifically, humanism is usually conceived as an outlook to emphasizing common human needs and is concerned with human characteristics" (p. 79).

According to Rivero (2013), "...most layoffs were middle managers who worked alongside of line workers; other managers who remained behind were forced to do more with fewer resources, which made it difficult to accomplish day-to-day objectives" (p. 171). Unfortunately, managers develop a "siege mentality" behavior leading to the mistreatment of employees (Horstein, 1996). More specifically, managers are faced with the unfortunate dilemma of promoting deliverables that are unreachable.

Consequently, employees are faced with a difficult decision to either remain employed by a dysfunctional organization or perhaps take it upon themselves to retrain for a new career path. For many, the traditional method to complete a degree program/education initiative is unreachable due to the high tuition cost of most colleges/universities throughout the United States. Overall, there has been an uproar about the increased tuition rate among United States Colleges/Universities, which has had a drastic effect on university/college enrollment figures (Conger, 2014).

### III. ENTREPRENEURSHIP SPIRIT

From a traditional perspective, the term Entrepreneur is defined as "a person who starts or organizes a commercial enterprise, especially one involving financial risk" (Peredo and McLean, 2006, p. 56). Additionally, Bygrave and Hofer (1991) further state that an entrepreneur is "an individual who perceives an opportunity and partakes in the necessary functions, activities, and actions associated with the creation of an organization to pursue that opportunity" (p. 15). Moreover, the barriers of entry to establish a business ownership could be costly and unreachable for the average individual (Porter, 1985). Consequently, for certain individuals who have limited resources and training, Multilevel Marketing (MLM) can be the answer for promoting their Entrepreneurship Spirit due to the low overhead and risk free investment start-up (Albaum and Peterson, 2011).

### IV. MULTILEVEL MARKETING INDUSTRY – CAUSES AND EFFECTS

Perterson & Wotruba suggest that the "MLM is a form of direct selling. At an operational level, direct

selling is simply face-to-face selling away from a fixed retail, or a process of communication" (1996, p. 2.)

Sparks & Schenk (2001) further state that "Multi level marketing organizations (MLM) have long been an active part of the American business landscape. These networks of members-distributors, who earn income both from selling retail products and recruiting new members are enjoying remarkable growth" (p. 849).

Quite obviously, the success of each distributor is based on his/her efforts. For the most part, most legitimate MLM provide extensive training programs that include leadership development, public speaking, etc. (Peterson & Albaum, 2007, p. 318). Moreover, Coughlan and Grayson (1998) elaborate that "the essence of MLM involves the development of social networks that evolve into business alliances" (p. 425).

Undoubtedly, the phenomenal growth continues to evolve. According to the 2012 Direct Selling Statistics (2014) from the Direct Selling Association of the United States, Direct Retail Sales industry increased from \$29.87 billion in 2011 to \$31.63 billion in 2012. Another study also suggested that within a 12 month period Finland had reported that 25% of their population had purchased from a direct selling company. Within this same study, South Africa also reported that 72% of their population had purchased products from a direct selling company (Brodie et al., 2004, p. 7-8).

### V. PYRAMID ANALYSIS

The surge to join MLM continues to progress and limited academic research has been performed to support industry's achievements (Peterson & Albaum, 2007, p. 318). Unjustified remarks have been published by critics of MLM suggesting that 99.94 % of MLM lose their investment and eventually withdraw/abandon their membership (Taylor, 2005). On the other hand, according to Seale, (2007, p. 22), the United States Direct Selling Association suggested the average gross income for an MLM United States distributor stands at about \$14,500 annually. Based on this writer's perspectives, negative remarks suggesting that MLM have not met up to their expectations are posted by bloggers and are unsubstantiated.

Peterson and Albaum (2007) have established a pyramid test model to determine if the MLM is an illegal pyramid scheme by answering the following four questions

1. What is being sold – a product/service or the right to sell a product/service?
2. Is the fee for becoming a distributor fair and reasonable and what does a person receive for it from the company?
3. Is there pressure to purchase excess inventory?
4. Is there a provision for the MLM firm to buy back unsold inventory?

## VI. RECOMMENDATIONS – DAMAGE CONTROL MEASURES

The author of this article proposes the following recommendations for addressing potential MLM membership for those who are interested in becoming a distributor. They are as follows:

1. Utilize the Peterson and Albaum (2007) pyramid test model to determine if the MLM is an illegal pyramid scheme.
2. Prior to joining an MLM, set aside time to establish a network opportunity to expand an MLM organization.
3. Take advantage of MLM training and educational support systems. Weekly seminars are inexpensive and may cost as little as \$6.00 per seminar. It also is recommended to invest in literature in an effort to develop leadership abilities to influence others to pursue MLM business networking opportunities.
4. MLM is a long term investment and those who are patient will have a greater opportunity for success.

## VII. CONCLUSION

Corporate America continues to seek new ideas in order to remain competitive in their respective markets. At times, change initiatives are unrealistic. Studies have suggested that most organizational change initiatives do not succeed, which leads to organizational derailment. In the end, both employers and employees suffer in not meeting expectations leading to employees losing interest. Although, an MLM is not the answer for all who are seeking financial freedom, it certainly provides an open opportunity for those involved to reach their financial objectives.

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## Factors Affecting Customer Satisfaction on Grameenphone users in Bangladesh

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**Abstract-** Mobile telecom sector in Bangladesh has reached at a desired level. Competition in this industry intensifies the urgency of making customer satisfied for corporate profitability and survival in a competitive marketplace. This study is conducted on 140 Grameenphone (GP) users in Bangladesh. The Study reveals that customer extended in respect of age, income, education. Major part of customers uses value added and multiple operators' service; therefore study indicates the urgency of customer satisfaction. The correlation with the factors leading to customer satisfaction found to be positive except network & signal coverage. Finally, multiple regression analysis indicates that GP's service innovativeness, service reliability, service competitiveness, customer demand fulfillment to be found significant and GP's service consistency, network & signal coverage, pricing policy, quality of the offering, value added service, contribution to society and brand value to be found insignificant for affecting customer satisfaction. On the basis of these findings; study concludes that customer satisfaction is a dynamic phenomenon. Maintaining desired level of customer satisfaction requires corporate proactive responsiveness in accessing, building & retaining satisfied customers for sustainable competitive advantages in market place.

**Keywords:** *quality factors; customer satisfaction, grameenphone.*

**GJMBR-E Classification :** *JEL Code: M30, M31*



FACTORS AFFECTING CUSTOMER SATISFACTION ON GRAMEENPHONE USERS IN BANGLADESH

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# Factors Affecting Customer Satisfaction on Grameenphone users in Bangladesh

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**Abstract-** Mobile telecom sector in Bangladesh has reached at a desired level. Competition in this industry intensifies the urgency of making customer satisfied for corporate profitability and survival in a competitive marketplace. This study is conducted on 140 Grameenphone (GP) users in Bangladesh. The Study reveals that customer extended in respect of age, income, education. Major part of customers uses value added and multiple operators' service; therefore study indicates the urgency of customer satisfaction. The correlation with the factors leading to customer satisfaction found to be positive except network & signal coverage. Finally, multiple regression analysis indicates that GP's service innovativeness, service reliability, service competitiveness, customer demand fulfillment to be found significant and GP's service consistency, network & signal coverage, pricing policy, quality of the offering, value added service, contribution to society and brand value to be found insignificant for affecting customer satisfaction. On the basis of these findings; study concludes that customer satisfaction is a dynamic phenomenon. Maintaining desired level of customer satisfaction requires corporate proactive responsiveness in accessing, building & retaining satisfied customers for sustainable competitive advantages in market place.

**Keywords:** quality factors; customer satisfaction, grameenphone.

## I. INTRODUCTION

Mobile telecommunication sector in Bangladesh has been grown. The total number of mobile phone subscribers has reached 115.627 million at the end of April 2014 (BTRC, 2014). Customers of mobile telecommunication extended in respect of age, income, profession, gender, education and religion. It has become an essential component of the present lifetime. It encompasses a broad scope of communication facilities in personal life as well as the corporate office. Telecommunication service providers offer a wide range of value added services, including voice call, voice SMS, MMS, information service, roaming, internet service, video call and remote customer care service. Communication has become a means of clicking on the cell phone bottoms rest of the responsibility lies with the telecommunication service provider to convey it in an appropriate manner. Telecommunication service providers like manufacturing organization offers a wide

range of product and service; based on customers' needs.

Today telecommunication sector in Bangladesh has become competitive. Competition within this industry indicates the priority of customer satisfaction for corporate profitability and survival. Customer satisfaction becomes a strategic parameter of corporate success. Therefore, today's corporate manager highly concerned for maximizing customer satisfaction through quality product and services. But in 21st century customer speaks in everyday language. Therefore, what are the factors responsible for making them satisfied becomes an intense focus of corporate managers as well as academic scholars from the better half of last century. Customer satisfaction literature spell out customer is the king of marketing and only one determinate factor of corporate success. Grameenphone (GP) in Bangladesh has become a leading mobile telecommunication company in Bangladesh. Currently other five operators become proactive in the market place for gaining market share through different promotional activities. Likened to other operators Grameenphone's customer experiences high tariff, poor client service, new product and service with implied terms and conditions. In spite of this backdrop Grameenphone's total number of subscribers has reached 48.847 million at the end of April 2014 at the rate of 42.24 percent market share (BTRC, 2014). On the basis of these realities authors are motivated to identify what factors responsible for customer satisfaction of Grameenphone users in Bangladesh.

## II. RESEARCH OBJECTIVES

- A. To investigate respondent's demographic.
- B. To investigate user service interface.
- C. To investigate the correlations with the variables leading to the customer satisfaction.
- D. To investigate the relationship between service innovativeness and the customer satisfaction.
- E. To investigate the relationship between service reliability and the customer satisfaction.
- F. To investigate the relationship between service competitiveness and the customer satisfaction.
- G. To investigate the relationship between service consistency and the customer satisfaction.
- H. To investigate the relationship between network & signal coverage and the customer satisfaction.

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- I. To investigate the relationship between pricing and the customer satisfaction.
- J. To investigate the relationship between quality of offering and the customer satisfaction.
- K. To investigate the relationship between customer demand and the customer satisfaction.
- L. To investigate the relationship between value added service and the customer satisfaction.
- M. To investigate the relationship between contribution to society and the customer satisfaction.
- N. To investigate the relationship between brand value and the customer satisfaction.

### III. LITERATURE REVIEW AND CONCEPTUALIZATION OF HYPOTHESES

#### a) Customer Satisfaction

Customer satisfaction literature indicates that customer satisfaction has long been an agenda of marketing scholar and corporate executives. Customer satisfaction is the ultimate goal of business. Customer satisfaction associated with the stable market demand of product/service, loyal customer, profitability, growth, success and positive corporate image. Customer satisfaction is defined as pleasure from product and service utility, fulfillment of expectation. It is obvious that customers are important stakeholders in organizations and their satisfaction is a priority for management. Customer satisfaction has been a subject of great interest to organizations and researchers alike. In recent years, organizations are obliged to render more services in addition to their offers. The quality of service has become an aspect of customer satisfaction (Agbor, 2011). Customer Satisfaction can provide you with major competitive advantages, which can directly lead to increase in profitability and growth of business (Sheth, 2001).

#### b) Factors Affecting Customer Satisfaction

Today's world of intensive competition requires firms to maintain the capability of high-quality service as a sustainable competitive priority (Lee, 2013). Identification of factors responsible for customer satisfaction is a key concern of marketing scholars and marketers in now a days and it will remain in the future. There is considerable evidence that quality factors affecting customer satisfaction in numerous ways (Rahman, 2014a). Many studies have found a direct positive link between service quality perceptions and customer behavioral intentions (Zeithaml *et al.*, 1996). Several factors responsible for customer satisfaction in telecommunication industry includes-

**Service innovativeness:** Innovativeness as the tendency to develop new products as well as with innovativeness understood as the capacity to introduce new products (Hult, Hurley, and Knight, 2004). Service innovativeness, or the propensity to introduce service innovations to

satisfy customers and improve firm value at acceptable risk, has become a critical organizational capability. There is a positive significant relationship observed between service innovativeness and customer satisfaction. (Dotzel, Shankar & Berry, 2013). Degree of newness directly effect on customer satisfaction. Therefore, the 1<sup>st</sup> hypothesis of the study is- *H<sub>1</sub>: There is a significant relationship between service innovativeness and the customer satisfaction.*

**Service reliability:** Reliability is about the accuracy and timeliness in the service provided. Service reliability refers to *Accessibility* – Service is available when desired (when the customer wants to use it); *Continuity* – Customer has an uninterrupted service over desired duration and *Performance* – Meets the customers' expectations (CQR, 2014). In order to maintain the customer, the organization needs to ensure that the right products and services, supported by the right promotion and making it available at the right time for the customers (Munusamy, Chelliah & Mun, 2010). Degree of service reliability has significant influence on degree of customer satisfaction. Therefore, the 2<sup>nd</sup> hypothesis of the study is- *H<sub>2</sub>: There is a significant relationship between service reliability and the customer satisfaction.*

**Service competitiveness:** Service competitiveness refers to the degree of fitness of a service organization in dealing with competing with other competitive business firms; high degree of competitiveness leads to higher innovativeness in goods and services leading to strategic advantages in market place & higher customer satisfaction. Companies can foster customer value learning and incorporate it as a cornerstone of their competitive strategies (Parasuraman, 1997). Therefore, the 3<sup>rd</sup> hypothesis of the study is- *H<sub>3</sub>: There is a significant relationship between service competitiveness and the customer satisfaction.*

**Service consistency:** Consistency determines the desirable service qualities for clients. Service consistency is an expectation of all customers at all times; they want peace of mind and no unpleasant surprises. In service, consistency implies achieving sameness, uniformity and fairness in the delivery or execution of all the service attributes, regardless of time, place, occasion, and service provider (Domingo, 2014). Therefore, service consistency refers to degree of conformity of service value whereas customer perceived that they received service in a consistent manner without any variation. Therefore, the 4<sup>th</sup> hypothesis of the study is- *H<sub>4</sub>: There is a significant relationship between service consistency and the customer satisfaction.*

**Network & signal coverage:** Signal quality and network coverage have always been essential criteria for selecting mobile telephone service providers. Today the signal quality has been improved and the company

networks have grown to a great extent. Surveys have shown that both signal quality and network coverage affect positively consumer's satisfaction and the image of the company (Woo & Fock, 1999). Therefore, the 5<sup>th</sup> hypothesis of the study is-  $H_5$ : *There is a significant relationship between network & signal coverage and the customer satisfaction.*

**Pricing:** Several factors affect on customer satisfaction, price is one of them. Price is used as an indicator of product quality, which results in better expectations from the product and determines higher satisfaction. The research shows that price perceptions directly influence satisfaction judgments as well as indirectly through perceptions of price fairness (Herrmann *et al.*, 2007). Price reasonability and consumer satisfaction are significantly associated with each other. The customers can switch to any other cellular service provider who offers fair prices. This reveals that the consumers can be held on to for a longer duration by offering them the fair prices so; the customer satisfaction is caused by the fairness of the price (Ali *et al.*, 2010). Therefore, the 6<sup>th</sup> hypothesis of the study is-  $H_6$ : *There is a significant relationship between pricing and the customer satisfaction.*

**Quality of offering:** Quality Function Deployment (QFD) model used to incorporate customer wants and desire in product and service requirement for satisfying want, desire and expectation of ultimate customers. Quality of offering how does consistent with demand and qualitative to the customers depends on corporate translation it into product and service requirements. Here, quality of service refers to how particular service offering able to meet customer expectation. Higher the fulfillment of expectation; higher will be customer satisfaction. Therefore, the 7<sup>th</sup> hypothesis of the study is-  $H_7$ : *There is a significant relationship between quality of offering and the customer satisfaction.*

**Customer demand fulfillment:** Service providers render services in expectation to fulfillment of customer demand. For fulfillment of customer demand requires an intensive investigation to find out what the customer expected and incorporate it into service requirement. Higher degree of usefulness of service leads to a higher degree of customer satisfaction. Therefore, the 8<sup>th</sup> hypothesis of the study is-  $H_8$ : *There is a significant relationship between customer demand and the customer satisfaction.*

**Value added service:** Value added service refers to additional service for maximizing and adding value to existing customer satisfaction. Currently mobile telecommunication service provider offers a wide range of value added service, including voice call, voice SMS, MMS, information service, roaming, Internet service, video calling, remote customer service. This study is predicted value added service have significant influence on customer satisfaction in telecommunication industry.

Therefore, the 9<sup>th</sup> hypothesis of the study is-  $H_9$ : *There is a significant relationship between value added service and the customer satisfaction.*

**Operator's contribution to society:** Corporate responsiveness towards society creates perception of societal partnership in the customer's mind and they realized themselves that they are valued by the corporation. The study reveals that corporate social responsibility has a positive impact on the valuing brand image of the corporation and also makes customers satisfied. Corporate social responsibility taught to be an important strategic tool for organizations in order to gain a competitive advantage and to display a positive image to society for profitable and long lasting customer relationship management in service and manufacturing industry around the world (Rahman, 2014b). Therefore, the 10<sup>th</sup> hypothesis of the study is-  $H_{10}$ : *There is a significant relationship between contribution to society and the customer satisfaction.*

**Brand Value:** Marketing academics and practitioners have repeatedly reported that consumers look for brands that provide them with unique and remarkable experiences. As a result, the concept of brand experience has become popular among marketers (Rundle-Thiele & Bennett, 2001). The industry depends on people's experience on quality and a good experience may lead to better purchase intention which could build a better image on the market. Since the market is highly competitive, it is recommended that only high quality products be offered to customers (Khalili, Rahchamani & Abtahi, 2013). Therefore, the 11<sup>th</sup> hypothesis of the study is-  $H_{11}$ : *There is a significant relationship between brand value and the customer satisfaction.*

On the basis of literature review the overall customer satisfaction model can be presented as under-

$$\text{Customer Satisfaction} = \alpha \text{ (Constant)} + \beta_1 \text{ (Service innovativeness)} + \beta_2 \text{ (Service reliability)} + \beta_3 \text{ (Service competitiveness)} + \beta_4 \text{ (Service consistency)} + \beta_5 \text{ (Network \& signal coverage)} + \beta_6 \text{ (Pricing)} + \beta_7 \text{ (Quality of offering)} + \beta_8 \text{ (Customer demand fulfillment)} + \beta_9 \text{ (Value added services)} + \beta_{10} \text{ (Operator's contribution to society)} + \beta_{11} \text{ (Brand Value)} + e \text{ (Random Error)}$$

#### IV. MATERIALS AND METHODS

This study is descriptive and designed to test hypotheses. Therefore, this study is aimed to examine the factors leading to the customer satisfaction to the Grameenphone Users in Bangladesh. The hypotheses testing based on literature review for explaining the relationship between the independent and dependent variables.

This study mainly based on primary data originating from a survey. For this purpose a

constructed questionnaire has developed. Excepting the questions regarding demographic characteristics and user's value added service interface of the respondents and the issues relating to service innovativeness, service reliability, service competitiveness, service consistency, the operator's network/ signal coverage, pricing, offering, fulfillment of customer demand, value added service, brand value, operators contribution to society and customer satisfaction have been constructed, measured and investigated through 5 point Scale standardized by Brayfield-Rothe (1951). The scale consists of 12 statements, for each statement has five options/ points such as strongly agree/ 5, agree/ 4, undecided/ 3, disagree/ 2, and strongly disagree/ 1. The survey is conducted during July 2013 to March 2014 and total 140 number of Grameenphone users has been taken for this.

SPSS Statistics software package version 16 is used for statistical analysis. Reliability of data has measured by using the Cronbach Alpha (Cronbach, 1951). Cronbach Alpha was 0.7. Alpha is higher than that is suggested by Nunnally (1978) and therefore data collected can be considered reliable. Descriptive statistical techniques such as mean and standard deviation were used to measure the mean scores and their variability. Pearson Correlation is used to indicate correlations among the variables, Linear Regression analysis is used to test the hypotheses.

## V. ANALYSIS AND FINDINGS

### a) Respondent's Demographic

The questionnaires were distributed to the users (n=140) of Grameenphone among them 78.6% respondents thoroughly use GP, 10.7 % users were Banglalink users, 2.1% users were Robi, 0.7% users were Airtel, 2.1% were Taletalk, 5.7% were Citycell users who currently use GP service. Among the respondents, 70% users use multiple operators' service and 30% use only the GP service. 13.6% users use GP below 3 years, 37.1% respondents use within 3-6 years, 49.3% use for 6 years and above. Respondents bellow 30 years using GP is 75.7%, within 30-45 years users comprise 15.7% and above 45 years users are 8.6%. 53.6% respondent's monthly expense bellows Tk.500, 32.1% incur expense within Tk. 500-1000 and 14.3% respondents have above Tk 1000 monthly expense. Among the respondent's 5.0% below SSC, 7.9% SSC, 25% HSC, 35% Bachelor, 24.3% Master, 1.4% PhD and 1.4% have other educational degree. 59.3% Student, 25.7% Service Holder, 9.3% Businessman and 5.7% respondent's occupying other profession. 79.3% Male and 30.7% are Female respondents.

Table 1 : Respondent's Demographic

Demographic Variables		Frequency	Percent
First Mobile Operator	GP	110	78.6
	Banglalink	15	10.7
	Robi	3	2.1
	Airtel	1	.7
	Taletalk	3	2.1
	Citycell	8	5.7
	Total	140	100.0
Current Mobile Operator	GP	140	100.0
Use of Multiple Operator's Service	Yes	98	70.0
	No	42	30.0
	Total	140	100.0
Year of Connection	below 3 years	19	13.6
	3-6 years	52	37.1
	6 years and above	69	49.3
	Total	140	100.0
Age	bellow 30 years	106	75.7
	30-45 years	22	15.7
	above 45 years	12	8.6
	Total	140	100.0
Monthly Mobile Expense	bellow Tk 500	75	53.6
	Tk 500-1000	45	32.1
	above Tk 1000	20	14.3
	Total	140	100.0
Education	below SSC	7	5.0
	SSC	11	7.9
	HSC	35	25.0
	Bachelor	49	35.0

	Master	34	24.3
	PhD	2	1.4
	others	2	1.4
	Total	140	100.0
Profession	Student	83	59.3
	Service Holder	36	25.7
	Businessman	13	9.3
	Others	8	5.7
	Total	140	100.0
Gender	Male	111	79.3
	Female	29	20.7
	Total	140	100.0

*b) User's Service Interface*

Among the GP user's 100% respondents use Voice call service. 25.7% use Voice SMS service, 95%

use SMS service, 36% use MMS service, 61% use Internet service and 22.1% use Information service.

*Table 2 : User's Service Interface*

Service Interface		Frequency	Percent	Cumulative %
Voice Call	Yes	140	100.0	100.0
	No			
Voice SMS	Yes	36	25.7	25.7
	No	104	74.3	100.0
	Total	140	100.0	
SMS	Yes	133	95.0	95.0
	No	7	5.0	100.0
	Total	140	100.0	
MMS	Yes	51	36.4	36.4
	No	89	63.6	100.0
	Total	140	100.0	
Internet Service	Yes	86	61.4	61.4
	No	54	38.6	100.0
	Total	140	100.0	
Information Services	Yes	31	22.1	22.1
	No	109	77.9	100.0
	Total	140	100.0	

*c) Descriptive Statistics*

Descriptive statistics such as mean is used to measure the average value of the variables and standard deviation is used to test variability of the mean value. Five point scale is used to collect perception regarding the variables. Therefore, mean value of variables ranges 1 to 5. A mean value below 2.5 is below average, mean value 2.5 to 2.9 above average, 3

to 3.9 is moderate and mean value 4 to 5 is high. The mean value of the variables ranges 4.10 to 2.23. Mean value ranges up to above average except customer satisfaction (3.55 Moderate) and network & signal coverage (4.1 High). Standard deviation ranges 0.767 to 1.201. Therefore, higher variability in perception regarding variables has been observed.

*Table 3 : Descriptive Statistics*

Variables	Quality Factors	N	Mean	Std. Deviation
Dependent (DV)	Customer Satisfaction	140	3.55	1.140
Independent (IV <sub>1</sub> )	Service Innovativeness	140	3.36	1.019
Independent (IV <sub>2</sub> )	Service Reliability	140	3.46	.985
Independent (IV <sub>3</sub> )	Service Competitiveness	140	3.16	1.201
Independent (IV <sub>4</sub> )	Service Consistency	140	3.39	.980
Independent (IV <sub>5</sub> )	Network & Signal Coverage	140	4.10	.867
Independent (IV <sub>6</sub> )	Pricing	140	2.23	.977
Independent (IV <sub>7</sub> )	Quality of Offering	140	2.31	.960
Independent (IV <sub>8</sub> )	Customer Demand	140	2.27	.995
Independent (IV <sub>9</sub> )	Value Added Service	140	3.06	1.026
Independent (IV <sub>10</sub> )	Contribution to Society	140	3.31	1.072
Independent (IV <sub>11</sub> )	Brand Value	140	4.19	.767

#### d) Correlations among Variables

A correlation is a single number that describe the strength of linear relationship between two or more interrelated quantitative variables. A mathematical measure of the between two set of variables is called the Correlation Coefficient. It is most commonly symbolized by the letter  $r$ . the value of correlation coefficient ( $r$ ) lies between -1 to +1. In universal,  $r > 0$  indicates positive relationship,  $r < 0$  indicates negative relationship while  $r = 0$  indicates no relationship. Here  $r = +1.0$  describes a perfect positive linear relationship and  $r = -$

1.0 describes a perfect negative linear relationship. Closer the coefficients of +1.0 and -1.0, greater are the strength of positive/ negative the relationship between the variables. The following general guidelines indicate a quick way of interpreting the value of correlation coefficient: -0.9 to -1.0 or 1.0 to 0.9 very strong; -0.9 to -0.7 or 0.7 to 0.9 strong high; -0.7 to -0.4 or 0.4 to 0.7 moderate; -0.4 to -0.2 or 0.2 to 0.4 weak, low correlation and -0.2 to 0.0 or 0.0 to 0.2 very weak to negligible negative/positive correlation.

Table 4 : Correlations among Variables

Variable/s		Customer Satisfaction
Service Innovativeness	Pearson Correlation	.495**
	Sig. (2-tailed)	.000
	N	140
Service Reliability	Pearson Correlation	.457**
	Sig. (2-tailed)	.000
	N	140
Service Competitiveness	Pearson Correlation	.525**
	Sig. (2-tailed)	.000
	N	140
Service Consistency	Pearson Correlation	.179*
	Sig. (2-tailed)	.035
	N	140
Network & Signal Coverage	Pearson Correlation	-.012
	Sig. (2-tailed)	.885
	N	140
Pricing	Pearson Correlation	.171*
	Sig. (2-tailed)	.044
	N	140
Quality of Offering	Pearson Correlation	.051
	Sig. (2-tailed)	.548
	N	140
Customer Demand	Pearson Correlation	.286**
	Sig. (2-tailed)	.001
	N	140
Value Added Service	Pearson Correlation	.332**
	Sig. (2-tailed)	.000
	N	140
Contribution to Society	Pearson Correlation	.220**
	Sig. (2-tailed)	.009
	N	140
Brand Value	Pearson Correlation	.182*
	Sig. (2-tailed)	.031
	N	140

Table 4 shows the Pearson's correlation coefficient of the variables of the study. The results show that there is a significant positive moderate correlation between the service innovativeness ( $IV_1$ ) & customer satisfaction (DV) with coefficient correlation  $r = .495$  at  $p < 0.00$  level; there is a positive significant moderate correlation between the service reliability ( $IV_2$ ) & customer satisfaction (DV) with coefficient correlation  $r = .457$  at  $p < 0.00$  level; there is a significant positive moderate significant correlation between the service competitiveness ( $IV_3$ ) & customer satisfaction (DV) with coefficient correlation  $r = .525$  at  $p < 0.00$  level; there is

a significant very weak to negligible positive significant correlation between the service consistency ( $IV_4$ ) & customer satisfaction (DV) with coefficient correlation  $r = .175$  at  $p < 0.35$  level; there is an insignificant negative very weak to negligible insignificant positive correlation between the network & signal coverage ( $IV_5$ ) & customer satisfaction (DV) with coefficient correlation  $r = -.012$  at  $p < 0.885$  level; there is a very weak to negligible significant positive correlation between the pricing ( $IV_6$ ) & customer satisfaction (DV) with coefficient correlation  $r = .171$  at  $p < 0.044$  level; there is a very weak to negligible insignificant positive relationship

between the quality of offering (IV<sub>7</sub>) & customer satisfaction (DV) with coefficient correlation  $r = .051$  at  $p < 0.548$  level; there is a significant weak, low positive correlation between the customer demand (IV<sub>8</sub>) & customer satisfaction (DV) with coefficient correlation  $r = .286$  at  $p < 0.001$  level; there is a significant weak, low positive correlation between the value added service (IV<sub>9</sub>) & customer satisfaction (DV) with coefficient correlation  $r = .332$  at  $p < 0.00$  level; there is a weak, low significant positive relationship between the contribution to society (IV<sub>10</sub>) & customer satisfaction (DV) with coefficient correlation  $r = .220$  at  $p < 0.009$  level, and there is a weak, low correlation positive significant correlation between the brand value (IV<sub>11</sub>) & customer satisfaction (DV) with coefficient correlation  $r = .182$  at  $p < 0.031$  level.

#### e) Regression Analysis

In this section, multiple regression analysis is used to study the effect of the independent variables ( $X_1$

= Service Innovativeness,  $X_2$  = Service Reliability,  $X_3$  = Service Competitiveness,  $X_4$  = Service Consistency,  $X_5$  = Network/Signal Coverage,  $X_6$  = Reasonable Price,  $X_7$  = Quality of Offering,  $X_8$  = Customer Demand Fulfillment,  $X_9$  = Value Added Service,  $X_{10}$  = Brand Value,  $X_{11}$  = Contribution to Society) to the dependent variable ( $Y$  = Customer Satisfaction)

Significance level for, variables are accepted on Alpha ( $\alpha$ ) = 1%, significance level = 99% significant at 1% (\*). Table 5 shows the analysis of multiple regressions. The value of R is .697, the value of R square is .486 and the standard error of the estimate was .851. The model summary and the data are shown in Table 5.

Table 5 : Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697 <sup>a</sup>	.486	.442	.851

a. Predictors: (Constant), Brand Value, Customer Demand, Service Consistency, Service Innovativeness, Network & Signal Coverage, Service Reliability, Pricing, Contribution to Society, Value Added Services, Quality of Offering, Service Competitiveness.

The results from Table 5 show that the regression equation explains more than 48.6 % of the variability in customer satisfaction. This is an acceptable level of R Square in explaining variability of customer satisfaction. The results of the multiple regression models indicate that service innovativeness, service reliability, service competitiveness, service consistency, the operator's network/signal coverage, pricing, offering, fulfillment of customer demand, value added service, brand value, operators contribution to society explain the variance in customer satisfaction. The value of the R

Square is an acceptable value for explaining variability of customer satisfaction.

Analysis of variance test statistics (ANOVA) in table 6 indicates that the model is significant at  $\alpha = .000$ . This table provides the information on the significance of the model indicating a significant p-value of .000 and  $F=11.019$ . This indicates that the overall model was reasonably fit and there was a statistically significant association between service quality dimension and customer satisfaction. The ANOVA findings are shown in Table 6 below.

Table 6 : ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	87.864	11	7.988	11.019	.000 <sup>a</sup>
Residual	92.786	128	.725		
Total	180.650	139			

a. Predictors: (Constant), Brand Value, Customer Demand, Service Consistency, Service Innovativeness, Network & Signal Coverage, Service Reliability, Pricing, Contribution to Society, Value Added Services, Quality of Offering, Service Competitiveness.

b. Dependent Variable: Customer Satisfaction.

Table 7 shows that the values of the T-statistic are significant for service innovativeness, service reliability, service competitiveness and customer demand. Thus, all the independent variables can be retained in the model. In other word, these variables can explain the change in customer satisfaction. Table 7 shows that four independent variables are found to be

very significant and supportive to the hypotheses of regression analysis except the operator's network/signal coverage, pricing, offering, service consistency, value added service, brand value, operators contribution to society are not statistically significant and it does not support the hypotheses.

Table 7 : Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.375	.585		-.641	.523
	Service Innovativeness	.261	.092	.233	2.826	.005
	Service Reliability	.245	.083	.212	2.966	.004
	Service Competitiveness	.280	.072	.295	3.890	.000
	Service Consistency	.081	.078	.070	1.036	.302
	Network & Signal Coverage	-.074	.091	-.056	-.811	.419
	Pricing	.064	.086	.055	.742	.460
	Quality of Offering	-.127	.089	-.107	-1.432	.155
	Customer Demand	.241	.082	.210	2.926	.004
	Value Added Service	.046	.082	.041	.559	.577
	Contribution to Society	.045	.078	.042	.573	.567
	Brand Value	.157	.105	.106	1.494	.138

a. Dependent Variable: Customer Satisfaction.

Table 7 indicates that service Grameenphone's innovativeness, service reliability, service and demand fulfillment of customers have significant influence on customer satisfaction of Grameenphone users in Bangladesh. Therefore, the hypotheses  $H_1$ ,  $H_2$ ,  $H_3$  and  $H_8$  are accepted at the 5 % level of significance ( $p$  value is less than 0.05). Table 7 also indicates that Grameenphone's service consistency, network & signal coverage, pricing, quality of the offerings, value added service, contribution to society and the brand value have insignificant influence on customer satisfaction of Grameenphone users in Bangladesh. Therefore, the hypotheses  $H_4$ ,  $H_5$ ,  $H_6$ ,  $H_7$ ,  $H_9$ ,  $H_{10}$  and  $H_{11}$  are rejected

at the 5 % level of significance ( $p$  value is greater than 0.05).

On the basis of results of regression model of the study is-

Customer Satisfaction =  $-0.375 + 0.261$  (service innovativeness) +  $0.245$  (service reliability) +  $0.280$  (service competitiveness) +  $0.081$  (service consistency) +  $-0.074$  (network & signal coverage) +  $0.064$  (pricing) +  $-0.127$  (quality of offering) +  $0.241$  (customer demand) +  $0.046$  (value added services) +  $0.045$  (contribution to society) +  $0.157$  (brand value) +  $e$

Table 8 : The Summary of Hypotheses Results

Hypotheses	Results
$H_1$ : There is a significant relationship between service innovativeness and the customer satisfaction.	Accepted
$H_2$ : There is a significant relationship between service reliability and the customer satisfaction.	Accepted
$H_3$ : There is a significant relationship between service competitiveness and the customer satisfaction.	Accepted
$H_4$ : There is a significant relationship between service consistency and the customer satisfaction.	Rejected
$H_5$ : There is a significant relationship between network & signal coverage and the customer satisfaction.	Rejected
$H_6$ : There is a significant relationship between pricing and the customer satisfaction.	Rejected
$H_7$ : There is a significant relationship between quality of offering and the customer satisfaction.	Rejected
$H_8$ : There is a significant relationship between customer demand and the customer satisfaction.	Accepted
$H_9$ : There is a significant relationship between value added services and the customer satisfaction.	Rejected
$H_{10}$ : There is a significant relationship between contribution to society and the customer satisfaction.	Rejected
$H_{11}$ : There is a significant relationship between brand value and the customer satisfaction.	Rejected

## VI. CONCLUSIONS AND RECOMMENDATIONS

Assessing, building and keeping customer satisfaction reveals the top most priority in today's competitive business. Customers of a mobile telecommunication service have many options available due to low switching cost, competitive service among the operators. Hence, the urgency of customer satisfaction reveals among them. Satisfied customers are loyal, act as a recommender to potential customers. But building a satisfied customer is not easy job; it cries for many people's sweating. Customer centered philosophy declared customer focal point of corporate success;

believes in together we grow- valuing customer satisfaction and corporate profitability. Therefore, corporate success is associated with responsiveness to customer; higher responsiveness to customer leads to higher customer satisfaction.

Study reveals that customers of Grameenphone widely distributed regardless the income groups, profession, gender, educational attainment, year of service connection, age, receiving multiple operators' service and users' service interface indicates that customers enjoying different value added service, including voice call, SMS, voice, SMS, video call, information service,

internet service etc. The correlation among the variables leading to customer satisfaction found positive in this study. In this study variables leading to customer satisfaction reveal a significant association in a review of the literature. However, the multiple regression analysis indicates four variables leading to customer satisfaction found positive including service innovativeness, service reliability, service competitiveness and fulfillment of customer demand. In this respect study conclude that Grameenphone's customer perceived that Grameenphone's innovative, reliable, competitive service able them to satisfy their demand. This study, on the other hand, indicates that, variables such as Grameenphone's service consistency, network & signal coverage, pricing, quality of offerings, value added services, contributing to society and brand value have insignificant influence on getting the customers satisfied.

Evidence shows that the customer of Grameenphone is satisfied about its service innovativeness. Grameenphone is the market leader in the telecommunication sector in Bangladesh and thus it is important for Grameenphone to maintain innovativeness in its service so that it can hold its leader position in the market and in the mind of the customer.

As this survey shows that Grameenphone's customers have a positive perception about the reliability of the services and competitiveness of services. Grameenphone should always maintain this positive perception of the customer regarding those factors. At the same time Grameenphone should not increase the expectation of customer by unnecessarily promising for more value to the customer.

The customer always seeks consistent services and it is an important factor in customer satisfaction. But unfortunately this study shows that the customer of Grameenphone does not find the services consistent as their expectation. Thus, it is recommended that Grameenphone may try to ensure the highest level of consistency of their services.

Network and signal coverage is the core value of telecommunication services. Comparatively the network & signal coverage of Grameenphone is better than those of other telecommunication service provider in Bangladesh. But as this study shows that customer do not find a significant relationship between network & signal coverage and customer satisfaction, this may imply that customer thinks network & signal coverage as the core of telecommunication services and it is usually expected to have a good network & signal coverage of Grameenphone. Although the presence of good network & signal coverage do not lead to a customer satisfaction, but absence of network & signal coverage may lead to strong dissatisfaction. That's why Grameenphone should keep up and try to increase the quality of network & signal coverage.

Although any firm tries to create high customer satisfaction but this is not the ultimate goal. If the

company increases customer satisfaction by lowering its price the result may be lower the profits. As Grameenphone is the market leader in the telecom industry in Bangladesh with some close competitor Grameenphone should charge slightly higher prices than its competitor that is actually currently doing this company.

It is obvious that designing an offering with expected attributes and quality of those offerings according to the demand of customer is very much significant for customer satisfaction. But increasing the attributes within an offering and maintaining the quality of those offerings is not free of cost. Here this study reveals that customer of Grameenphone's are satisfied about their demand fulfillment in terms of offering with their expected attributes, but they are not satisfied about the quality of their offering. So Grameenphone should emphasize on maintaining the quality of their offering rather than to promise for offering with more new attributes.

In the 21st century business environment is very much competitive. Consumer favors the company which plays a positive role in social welfare. At the same time the effectiveness of advertising is decreasing rather consumer is influenced by publicity. And this publicity is the outcome of the CSR activities of a company. On the other hand contribution to society can build a good image of the company which ultimately creates brand value. Thus, it is recommended that Grameenphone should give more emphasize on contribution to social welfare. It can reduce some portion of the advertising cost and divert these on CSR activities. Thus, if Grameenphone can ensure and maintain service innovativeness, service reliability, service competitiveness, service consistency, quality & quantity of offering and CSR activities its brand value is expected to increase and which expected to lead customer satisfaction.

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- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

#### **Approach:**

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

#### **What to keep away from**

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

#### **Results:**

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently. You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.



## Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

### What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

### Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

### Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

### Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

### Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.



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<i>References</i>	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring



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