Katsuyoshi Takashima
Professor, Graduate School of Business Administration,
Kobe University

“Behavior-Based Salesforce Control Systems and
Interdepartmental Communication”

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Graduate School of Business Administration,
Kobe University
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Abstract

Salesforce control systems can be classified into outcome-based control systems and behavior-based control systems. Recent organizational change has brought a growing interest towards behavior-based control systems. Through behavior-based control systems one can decrease the ambiguity of sales activities and increase information sharing between the sales department and other departments. The results from a study of about 300 sales organizations suggest that companies introducing behavior-based control systems expect the effect of interdepartmental communication. The results of this study provide guidelines for managers to aid their selection of a behavior-based control system and to promote cross-functional communication for information sharing.

Introduction

The choice of salesforce control systems within sales management has been paid increased attention and has also become a focal point in marketing literature. That is, much theoretical and empirical research has already been accumulated concerning the choice of control systems, and it has been pointed out that the characteristics of sales activities differ between control systems used in salesforce management (Anderson and Oliver, 1987; Cravens et al., 1993; Oliver and Anderson, 1994; Krafft, 1999). These studies described major salesforce control systems and discussed the effects of these systems on the salesperson’s behavior. For example, Anderson and Oliver (1987) suggested that salesforce control systems could be classified into an outcome-based control system and a behavior-based control system.
This paper focuses on the relationship between the choice of salesforce control systems and interdepartmental communication, which extends previous studies in this area. Although a large number of studies have assessed the positive aspects of a behavior-based control system, little attention has been given to the effect of cross-functional information sharing according to a behavior-based control system. A behavior-based control contributes to decreasing ambiguity of sales activities and makes information of customer needs and sales activities understandable for other departments.

In this article, we present evidence on the relationship between the choice of behavior-based control systems and the expectation of the cross-functional communication drawn from an empirical study of sales organizations. The results of this study provide guidelines for managers to aid their selection of a behavior-based control system and to promote cross-functional communication for information sharing.

**Outcome-based and Behavior-based Control Systems**

The basic characteristic of outcome-based control systems is that the activities of salespeople are not strictly monitored by management, and the evaluation and rewarding are done by direct use of objective measures, such as sales and profits that an individual has achieved (Anderson and Oliver, 1987; Cravens et al., 1993; Oliver and Anderson, 1994). Therefore, by looking at outcomes such as sales and profits, managers judge whether or not salespeople are performing to their expectations.

Furthermore, as the compensation system is reflective of sales results, each sales person is motivated to achieve higher results (Anderson and Oliver, 1987; Chowdhury, 1993). Additionally, due to sales activities being diverse and liable to change, it is recommended that individual sales people, through their own experience, use appropriate selling skills in line with the different transaction conditions, customers and individual personalities (Dubinsky et al., 1986). Thus, in outcome-based control systems, analyzing information regarding the actual activities for improvement of their behavior becomes the individual role of the sales person in charge. As management does not have sufficient data about their sales activities, even if salespeople fill out call reports, the manager can only give some advice, which is mental rather than concrete.

Therefore, the merit of outcome-based control is that the management costs of
salesforce are minimized. Normally, sales activities are mainly conducted out of their companies and the situations of the actual sales activities are very complicated. Accordingly, if a manager tried to identify an efficient sales method by detailed observation of individual circumstances, then the management costs would increase. In outcome-based control systems, as management is mainly based on the results of sales and profits, such time-consuming communication would be omitted and the expected management costs would be low.

In addition to this, it is easy to form a consensus with sales people and managers, because the rule is simple and clear - those with larger sales and profits contribute more to the firm, and those who contribute more to the firm will be compensated.

On the other hand, it can be pointed out that a demerit of outcome-based control systems is that because the performance is appraised based on short-term sales and profits sales people overemphasize the pursuit of short-term results (Adkins, 1979). In other words, it can be said that sales people are inclined to disregard customer relationships and be negative towards future market developments under outcome-based control systems.

In contrast to outcome-based control, behavior-based control is the style in which management gathers detailed information concerning sales people’s activities, and then sets a number of goals and gives instructions to sales persons regarding their sales activities. Also, personal evaluation and compensation are not only based on the figures of sales and profits, but also based on sales people’s overall input towards sales activities, which includes selling ability (e.g., aptitude, product knowledge) and their individual activities (e.g., number of calls) (Anderson and Oliver, 1987; Oliver and Anderson, 1994).

Thus, in behavior-based management a number of measuring scales are established regarding the sales processes that sales people carry out, and sales activities are monitored in detail. For example, detailed contents - how much contact was made with which customer, how and what was proposed to the customer, how much time was spent, and what was learnt in training - are collected, and these data are accumulated. Furthermore, in order to control sales activities it is necessary to observe data collected about these sales processes and also to consider problems related to sales activities and customer relationships (Weitz, 1978).

In such a behavior-based control system, the principal advantage emphasized is that a
sales manager can avoid the pursuit of sales people’s short-term results because short-term results are not directly related to evaluation and compensation (Anderson and Oliver, 1987).

On the other hand, the demerit of behavior-based control systems is that administration may become complicated (Marshall and Ferre, 1998). In other words, gathering data, analysis and direction are conducted thoroughly and frequently, thus the administration costs can become higher than outcome-based control systems.

Choice of a Salesforce Control System

Outcome-based and behavior-based control systems are very different types of sales control systems. In previous research, consideration has been given as to how selecting control systems can be affected by the condition of sales.

Anderson and Oliver (1987) show the selection pattern of sales control systems, as shown in Figure 1, based on organization theory (e.g., Ouchi, 1979; Eisenhardt, 1985). The first factor affecting the selection is whether there is enough process knowledge to be able to plan beforehand what sort of sales activities need to be developed.

In behavior-based control systems, it is better to possess more process knowledge in considering what type of sales activity will be viable. In other words, when customer demands are varied and the situation is uncertain, and when various types of sales activities are developed in order to match different customers and different situations, the relationship between actions and results will become more difficult to recognize. As a result, it will be more difficult to identify a suitable sales process. In this case, the complexity of behavior-based control systems will be emphasized.

The second factor in the selection of control systems is the ability to measure outcomes accurately and completely. If a company mainly wants to pursue short-term sales and profits, it is easy to measure the outcomes specified (John and Weitz, 1989). On the other hand, if it wants to pursue, not short-term factors such as sales and profits, but rather long-term goals such as customer satisfaction and market development for new products or areas, it is difficult to measure such outcomes through overall sales activities.

In a situation where a company gives priority to short-term sales and profits due to
strategy and competition, outcome-based control can be considered to be more valid. That is to say, when the harmful effects from having short-term goals such as sales and profits are small, the demerits of outcome-based control are kept to a minimum (Anderson and Oliver, 1987; Oliver and Anderson, 1994).

However, in a situation where companies want to emphasize long-term goals, such as enhancing customer goodwill and reputation or the future sales of a pioneering product line, it is difficult to judge performance through sales and profits. In this situation, if an outcome-based control system is used, sales people will pursue short-term goals and there will be harmful effects. Behavior-based control will therefore become necessary.

These two conditions can be represented in Figure 1. When there is perfect process knowledge, and when managers cannot measure outcomes accurately and completely \[ \phi \], then behavior-based control should be chosen. When there is imperfect process knowledge, and output measures are accurate and complete \[ \phi \], then outcome-based control is appropriate. Furthermore, when there is sufficient process knowledge and outcomes are measurable \[ \phi \], it is possible to use either outcome-based or behavior-based control systems.

**Figure 1.**

**Choice of sales control systems**

<table>
<thead>
<tr>
<th>Ability to Measure Outcomes Accurately and Completely</th>
<th>Process Knowledge</th>
<th>Perfect</th>
<th>Imperfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>behavior-based or outcome-based control [ \phi ]</td>
<td>outcome-based control [ \phi ]</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>behavior-based control [ \phi ]</td>
<td>“clan” control [ \phi ]</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Anderson and Oliver (1987)

From this figure, we can see there is a case where either outcome-based or behavior-based control would be unsuitable. That is when there is imperfect process
knowledge and it is difficult to measure sales outcomes [ ]. This is because behavior-based control is not valid due to lack of understanding of sales process, and outcome-based control is unsuitable as sales outcomes cannot be measured properly.

In such a situation, organization theory proposes a third type of control system, the “clan” (Ouchi, 1979; Eisenhardt, 1985). A clan means a group made up of members who have the same values, and where the organization has a strong commitment (Deshpande et al. 1999). When a clan is formed in salesforces, sales people’s actions are consistent with the company’s goals and customer relationships, and sales people avoid pursuing short-term goals since they value the company’s goals and customer relationships as important as their own goals (Anderson and Oliver, 1987).

**Behavior-based Control Systems and Interdepartmental Information Sharing**

According to Anderson and Oliver (1987), when there is sufficient process knowledge and the possibility of measuring outcomes is low, behavior-based control is suitable. However, considering recent shift toward behavior-based control systems (Marshall and Ferre 1998), this selection of control systems based on process knowledge and the ability to measure outcomes is not always justified.

At least, even though there is a shift to behavior-based control, it is difficult to find any change in sales activities which have been more oriented towards short-term outcomes than before or where the sufficient process knowledge of sales people and managers has made the prior planning of sales activities more efficient.

According to Anderson and Oliver model, unless the level of their process knowledge has increased recently, companies without sufficient process knowledge would select outcome-based control or clan-type control in salesforce management. Nevertheless, many companies tend to introduce a behavior-based control system in their salesforce according to relationship-based sales strategies (Cravens et al., 1993). In such an instance, what other contributing factors are involved in the application of behavior-based control?

Then, we present one further factor that is important in selecting behavior-based control systems, which is the effect of interdepartmental communication.

Behavior-based control systems can reduce ambiguity of information regarding sales
activities and customer relationships. The reduction of ambiguity brings about the positive promotion of interdepartmental information sharing.

As sales activities are carried out outside of the company, those who are not directly involved in sales activities cannot get an accurate awareness of the situation. Since the customers give nonverbal responses in the course of negotiation, it is not possible to get an accurate understanding of all of the communication and reactions of the customers during the selling process (Dubinsky et al., 1986). Even if an accurate recording could be made, such data would be too redundant to be used in database systems. In any case, specifying the factors that bring about outcomes in daily sales activities is a difficult task. It is also especially difficult to ascertain which actions had an effect on the success of breeding customer relationships. These kinds of ambiguities in sales activities bring about a situation where other departments cannot accurately understand the sales activities (Hedda 1997).

Furthermore, due to the various interests held by the sales people, information regarding sales activities is often distorted. For example, the sales people tend to claim to the managers that stagnation in sales performance is not due to mediocre sales activities, but due to a temporary environment that they cannot control.

In addition to this, sales departments often tend to demand excessive service of other departments in order to adapt to the specific customer’s needs, such as customization, fast delivery and special technical assistance. Sales people and sales managers perceive these actions as vital in customer relationship management (Siguan et al., 1994), but on the other hand, other departments regard this extra service to the customers as overkill, and become concerned if this extra cost does not bring the appropriate extras results.

Therefore, if the ambiguity in sales activities could be reduced, it would be possible for other departments to share information regarding sales activities (Gupta and Wilemon, 1986; Gupta and Wilemon, 1988). Under behavior-based control systems, sales behavior wouldn’t be grasped by infrequent and comprehensive information of profit or sales, but process data from sales activities and indicators at intermediate stages, which would become clearer for other departments and promote interdepartmental cooperation.

These kinds of change in interdepartmental communication through behavior-based control systems can be understood as the formalization of interdepartmental communication (John and Martin, 1984; Gupta and Wilemon, 1986; Ruekert and Walker,
1987). Regarding this issue, formalization has also been explained in terms of contributing to interdepartmental coordination through decreasing interdepartmental conflict. In other words, formalized rules and procedures in interdepartmental communication clarify the roles of each department and its managers, and much conflict can then be resolved through restricting dysfunctional activity. According to Moenaert et al. (1994), the formality in these rules and procedures promotes active communication between the marketing department and the R&D department. Therefore, formal communication does not eliminate informal communication, but as it becomes a platform for informal contact within the organization, informal communication also becomes more active, which rather promotes innovation (Moenaert and Souder, 1990; Moenaert et al., 1994).

From these viewpoints, in behavior-based control systems, standardizing and formalizing procedures of communication in sales activities can reduce interdepartmental conflict, and a higher level of interdepartmental cooperation can be expected.

Specifically, through communicating the situation of sales activities in detail, the following various interdepartmental effects can be expected. Firstly, through information sharing regarding the situation of sales activities with the R&D department, cross-functional cooperation in sales activities such as investigating customer needs and technological problem solving can be carried out in a swift and planned fashion (Boles et al. 1996). In a situation where effective information sharing is carried out, product development will be efficient (Gupta and Wilemon, 1988).

Secondly, in the case of customized production, it is important to have an accurate understanding of the progress in negotiations with the customer, and to share this information with the production department and the service department. If these departments have early and symptomatic information on expected orders, which allows enough lead time before the time of delivery, it will be easy to cut costs by applying more planned and efficient methods for production and customer service.

The emphasis placed on the interdepartmental information sharing based on behavior-based control systems is consistent with the emphasis being placed on relationships in marketing activities. Basically, the idea of shifting to a salesforce control system aiming to solve customer’s problems through the establishment of customer relationships is widely accepted (Evans et al., 1998; Bauer et al., 1998). The
shift to relationship marketing will bring an interest in a behavior-based control system.

There are two reasons for the demand of an interdepartmental cooperation system based on behavior-based control for customer relationships.

The first reason is that in the last few decades, as product technology has become increasingly specialized and complicated, it has become more difficult for sales people with their limited knowledge to propose solutions to the customers. Therefore, in order to understand and solve the customer’s problem, it now requires the cooperation of the other departments such as the R&D departments (Dunn et al. 1981; Moon and Armstrong, 1994; Boles et al., 1996; Moon and Gupta, 1997). However, the functional differences in the organization will prove to be an impediment to cross-functional communication for swift and flexible adaptation to the customer’s needs and effective problem-solving (Moon and Armstrong, 1994; Lambe and Spekman, 1997).

For other departments such as R&D departments, it is desirable to have behavior-based control systems employed in order to form a cooperation system with the sales department. By employing behavior-based control systems in the sales department, the ambiguity in sales activities can be decreased, and sales activities can be better coordinated with product development activities. Hence, the following hypothesis is suggested.

H₁: The more important information exchange with the customer regarding product development becomes, the more a behavior-based control system will be employed.

The second reason for the demand of behavior-based control systems regarding customer relationships is that in the case of transactions between a number of sales offices and a number of establishments of a client company, it is necessary to coordinate and control the sales activities and customer service activities among various sales offices and various departments within a selling company (Cespedes et al., 1989; Millman, 1996; Boles et al., 1999; Montgomery and Yip, 2000). For example, even if centralized purchasing decisions are being made at customer’s head office, it is still vital to gather information from each of the customer’s departments through sales offices and to carry out cohesive sales and service activities. Then, if activities of sales and service offices in each region can be coordinated, the level of effectiveness and efficiency in
solving the customer’s problems can be expected to rise.

In the case of contact with a customer’s various departments and multiple management levels, it is important to be able to share information interdepartmentally and between sales offices regarding the current status of the relationship with the customer and sales activities. Since behavior-based control systems can decrease the ambiguity in sales activities, behavior-based control systems can be expected to promote interdepartmental information sharing regarding customer relationships and sales activities within a selling company. Therefore, the following hypothesis is suggested.

\[ \text{H}_2: \text{The more important contact with the various departments and management levels of a customer becomes, the more a behavior-based control system will be employed.} \]

It is anticipated that when attempting to develop a marketing strategy which emphasizes long-term relationship and cross-functional contact with the customer, interdepartmental information sharing based on behavior-based control systems is orientated. This is thought to have had an influence on the shift to behavior-based control in the last few decades.

**Methods**

Behavior-based control systems can be expected to promote interdepartmental information sharing regarding sales activities. We will now attempt to confirm whether Japanese companies looking forward to these kinds of effects have actually employed behavior-based control systems using the data from a mail questionnaire.

**The Sample**

The data we will use here is a survey conducted in June 1999. A mailing - including a cover letter, a stamped return envelope, and questionnaires - was sent to chief sales executives of the top 1000 companies according to sales from three prefectures (Aichi, Gifu, Mie) in Central Japan. Although 412 replies were received, considering the differences between manufacturing and service industries, 303 replies from sales
executives in the manufacturing industry were used for analysis. The industry of the responding firms are machinery 25.4%, construction 14.9%, primary metals 8.9%, food 8.3%, electronics 7.6%, nonmetallic mineral product 5.6%, textile 5.3%, chemicals 4.0%, paper 2.3%, agriculture and mining 0.7%, other manufactures 17.2%.

Measures

Control system classification criteria
Sales control systems were measured using a 3-point scale concerning the extent of monitoring and direction by sales managers. If the sales people were “left to conduct sales activities on their own,” this was thought of as an outcome-based control system, and if the manager gave them detailed instructions, that was taken as a behavior-based control system.

Importance of information exchange with the customer regarding product development
We asked the following question “Comparing to the average level in the industry, in sales activities, to what extent do you place emphasis on information exchange with the customer regarding product development?” We then split the results into two groups, those who responded that they put much emphasis on it, and those that did not. Although this was measured using a 3-point ordinal scale (much emphasis, medium, little emphasis), the answers of ‘little emphasis’ were so few that we integrated the last two answers.

Importance of contact with the various departments and management levels of a customer
Regarding the importance of the relationship with the customer’s various departments and management levels, we collected replies from the question “Comparing to the average level in the industry, in sales activities, to what extent do you place emphasis on your relationship with the various departments and the upper management levels of customer companies?” We then again broke these into those who placed much emphasis on it and those who did not. Although this was measured using a 3-point ordinal scale (much emphasis, medium, little emphasis), the answers of ‘little emphasis’ were so few that we integrated the last two answers.
Results

In order to test the hypotheses (H1 and H2), we examined the distributions of the sales control systems between two groups. The results were presented in Table 2 and Table 3. The Mann-Whitney U-test was used to compare the percentage of sales control systems between two groups as to the information exchange with the customer regarding product development and the contact with the various departments and the upper levels of management of the customer companies. Both p values of less than 0.05 were considered to indicate statistically significant differences.

Table 1.

Information sharing regarding product development and sales control systems

| To what extent do you place emphasis on information exchange with the customer regarding product development? | Sales Control Systems |
|---|---|---|---|
|   | Outcome-based | Medium | Behavior-based | Total |
| Much Emphasis | 29.6%  (61) | 48.1%  (99) | 22.3%  (46) | 100.0%  (206) |
| Less Emphasis | 42.4%  (39) | 43.5%  (40) | 14.1%  (13) | 100.0%  (92) |

Notes: Figures in parentheses represent the numbers of respondents. N=298.

Table 2.

Contact with the various departments/levels and sales control systems

| To what extent do you place emphasis on your relationship with the various departments and the upper management levels of customer companies? | Sales Control Systems |
|---|---|---|---|
|   | Outcome-based | Medium | Behavior-based | Total |
| Much Emphasis | 29.1%  (58) | 49.2%  (98) | 21.6%  (43) | 100.0%  (199) |
| Less Emphasis | 42.6%  (43) | 41.6%  (42) | 15.8%  (16) | 100.0%  (101) |

Notes: Figures in parentheses represent the numbers of respondents. N=300.
Therefore, H1 and H2 are supported. In other words, there is a tendency that the more important the information exchange with the customer for product development and the relationship with the various departments and management levels of the customer companies become, the less outcome-based control systems will be used and the more behavior-based control systems will be employed.

We can suggest the following. Firstly, in a situation where gathering information on the customer needs or providing technology information to the customer is regarded as important for product development, it becomes vital that the R&D department has an accurate and swift grasp on the information being communicated through the sales people regarding the product development. It is also important that they cooperate in sales activities by providing the salesforces with information regarding technology and products, or even participate in sales activities themselves. Secondly, when the selling company has contact with the various departments and management levels of the customer company, it often becomes important to share information on sales activities to the various departments and levels within the customer company among sales and service offices, factories and distribution centers of the selling company.

Through using a behavior-based control system in such cases to clarify the situation of sales activities, the cross-functional communication between the sales people and the various departments and levels can be smoothed out and create more effective interdepartmental coordination for the customer relationships.

**Conclusion**

Over the past few decades, several articles have emphasized that through behavior-based control systems sales managers can regulate the pursuit of short-term sales outcomes, which is the main advantage of behavior-based control systems. In other words, through behavior-based control systems, the pursuit of long-term relationships with customers can be secured, and future market development can be expected.

However, we presented another advantage of behavior-based control systems. Behavior-based systems can reduce the ambiguity of sales activities and make for ease of cross-functional information sharing and interdepartmental cooperation which need
information of sales process verified in detail.

The discovery we made was that regarding this advantage of behavior-based control systems Japanese companies at least tended to select behavior-based control systems based on the expectation of interdepartmental information sharing and cooperation.

Since the expectation of interdepartmental information sharing and cooperation has increased in recent years with the changing competitive environment, the transfer to behavior-based control systems based on this expectation has become an objective in many companies’ organizational changes. In other words, the more prominent the differentiation through customer relationships or customer service and emphasis on information technology are becoming, the more necessary strengthening customer adaptation strategy with coordination and cooperation between sales departments and R&D, production, and service departments is becoming. This has bred much interest in the effectiveness and efficiency of interdepartmental coordination achieved through the change to behavior-based control systems.

References


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