An Empirical Study of Factors Affecting Attitude of Salespeople toward Competitive Intelligence Activities

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Abstract

This paper aims to understand how salespeople's motivation and attitude to gather and transmit marketing intelligence to management may be influenced by individual (organizational commitment and participation in decision making,) and managerial (control system, role ambiguity, feedback and recognition) factors. Structural Equation Modelling (SEM) is employed to examine the causal relationship between proposed constructs. A survey involving a total of 240 respondents is conducted and confirmatory factor analysis used to determine the measurement efficacies. All the individual and managerial factors influence both motivation and attitude toward marketing intelligence by salespeople. These findings may provide useful guidelines for managers who wish to improve the information gathering activities of their salespeople.

Keywords: Salespeople, Competitive intelligence, Motivation, Attitude, Structural equation

Introduction

In the present complex environment and changing conditions within the organizations, managers are confronted with large volumes of information that they must face and incorporate into their decision making process. Therefore, Managing marketing information has become one of the most vital elements of effective marketing (Talvinen, 1995). To effectively manage this information, a company needs marketing information systems.

A marketing information system is a continuing and interacting structure of people, equipment and procedures to gather, sort, analyse, evaluate, and distribute pertinent, timely and accurate information for use by marketing decision makers to improve their marketing planning, implementation, and control (Kotler, 2002). Marketing information system is efficient tool providing past, present and projected information relating to internal operations and external intelligence (Armstrong and Kotler, 2007). It supports the planning, control, and operational
function in an organization by furnishing the right information, in the right form, at the right time to assist the decision maker (Armstrong and Kotler, 2007). Therefore, the quality of marketing management decision is linked with the quality, quantity, adequacy and speedy availability of data (Delone and Mclean, 1992).

Marketing system information consist of four integrated sub systems: the internal reporting systems, marketing research system, marketing intelligence system and marketing models (Kotler, 2000). The internal reporting system is a system that reports orders, sales, dispatches, inventory levels and cheques receivable and payable. The marketing research system is the systematic design, collection, analysis and reporting of data findings relevant to a specific marketing situation facing the company. The marketing intelligence system is a set of procedures and sources used to obtain everyday information about pertinent developments in the marketing environment, largely built up from data like reports from sales representatives. The marketing models analyses marketing data using statistical procedures and models. The marketing intelligence system is a set of procedures and data sources used by marketing managers to sift information from the environment that they can use in their decision making.

Salespeople have long been recognized as primary sources of marketing information. They are the most frequently used source for obtaining information on the competitors (Mellow 1989), and in the industrial sector, their activity of collecting and transmitting information from the market has been classified as being the forth on their tenth most important missions (Moncrief 1986). The information gathered on the field by the sales force should be considered as a contribution to the marketing intelligence subsystem, because most of the time, they deal with daily events on the market (Evans and Schlacter, 1985; Fletcher and Wheeler, 1989). However, only a minority of salespersons do actively allocate effort to their collection and dissemination within their company (Albaum, 1964; Robertson, 1974; Thietart and Vivas, 1981).

Robertson (1974) observes that few salespersons do really disseminate environmental information within their company (i.e. respectively 16.7% and 10.9% of the salespersons in the two observed companies). An exploratory study conducted by Le Bon (1997) on the French market with marketing and sales managers (i.e. 6 personal in-depth interviews and a focus group with 5 managers) has also revealed that it is always the same few salespersons who communicate marketing and sales intelligence information, and that their number is quite stable even if the whole sales force is stimulated. The above findings about varying salespeople behavior towards competitive intelligence activities within a same managerial context led us to hypothesize that their behavior towards such activities may fundamentally rely on their attitude towards this mission. The concept of attitude can be defined as a stable predisposition leading to a favourable or unfavorable response towards an object, person or a behavior (Fishbein and Ajzen 1975). If a person is favorably predisposed toward competitive intelligence activities, that favorable predisposition should lead to favorable behaviors with respect to the brand, service, or program.

The objective of this study is to identify factors (both individual and managerial) that might explain variations in the attitudes of salespersons toward competitive intelligence activities. We
propose and test a model to explain salespeople's behavior with regard to competitive intelligence activities and offer managers a means to understand and enhance their salespeople's motivation toward this task.

This paper is divided into five parts: the first and second parts contain the introduction and the literature review on salespeople's contribution to marketing intelligence activities. Moreover, previous research on the factors (both individual and managerial) that might explain variations in the behaviors of salespersons relative to marketing intelligence activities will be discussed. The Third part presents the research methodology used in this work. The final two parts (four and five) consists of the discussion, conclusions and practical implications of the research.

Theoretical Background

Salespersons Contribution To Competitive Intelligence

Competitive intelligence represents a continuous process of gathering data, information and knowledge about actors (competitors, customers, suppliers, government etc) which interact with organization in the business environment in order to support decision making process for enhancing competitiveness of organization (Anica and Cucui, 2009). The process of competitive intelligence is the action of gathering, analyzing, and applying information about products, competitors, suppliers, regulators, partners, and customers for the short- and long-term planning needs of an organization (Kahaner, 1998). The action of gathering include identification of all potential sources of information and then research and gather the right data legally and ethically from all available sources and put it in an ordered form.

Because of their boundary position, salespeople can offer their company direct access to important marketing information about competitors and customers (Lorge, 2006). Due to their daily presence in the field and favored relationships with customers, salespeople can be exposed to rumors about their customers’ or competitors’ projects, learn about new product launches before they take place, discover new products in test market areas, gather information about the discount and pricing policies of competitors, note changes in customers’ or distributors’ policies and behaviors, gather point-of-purchase information on promotional activities and effectiveness, and so forth (Lin and Hong, 2009). Despite the obvious advantage, historically salespeople have been underutilized as information gatherers (Cross et al., 2001; Tanner and Shipp, 2005). Albaum (1964) and Robertson (1974) noticed that important information about competitors' projects or customers' problems are not always communicated to the marketing and sales managers and that few salespersons do really disseminate competitive information within their company. It is thus important to understand why only a minority of salespersons gather and transmit information from field or feel concerned by competitive intelligence within their company.
Attitude Toward Competitive Intelligence

The social-psychology literature on behavioural research has established attitudes as important predictors of behavior, behavioral intentions, and explanatory factors of variants in individual behaviour (Fishbein and Ajzen, 1975; Ajzen, 1988). Attitude toward a behavior is defined as an individual’s positive or negative evaluation of performing the behavior. It involves an individual’s judgment that performing a behavior is good or bad and also a general evaluation that an individual is inclined or disinclined to perform the behavior (Ajzen and Fishbein, 1980). An overall evaluation of an object that is based on cognitive, affective, and behavioural information. From a conceptual point of view, attitude appears as a multidimensional construct composed of cognition and affect and which implies conation (Rosenberg and Hovland, 1960).

Firstly, the cognitive aspect, which involves beliefs and information that the individual has about the object. Secondly, the affective aspect, which involves the person’s feeling, or affect – positive or negative – about an object. Finally, the behaviour aspect concerns behavioral inclinations, intentions, with respect to the attitude object.

Two theories have been applied to explain individual behaviour: Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB). The Theory of Reasoned Action (TRA) argues that individuals’ beliefs define their attitudes and thereby shape their intentions, which in turn, guide their behavior. Extended from TRA, the Theory of Planned Behavior (TPB) suggests that behaviour is dependent on one’s intention to perform the behavior. Intention is determined by an individual’s attitude (beliefs and values about the outcome of the behavior) and subjective norms (beliefs about what other people think the person should do or general social pressure). Behavior is also determined by an individual’s perceived behavioural control, defined as an individual’s perceptions of their ability or feelings of self-efficacy to perform behavior.

This relationship is typically dependent on the type of relationship and the nature of the situation. Further, the Technology Acceptance Model (TAM), which is adapted from TPB, has been widely used to predict user acceptance and usage behavior (Davis, 1989). In TAM, beliefs of individuals determine their attitudes toward using a particular system and, in turn, these attitudes foster their intention to use it. This intention influences the decision of actual technology usage. These causalities have been thoroughly studied and broadly accepted (Suh and Han, 2002). The TAM has shown that motivation formulates the mechanism of human behavior and action.

Many previous Information systems-related behavioral studies have used the belief-attitude-intention-behavior chain represented by the TAM formulation to successfully predict technology acceptance behavior (Saade and Bahli, 2005). In addition, past studies investigating the role of motivation in Internet use have also confirmed that it has a positive impact on new technology adoption and use (Stafford & Stern, 2002; Vandenbroeck et al., 2008). Moreover, instrumental use of media and technology with greater motivation has been found to produce stronger attitudinal and behavioral effects on the use of media and technology (Rubin, 2002).
Hence, it is plausible to hypothesize that salespeople's motivation towards competitive intelligence activities may affect their attitudes.

The salesperson's attitude towards competitive intelligence is defined as: Favorable or unfavorable predisposition of the salesperson towards acquisition, evaluation and transmission of information related to marketing and sales intelligence (Le Bon and Merunka, 1998). Attitude towards competitive intelligence activities also includes cognitions about competitive intelligence activities (e.g. the salesperson's beliefs about the importance of doing competitive intelligence), affection toward competitive intelligence (e.g. the salesperson's appreciation or disdain for looking for competitive information), and behaviour toward competitive intelligence (e.g. the salesperson's plan to do competitive intelligence) (Le Bon and Merunka, 2006).

Contemporary theorists have come to the consensus that the main characteristic of an attitude is its evaluative nature, which becomes tangible in favorable or unfavorable reactions to an object, person, institution or event (Eagly and Chaiken, 1993). Researchers have also largely agreed that an attitude, like all theoretical concepts in psychology, is a latent, hypothetical construct that is not directly observable. In consequence, it has to be inferred on the basis of tangible responses to an attitude stimulus (Ajzen, 2005).

**Motivation Toward Competitive Intelligence**

This study aimed to explore the psychological factors that might be related to the salesperson's attitude towards competitive intelligence activities. One of the factors is motivation, which refers to the process whereby goal-directed activity is instigated and sustained (Schunk et al., 2008). Motivation has been defined as the amount of effort expanded in work related tasks (Campell and Pritchard, 1979). It is the psychological state or predisposition of the individual with the respect to choices involving the direction, intensity, and persistence of behaviour (Ilgen and Klein, 1988; Naylor et al., 1980).

Researchers have identified two broad categories of motivational theories: content theories and process theories. Content theories focus on factors internal to the individual in order to explain why people are motivated in different ways and by different work settings. In the sales performance context, for example, these theories may assert that promotions, salary increases, job security, recognition, and supportive leadership will lead to an improved job performance. Process theories try to explain how people initiate, direct and maintain their motivation. Examples of these variables are incentive, drive, reinforcement, and expectancy. Next, these theories attempt to describe how such variables interact to influence particular dependent variables (e.g., motivation). The examples of process theories are drive theory, reinforcement theory, expectancy theory, and equity theory. Expectancy theory has been broadly applied to explain salespeople's performance in various aspects of their job (Churchill et al., 1985; Vroom, 1964; Walker et al., 1977).

The expectancy theory based on these assumptions has three key elements: expectancy, instrumentality, and valence. A person is motivated to the degree that he or she believes that
(a) effort will lead to acceptable performance (expectancy), (b) performance will be rewarded (instrumentality), and (c) the value of the rewards is highly positive (valence).

Motivation = Expectancy x Instrumentality x Valence

Expectancy is an employee’s estimate of the probability that one's effort (E), will give the expected performance (P) goal". Expectancy is based on probabilities and ranges from 0 to 1. If an employee sees no chance that effort will lead to the desired performance level, the expectancy is 0. On the other hand, if the employee is completely certain that the task will be completed, the expectancy has a value of 1. Generally, employee estimates of expectancy lie somewhere between these two extremes.

Instrumentality is an employee’s estimate of the probability that a given performance level is related to a given outcome. In other words, a employee’s belief that a given output will facilitate a given reward (outcome). As with expectancy, instrumentality ranges from 0 to 1. For example, if an employee sees that a good performance rating will always result in a salary increase, the instrumentality has a value of 1. If there is no perceived relationship between a good performance rating and a salary increase, then the instrumentality is 0.

Valence is the strength of an employee’s preference for a particular reward. Thus, salary increases, promotion, peer acceptance, recognition by supervisors, or any other reward might have more or less value to individual employees. Unlike expectancy and instrumentality, valences can be either positive or negative. If an employee has a strong preference for attaining a reward, valence is positive. At the other extreme, valence is negative. And if an employee is indifferent to a reward, valence is 0. The total range is from -1 to +1.

In the context of this study, Expectancy theory states that a salesperson will exert a certain amount of effort toward marketing intelligence activities if he or she estimates that the effort will lead to a specific performance (expectancy: probability of being successful after an effort), which will imply a real reward (instrumentality: probability of a performed effort being recognized within the company) that he or she really desires (the perceived value of the rewards). The potential relationship between motivation and attitude has been specifically suggested by Le Bon (1981) in the case of the collection and diffusion of marketing intelligence. Therefore, we propose:

$H_1$: Motivation has a positive effect on salespeople’s attitude toward competitive intelligence activities.

Recent studies, suggest that salesperson motivation should be viewed as the process whereby several attitudinal components interact to form an individual’s motivation (Churchill 1979; Olivier 1974; Olivier and Brief 1977). Moreover, motivation is viewed as a variable which can be manipulated or influenced by management. An examination of the organizational literature reveals those salespeople's motivation and attitude toward marketing intelligence activities can be influenced by individual (organizational commitment and participation in decision making),
and managerial (control system, role ambiguity, feedback and recognition) factors. We now describe the individual and managerial variables included in the model (figure 1).

**Organizational Commitment**

Organizational commitment is generally considered a bond or attachment between the individual and the organization. Organizational commitment can be defined as attitude in the form of an attachment that exists between the individual and the organization, and is reflected in the relative strength of an employee’s psychological identification and involvement with the organization (Mowday et al., 1979). Blaud and Boal (1987) and Chonko (1986) proposed that two perspectives can be identified in the psychological approach. In one perspective, commitment is viewed primarily as function of individual behaviour and individuals are postulated to become “committed” to the organization through their action and choices over time (Becker 1960). In the second perspective, commitment is thought to develop when people begin to identify with the organization and are willing to exert effort toward organizational goals and values (Porter et al., 1974). Meyer et al. (1993) propose that three distinct themes can be identified in the psychological approach: first, as a psychological state that is mainly an attachment between employee and organization (affective); second, as a perceived cost associated with leaving the organization (continuance); and third, as an obligation to remain a member of the organization (normative).

Affective commitment is an individual's attachment to, identification with, and involvement in an organization. The degree of such commitment depends on the strength of positive feelings toward the organization and willingness to increase one's emotional bond to that organization (Mowday et al., 1979). This kind of commitment is often a result of events, actions, and policies by which the organization creates positive emotional connections with members of the work group. Continuance or calculative commitment that derives from socioeconomic factors (Swailes, 2002) reflects the employees' awareness of the relative benefits associated with staying or leaving an organization. Employees with continuance commitment may perform only as required to keep their jobs. Normative commitment arises from an individual's sense of obligation to the organization and reflects the degree that one's values and beliefs conform to those of the organization (Meyer and Allen, 1997). When goals or values are shared, the individual is more likely to regard obedience to the authority and norms of the group as appropriate.

Researchers stated also that organizational commitment can be defined in one of two ways (Mathieu and Zajac, 1990). The first defines organizational commitment as an attitudinal concept, and is called attitudinal commitment. It is underscored by identification with the organization’s mission, a willingness to put forth considerable effort in assisting the organization to achieve its goals, and a strong desire to maintain membership in the organization. The second approach, calculative commitment, defines organizational commitment as a calculated behavior built around the concept of side bets or investments the individual has in the organization.
This concept is important for marketing intelligence activities, which are mainly nonsales tasks for which salespeople are never sure of the outcome (will they find relevant information, and will they be recognized?). We argue that some salespersons will devote effort to this mission because they feel affectively and emotionally concerned about their company's best interests and competitiveness (Chonko, 1986). Because of their sense of accomplishment in terms of the well-being of the organization (Tyagi, 1985), salespeople's organizational commitment should affect attitude, behavioral effort and serve as a complement to motivation. A positive impact of organizational commitment on salespersons' attitude toward competitive intelligence activities has been established by Le Bon (1996). We hypothesize a direct influence of organizational commitment on salespersons' attitude toward competitive intelligence activities. Therefore:

H2 - organizational commitment has a positive effect on salespeople’s attitude toward competitive intelligence activities

Participation In Decision Making

Participation in decision making is defined as the degree to which an employee is able to influence decisions concerning his/her job (Hage and Aiken, 1967). Participation in decision making may help employee better understand managers’ preoccupations and informational needs. This participation also signals management's recognition of salespeople's role and potential contribution to competitive intelligence activities (Le Bon and Meriunka 2006). In previous research (Thietart & Vivas, 1981 and Le Bon et Merunka, 2006), participation in decision making has been found to be positively related to the speed of transmission of environmental information by salespeople and a positive impact of participation in decision making on salespersons’ attitude toward competitive intelligence activities has been established by Le Bon (1996). We expect participation in decision making to influence salespeople's attitude toward competitive intelligence activities. It follows:

H3 - Participation in decision making will positively influence salespeople’s attitude toward competitive intelligence activities.

Feedback

Feedback is one of the most frequently concepts used in the fields of technical and social sciences. The concept of feedback is explained in different areas in different forms. In a performance evaluation system, it is the prime information to achieve development by confirming or rejecting a performance or behaviour (Bee and Bee, 1997). From the aspect of interaction between individuals, how others perceive and evaluate an individual's behaviour is explained by related data. While there are many types of feedback (task, performance, competence), it will be defined as the degree to which the employee receives clear information about his or her performance (Hackman and Oldham, 1975). In a sales context, Teas and Horrell (1981) define it similarly “feedback is the degree to which salespeople receive information that indicate the quality of their performance”.

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For salespeople to gather and transmit reliable information about competitors or about customers, they need to know that their effort is not meaningless. They require feedback, which is defined as return signals that the information has reached its addressee and is useful or has been used (Le Bon and Merunka, 1990). Providing feedback can reassure salespeople about the usefulness of their participation in marketing intelligence activities. Empirical research has found that feedback is an important predictor of sales force motivation toward competitive intelligence activities (Festervand et al., 1988). Feedback may influence both instrumentalities (i.e., being sure of management's involvement) and valence for reward (i.e., being a key actor in the intelligence gathering process). These relationships imply a direct link between feedback and motivation to perform competitive intelligence activities. Therefore, we propose to revisit previous findings with a sample of salespeople and posit:

H₄ - Feedback has a positive effect on salespeople’s motivation toward competitive intelligence activities

Managerial Recognition

Recognition can be defined as the set of existing rules and policies for commending or thanking salespeople for their contribution to competitive intelligence activities (Le Bon and Merunka, 2006). Recognition is about noticing and honoring. It may encourage and support an action but does not establish the instrumentality that reward does. Flynn (1998) argued that rewards and recognition programs keep high spirits among employees, boosts up their morale and create a linkage between performance and motivation of the employees. Managerial recognition is positively related to the diffusion of information and various studies concluded that recognition has positive effect on salesperson’s motivation (Wotruba and Mangone, 1979). In conditions in which they have a positive personal valence for the proposed recognition system, managerial recognition will have a positive impact on motivation toward competitive intelligence activities. Hence:

H₅ - Recognition has a positive effect on salespeople’s motivation toward competitive intelligence activities

Salesforce Control System

The control of the salesforce may be defined as the degree of monitoring, evaluation and reward that those in charge of the control exert on salespeople so that the latter develop their tasks and responsibilities and consequently, the company's objectives are achieved (Jaworski, 1988; Jaworski et al., 1993).

The sales literature gives two system classifications: behavior-based control system and outcome-based control system (Anderson and Oliver, 1987). A based behavior control system requires a considerable degree of sales person monitoring, directing, evaluating and rewarding by sales managers (Baldauf et al., 2001). This type of control is helpful in encouraging collaborative relationships with customers, coordinating team selling and building internal
relationships among business functions. On the other hand, an outcome-based control system requires little monitoring, directing, evaluating and rewarding of salespeople by the sales manager, and the salespeople are responsible for their results (Baldauf et al., 2001). The selling process is not imposed, leaving the sales person free to decide which behavior is best suited for making a sale. However, a lack of direction may harm the organization in the long term since the sales person may be disinclined to participate in nonselling tasks (Anderson and Oliver, 1987). Outcome control approximates a market contract arrangement which uses incentives, usually in the form of commission, to reward salespeople in proportion to their sales outcomes (e.g., sales volume, revenue, or quota attainment).

A behavior-based control system tries to remove the pressure traditionally brought to bear by an outcome-based one through the process of extrinsic motivation and thereby develops salespeople’s identification with their company (Anderson and Oliver, 1987; Cravens et al., 1993). Le Bon and Merunka (2006) demonstrate empirically that a behavior-based control system has a positive impact on salespeople's motivation toward competitive intelligence activities. We therefore propose that a behavior-based control system will directly influence salespeople’s motivation toward marketing intelligence activities.

H₆: Behavior-based control system has a positive effect on salespeople’s motivation toward competitive intelligence activities.

**Role Ambiguity**

Rizzo et al (1970) define role ambiguity as the situation where an individual does not have clear direction about the expectations of his or her role in the job or organization. Role ambiguity generally can be defined as a perceived lack of job-related information (Breaugh and Colihan, 1994; Rizzo et al 1970). Job related information can include performance expectations, goals, assignments, authority, responsibilities, job duties, and other job conditions. Consequently, unclear company directives and uncertainty about duties and relationships increase role ambiguity (Michaels and Dixon, 1994). Empirical research has shown that role ambiguity had a negative effect on salespeople’s motivation toward competitive intelligence activities (Churchill et al., 1993). Therefore:

H₇: Role ambiguity has a negative effect on salespeople’s motivation toward competitive intelligence activities.
Figure 1. Conceptuel Model Research and hypothesis research

Methodology

Measures

The survey questionnaire was designed on the basis of measurement scales used by Le Bon and Merunka (2006). All constructs were represented by composite measures of multi-item scales.
The dependent variable, attitude towards competitive intelligence was measured using ten items derived from Le Bon and Merunka (2006) with scale ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point. Seven items for perceived necessity of closely monitoring the market and three items for eagerness to search for market information combined into one scale for ten items. The items for motivation toward competitive intelligence using expectancy theory was measured by three scales: expectancy, instrumentality, and valence for extrinsic rewards combined into one scale, taken from Teas (1981), Tyagi (1985), and Ingram et al. (1989). This measure consisted of six items, with scale ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point.

The role ambiguity measures were derived from Rizzo et al (1970) used widely in the sales context (Churchill et al, 1993). The role ambiguity measure consisted of six items, with scale with scale ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point. Behavioral control system measures were derived from Oliver and Anderson's (1994) with scale ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point. The Behavioral control system contained twelve items. The recognition measure was measured by 3 items, with scale, ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point adopted from by Le Bon and Merunka (2006). Feedback was measured by 2 items, with scales ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point adopted from by Le Bon and Merunka (2006). The Organizational commitment measure consisted of ten items, with scale ranging from “strongly disagree” (1) to “strongly agree” (5) with “neutral” (3) as middle point. Finally, participation in decision making measures was taken from Oliver and Anderson's (1994) and consisted of four items with scale, ranging from “strongly disagree” (1) to “strongly agree” (5).

Appendix A lists all the items used in this study. The questionnaire was initially developed in English and the final version was translated into French. In order to ensure the equivalence of measurements in the two languages, the translation was reviewed by a third party. The questionnaire was finalized after correcting a few minor differences in wording in the two languages.

**Sample And Data Collection**

The sample was selected from a list of the 300 largest companies in Tunisia, operating in the consumer goods, industrial and services sectors, compiled by the Agency of Promotion of Industry (API). A questionnaire survey was used to collect data for this study. The questionnaire was administered by meeting the respondents on a one-to-one and were asked to circle the response which best described their level of agreement with the statements. Two hundred usable responses were collected, yielding a response rate of 80% (240/300). The data analysis was carried out in accordance with a two step methodology of structural equation modeling (SEM) in which the measurement model is first developed and evaluated separately from the full structural equation model (Anderson and Gerbing, 1988).
**Measurement Model**

The first step in the data analysis was to establish the unidimensionality, reliability, convergent validity, and discriminant validity of the constructs with confirmatory factor analysis (CFA) using LISREL software (Version 8.80). The uni-dimensionality of constructs was investigated by means of exploratory factorial analysis (Hair et al., 1998). The principal components extraction method was adopted and the results were submitted to the Varimax rotation method. The number of factors was restricted to the exact number (08) of constructs analyzed. Table 1 shows that all reliability measures were well above the recommended level of 0.70, thus indicating adequate internal consistency (Nunnally, 197). Convergent validity is demonstrated when items load highly (loading > 0.50) on their associated factors. Based on these criteria, thirteen items of different constructs had to be dropped from the subsequent analysis. Table 1 shows that all of the measures have significant loadings that load much higher 0.5 (Hair et al., 1998 suggest a lower limit of 0.5) and there were no cross-loadings superior to 0.3.

**Table 1.** Confirmatory Factor Analysis Results for Measurement Model

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Factor loading</th>
<th>Cronbach alpha</th>
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<tbody>
<tr>
<td>Attitude (ATT)</td>
<td>ATT1. I must monitor for Marketing and Sales Managers all facts and behaviours that concern competitors. ATT2. When I am on the field, I must find out any factors that could threaten the competitive position of my company. ATT3. The reactivity of my company certainly does not depend on the information the salespeople can transmit from the field. ATT4. I don't think that information gathered from the field could really be of use for the Marketing and Sales Managers. ATT5. Marketing and Sales Managers don't need to be constantly informed on what's going on in the field. ATT6. I like to look for information that could interest people from headquarters. ATT7. When I'm on the field, I like to watch, listen and collect here and there, any information on what could interest my company.</td>
<td>0.868</td>
<td>0.821</td>
</tr>
<tr>
<td>Motivation (MOTIV)</td>
<td>MOTIV1. With regard to my customers’ portfolio, if I make an effort to obtain relevant information for the Marketing and</td>
<td>0.920</td>
<td></td>
</tr>
</tbody>
</table>
Sales Managers, the likelihood of success is.
(expectancy: exp1)
MOTIV1. If I make an effort to obtain reliable confidential information on the competitors or on my customers, the chances of being successful are. (expectancy: exp2)
MOTIV1. In my company, the likelihood that I will be recognized or rewarded for having transmitted good information from the field is. (instrumentality: inst1)
MOTIV1. When evaluating my performance, the likelihood that managers in my company will consider my ability to transmit good information from the field is. (instrumentality: inst2)
MOTIV1. I try to gather and transmit competitive information from the field because my company values this mission (recognition, rewards). (valence for extrinsic reward: ver1)
MOTIV1. I would not spend time gathering and transmitting competitive information if my company did not recognize this effort. (valence for extrinsic reward: ver2)

<table>
<thead>
<tr>
<th>Role Ambiguity (AMB)</th>
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<tbody>
<tr>
<td>AMB1. I feel certain about What I am supposed to do.</td>
<td>0.864</td>
<td>0.864</td>
</tr>
<tr>
<td>AMB2. I have clear, planned objectives.</td>
<td>0.887</td>
<td>0.945</td>
</tr>
<tr>
<td>AMB3. I know that I have divided my time properly.</td>
<td>0.845</td>
<td>0.845</td>
</tr>
<tr>
<td>AMB4. I know what my responsibilities are.</td>
<td>0.729</td>
<td>0.729</td>
</tr>
<tr>
<td>AMB5. I know exactly what is expected of me.</td>
<td>0.788</td>
<td>0.788</td>
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<tr>
<th>Behavior control system (SYST)</th>
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<th></th>
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<tbody>
<tr>
<td>SYST1. My supervisor makes sure everyone knows what to do and how to do it.</td>
<td>0.826</td>
<td>0.826</td>
</tr>
<tr>
<td>SYST2. My supervisor stays in close contact with me.</td>
<td>0.692</td>
<td>0.692</td>
</tr>
<tr>
<td>SYST3. My supervisor rarely asks me for information on how I'm doing.*</td>
<td>0.770</td>
<td>0.770</td>
</tr>
<tr>
<td>SYST4. I don't have much contact with my company's management.*</td>
<td>0.829</td>
<td>0.829</td>
</tr>
<tr>
<td>SYST5. Management here stays very well informed of salespeople's activities.</td>
<td>0.724</td>
<td>0.724</td>
</tr>
<tr>
<td>SYST6. I feel isolated from management.*</td>
<td>0.873</td>
<td>0.873</td>
</tr>
</tbody>
</table>
SYST7. I don't get much day-to-day contact with management.*
SYST8. When management rates my performance, they take a lot of things into consideration.
SYST9. Management decides who's good by looking strictly at each salesperson's bottom line.*

(continued on next page)

Table 1 (continued)

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<tr>
<th>Recognition (RECO)</th>
<th>RECO1. In our company, we know the names of salespeople who transmit good information from the field.</th>
<th>0.680</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RECO2. Salespeople who transmit good information from the field are publicly congratulated.</td>
<td>0.805</td>
</tr>
<tr>
<td></td>
<td>RECO3. Salespeople who transmit good information from the field are always thanked.</td>
<td>0.827</td>
</tr>
<tr>
<td>Feedback (FEED)</td>
<td>FEED1. We are always informed when information we transmit from the field reach their addressee.</td>
<td>0.898</td>
</tr>
<tr>
<td></td>
<td>FEED2. We are always informed when information we transmit from the field are used.</td>
<td>0.898</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.706</td>
</tr>
<tr>
<td>Participation in decision making (PARTI)</td>
<td>PARTI1. Salespeople and management tend to hammer out issues together in this organization.</td>
<td>0.920</td>
</tr>
<tr>
<td></td>
<td>PARTI2. My boss actively seeks my ideas all the time.</td>
<td>0.909</td>
</tr>
<tr>
<td></td>
<td>PARTI3. Management make decisions without much regard for what salespeople think.*</td>
<td>0.777</td>
</tr>
<tr>
<td>Organizational commitment (COMM)</td>
<td>COMM1. I find that my values and the organization's values are very similar.</td>
<td>0.755</td>
</tr>
<tr>
<td></td>
<td>COMM2. I talk up this organization to my friends as a great organization to work for.</td>
<td>0.798</td>
</tr>
<tr>
<td></td>
<td>COMM3. I would accept almost any type of job assignment in order to keep working for this organization.</td>
<td>0.764</td>
</tr>
<tr>
<td></td>
<td>COMM4. For me, this is the best of all possible organizations for which to work.</td>
<td>0.678</td>
</tr>
<tr>
<td></td>
<td>COMM5. I find that my values and the</td>
<td>0.755</td>
</tr>
</tbody>
</table>
organization's values are very similar.

The following measured indices was assessed the overall model fit to ensure convergent and discriminant validity. Seven common model-fit measures were used to assess the model’s overall goodness-of-fit: the ratio of $\chi^2$ to degrees-of-freedom (df); Root Mean Square Error of Approximation (RMSEA); Standardized Root Mean Square Residual (SRMR); Normalized Fit Index (NFI); Non-Normalized Fit Index (NNFI); Comparative Fit Index (CFI) and Incremental Fit Index (IFI). As shown in Table 3, all the model-fit indices ($\chi^2$/df = 1.88; RMSEA = 0.058; SRMR = 0.07; NFI = 0.92; NNFI = 0.95; CFI = 0.96 and IFI = 0.96) exceeded their respective common acceptance levels suggested by previous research, thus demonstrating that the measurement model exhibited a fairly good fit with the data collected and we could proceed to examine the path coefficients of the structural model.

Table 2. Fit indices for measurement model

<table>
<thead>
<tr>
<th>Fit Indices</th>
<th>Recommended value</th>
<th>Observed value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$/df</td>
<td>≤ 3</td>
<td>1.88</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.058</td>
</tr>
<tr>
<td>SRMR</td>
<td>≤ 0.08</td>
<td>0.075</td>
</tr>
<tr>
<td>NFI</td>
<td>≥ 0.9</td>
<td>0.92</td>
</tr>
<tr>
<td>NNFI</td>
<td>≥ 0.9</td>
<td>0.95</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.9</td>
<td>0.96</td>
</tr>
<tr>
<td>IFI</td>
<td>≥ 0.9</td>
<td>0.96</td>
</tr>
</tbody>
</table>

**Structural Model**

The structural model shows the relationships between constructs and specifies the constructs that are related to each other (Hair et al., 1998). The fit indices, as shown in Table 3, are within accepted levels. The ratio $\chi^2$ to degrees of freedom at 2.07, RMSEA at 0.066, SRMR at 0.08, NFI at 0.90, NNFI at 0.93, CFI at 0.94 and IFI at 0.94 have clearly exceeded the minimum recommended values suggested for a good model fit (Hair et al., 1998) implying the adequacy of our model for further statistical analysis, including its causal link evaluation.
Table 3. Fit indices for structural model

<table>
<thead>
<tr>
<th>Fit Indices</th>
<th>Recommended value</th>
<th>Observed value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$/dl</td>
<td>$\leq 3$</td>
<td>2.076</td>
</tr>
<tr>
<td>RMSEA</td>
<td>$\leq 0.08$</td>
<td>0.066</td>
</tr>
<tr>
<td>SRMR</td>
<td>$\leq 0.08$</td>
<td>0.080</td>
</tr>
<tr>
<td>NFI</td>
<td>$\geq 0.9$</td>
<td>0.90</td>
</tr>
<tr>
<td>NNFI</td>
<td>$\geq 0.9$</td>
<td>0.93</td>
</tr>
<tr>
<td>CFI</td>
<td>$\geq 0.9$</td>
<td>0.94</td>
</tr>
<tr>
<td>IFI</td>
<td>$\geq 0.9$</td>
<td>0.94</td>
</tr>
</tbody>
</table>

Fig. 2 shows the standardized path coefficients with their respective significance levels for each construct. All of the hypothesized paths in our model are significant at the pb.01 level. The relationship between salespeople's motivation and attitude toward intelligence activities was significant ($\beta=0.25$, $p<0.01$). Thus, $H_1$, is supported. Organizational commitment has a significant influence on the salespeople's attitude toward gathering and transmitting information from the field ($\beta=-0.29$, $p<0.01$), and $H_2$ is supported. Participation in decision making has a positive impact on salespeople's attitude toward intelligence activities ($\beta=0.15$, $p<0.01$). Thus, $H_3$, is supported. Feedback has a positive impact on the salespeople's motivation toward gathering and transmitting information from the field ($\beta=0.17$, $p<0.01$). Thus, $H_4$, is supported. Recognition has a positive impact on the salespeople's motivation toward marketing intelligence ($\beta=0.27$, $p<0.01$). Thus, $H_5$, is supported. A behavioural control system has a significant influence on the salespeople's motivation toward marketing intelligence activities ($\beta=0.13$, $p<0.01$). Thus, $H_6$, is supported. Finally, role ambiguity has a negative impact on the salespeople's motivation toward gathering and transmitting information from the field ($\beta=0.15$, $p<0.01$). Thus, $H_7$, is supported.
Figure 2. Results of structural model

* Indicates that the variable is significant at the 1%.
Discussion

By empirically testing the model, it has been demonstrated that most of the factors in the proposed model have a significant influence on both motivation and attitude toward marketing intelligence activities. This study shows that motivation has a significant effect on salespeople's attitude toward competitive intelligence activities. This result was consistent with Le Bon and Merunka (2006). Organizational commitment has a significant effect on salespeople's attitude toward competitive intelligence activities. It is consistent with Le Bon. (1998) finding, which suggests there is a significant impact of motivation on the salespeople's attitude toward competitive intelligence activities. Participation in decision making has a significant effect on salespeople's attitude toward competitive intelligence activities. The result was consistent with Thietart and Vivas (1981) and Le Bon (1998) finding. Feedback has a significant effect on salespeople's motivation toward competitive intelligence activities. This result contradicts the prior studies (Wotruba and Mangone (1979); Le Bon and Merunka (2006). However, it is consistent with Festervand et al. (1988) finding, which suggests that feedback as an important determinant of sales force motivation toward competitive intelligence activities. Recognition has a significant effect on salespeople's motivation toward competitive intelligence activities. This result contradicts the prior studies (Le Bon and Merunka (2006)). However, it is consistent with Wotruba and Mangone (1979) finding, which suggests that recognition is positively related to the diffusion of information. Behavior control system has a significant effect on salespeople's motivation toward competitive intelligence activities. However, it is consistent with Cravens et al. (1993) and Le Bon and Merunka (2006) finding. Finally, role ambiguity has a negative significant effect on salespeople's motivation toward competitive intelligence activities. It is consistent with Churchill et al. (1993) finding.

Conclusion, Implications And Future Study

The aim of our research was to understand how salespeople's motivation and attitude to gather and transmit competitive intelligence to management may be influenced by individual (organizational commitment and participation in decision making,) and managerial (control system, role ambiguity, feedback and recognition) factors.

The results of this study indicate that all the individual and managerial factors have a differential influence on the motivation and attitude toward competitive intelligence by salespeople. Participation in decision making and organizational commitment has a positive effect on salespeople’s attitude toward competitive intelligence activities. Moreover, sales force control system, recognition and feedback have a positive effect on salespeople's motivation toward competitive intelligence activities. Role ambiguity is negatively related to salespeople’s motivation toward competitive intelligence activities. Several implications both theoretically and managerially can be derived from the results of this research.

From a theoretical standpoint, the salesperson’s attitude toward competitive intelligence activities depends on his/her motivation to allocate effort to the collection of competitive
information. The salesperson’s attitude is influenced by his/her organizational commitment and participation in the company’s decision making process, whereas his/her motivation is influenced by managerial feedback, recognition, behaviour control system, and role ambiguity. Further, the study shows that motivation was an important determinant in explaining a salesperson’s attitude toward competitive intelligence activities. The problem of motivation is one of the main fields of research in organizational behavior from the sales force. Indeed, the main descriptive and explanatory models of the performance of salespeople do not incorporate the concept of attitude (Walker et al., 1,977; Weitz et al., 1986). However, this concept could be very useful to explain the level of effort that salespeople exert toward competitive intelligence activities.

From a managerial standpoint, two managerial implications can be derived from this research for managers who wish to improve the information gathering activities of their salespeople: creating motivation and developing favorable attitude toward marketing intelligence activities.

The model of expectancy theory provides guidelines for enhancing salesperson’s motivation toward competitive intelligence: increase expectancies, make performance instrumental toward positive outcomes and identify valent outcomes (Greenberg, 2011; Hellriegel and Slocum, 2011; McShane and Von Glinow, 2011; Nadler and Lawler, 1983).

Managers should try to increase the belief that salespeople are capable to gathered good information about competitors or about customers. Ways of doing this include: provide the required training and clarify job requirements; provide sufficient time and resources; assign progressively more difficult tasks based on training; follow salespeople’ suggestions about ways to change their jobs; intervene and attempt to alleviate problems that may hinder effective performance; provide examples of salespeople’ who have mastered the task; and provide coaching to salespeople’ who lack self-confidence. In essence, leaders need to make the desired performance attainable. Good managers not only make it clear to employees what is expected of them but also help them attain that level of performance.

Managers should try to increase the belief that good performance will result in valued rewards. Ways of doing this include: measure job performance accurately; describe clearly the rewards that will result from successful performance in gathering good information from the field; describe how the salespeople’ rewards were based on past performance; provide examples of other salespeople’ whose good performance has resulted in higher rewards. In essence, managers should link directly the specific performance they desire to the rewards desired by salespeople’. It is important for salespeople’ to see clearly the reward process at work. Concrete acts must accompany statements of intent.

Managers should try to increase the expected value of rewards resulting from desired performance. Ways of doing this include: distribute rewards that salespeople’ value, and individualize rewards. It is misleading to believe that all salespeople’ desire the same rewards. Some salespeople’ may value a promotion or a pay raise, whereas others may prefer additional vacation days. When pay expectations are not met, salespeople’ may believe that the
organization has violated its obligations and disregarded its commitments (Lester et al. 2002). However, this does not mean that salespeople expect to receive the highest monetary reward; rather, they expect a fair level of reward relative to their performance (Denton 1991). Thus, if every salesperson received the same reward regardless of performance, it not only would raise issues of inequity and distress but also would likely undermine salespeople’s motivation to raise their effort and performance level (Denton, 1991).

The above findings about varying salespeople behavior towards competitive intelligence led us to consider that their behavior towards such activities may fundamentally rely on their attitude towards this mission. This finding suggests specific actions that managers may take to develop favourable attitude to collect information from the field by salespeople (Liu and Comer, 2007): make certain salespeople understand the purpose of this mission and how the information is used by the company, be certain that salespeople understand the value of the information and how it is used by the company, be certain that salespeople understand that gathering and transmitting competitive information is an important part of their job, be certain that salespeople receive rewards for good information gathering and transmitting and encourage upper level management to recognize the contributions of the sales force and to demonstrate their confidence in their salespeople as professionals.

There are several limitations in this research study. First, the factors selected in this study may not cover all factors that could influence salespeople’s motivation and attitude toward competitive intelligence activities. Therefore future studies can consider others factors, which might have influence salespeople’s motivation and attitude toward competitive intelligence activities. Second, the characteristics of the organization such as, sector activity, size were not taken in this research. Future researchers can thus conduct a comparison between organizations for future studies.

Many companies have introduced different types of benefit plans-incentive systems that allow salespeople to select their fringe benefits from a menu of available alternatives (straight salary, straight commissions, or a combination of salary and commissions). Another issue that may surface with expectancy theory is the need for leaders to minimize the presence of countervalent rewards-performance rewards that have negative valences. An important research opportunity can be derived of this problem concerning the nature of the contract in which one party (the principal) delegates work to another (the agent/salesperson), who performs that work. An agency problem is associated, due to the divergence of interests between the principal (the company) and the agent (the seller) and secondly, the uncertainty, the imperfect observability of effort of the agent and potential costs of establishing and enforcing contracts.

**References**


Appendix A. Summary of measurement scales

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude (ATT)</td>
<td>ATT1 I must monitor for Marketing and Sales Managers all facts and behaviours that concern competitors.</td>
</tr>
<tr>
<td></td>
<td>ATT2 When I am on the field, I must find out any factors that could threaten the competitive position of my company.</td>
</tr>
<tr>
<td></td>
<td>ATT3 The reactivity of my company certainly does not depend on the information the salespeople can transmit from the field.</td>
</tr>
<tr>
<td></td>
<td>ATT4 I don't think that information gathered from the field could really be of use for the Marketing and Sales Managers.</td>
</tr>
<tr>
<td></td>
<td>ATT5 Marketing and Sales Managers don't need to be constantly informed on what's going on in the field.</td>
</tr>
<tr>
<td></td>
<td>ATT6 It is not because I face a new fact or a change on the field that I have to immediately inform the headquarters.</td>
</tr>
<tr>
<td></td>
<td>ATT7 Salespeople do not have necessarily to gather for headquarters all recent news about the customers (requirements, problems, reorganization...).</td>
</tr>
<tr>
<td></td>
<td>ATT8 I like to look for information that could interest people from headquarters.</td>
</tr>
<tr>
<td></td>
<td>ATT9 When I’m on the field, I like to watch, listen and collect here and there, any information on what could interest my company.</td>
</tr>
<tr>
<td></td>
<td>ATT10 Gathering information on what's happening in the field is one of my priorities.</td>
</tr>
<tr>
<td>Motivation (MOTIV)</td>
<td>MOTIV 1 With regard to my customers’ portfolio, if I make an effort to obtain relevant information for the Marketing and Sales Managers, the likelihood of success is. (expectancy: exp1)</td>
</tr>
<tr>
<td></td>
<td>MOTIV 2 If I make an effort to obtain reliable confidential information on the competitors or on my customers, the chances of being successful are. (expectancy: exp2)</td>
</tr>
<tr>
<td></td>
<td>MOTIV 3 In my company, the likelihood that I will be recognized or rewarded for having transmitted good information from the field is. (instrumentality: inst1)</td>
</tr>
</tbody>
</table>
|                     | MOTIV When evaluating my performance, the likelihood
that managers in my company will consider my ability to transmit good information from the field is. (instrumentality: inst2)

MOTIV 4 I try to gather and transmit competitive information from the field because my company values this mission (recognition, rewards).(valence for extrinsic reward: ver1)

MOTIV 5 I would not spend time gathering and transmitting competitive information if my company did not recognize this effort. (valence for extrinsic reward: ver2)

Organizational commitment (COMM)

COM1 I am willing to put a great deal of effort beyond that normally expected in order to help this organization be successful.

COM2 I find that my values and the organization's values are very similar.

COM3 I am proud to tell others that I am part of this organization.

COM4 I talk up this organization to my friends as a great organization to work for.

COM5 I would accept almost any type of job assignment in order to keep working for this organization.

COM6 For me, this is the best of all possible organizations for which to work.

(continued on next page)

Table (continued)

COM7 I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.

COM8 This organization really inspires the very best in me in the way of job performance.

COM9 I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.

Behavior control system (SYST)

SYST1 My supervisor makes sure everyone knows what to do and how to do it.

SYST2 My supervisor stays in close contact with me.

SYST3 My boss rarely ask me for information on how I'm doing.*

SYST4 I don't have much contact with my company's management.*

SYST5 Management here stays very well informed of
### Participation in decision making (PARTI)

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTI1</td>
<td>Decisions are made at the top around here.*</td>
</tr>
<tr>
<td>PARTI2</td>
<td>Salespeople and management tend to hammer out issues together in this organization.</td>
</tr>
<tr>
<td>PARTI3</td>
<td>My boss actively seeks my ideas all the time.</td>
</tr>
<tr>
<td>PARTI4</td>
<td>Management make decisions without much regard for what salespeople think.*</td>
</tr>
</tbody>
</table>

### Feedback (FEED)

<table>
<thead>
<tr>
<th>Feed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEED1</td>
<td>We are always informed when information we transmit from the field reach their addressee.</td>
</tr>
<tr>
<td>FEED2</td>
<td>We are always informed when information we transmit from the field are used.</td>
</tr>
</tbody>
</table>

### Recognition (RECO)

<table>
<thead>
<tr>
<th>Recognition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECO1</td>
<td>In our company, we know the names of salespeople who transmit good information from the field.</td>
</tr>
<tr>
<td>RECO2</td>
<td>Salespeople who transmit good information from the field are publicly congratulated.</td>
</tr>
<tr>
<td>RECO3</td>
<td>Salespeople who transmit good information from the field are always thanked.</td>
</tr>
</tbody>
</table>

### Role ambiguity (AMB)

<table>
<thead>
<tr>
<th>Role Ambiguity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMB1</td>
<td>I feel certain about What I am supposed to do.</td>
</tr>
<tr>
<td>AMB2</td>
<td>I have clear, planned objectives.</td>
</tr>
<tr>
<td>AMB3</td>
<td>I know that I have divided my time properly.</td>
</tr>
<tr>
<td>AMB4</td>
<td>I know what my responsibilities are.</td>
</tr>
<tr>
<td>AMB5</td>
<td>I know exactly what is expected of me.</td>
</tr>
<tr>
<td>AMB6</td>
<td>Explanation is clear of what has to be done in my company.</td>
</tr>
</tbody>
</table>