

## CHAPTER 2

### REVIEW OF LITERATURE

#### 2.1. Involvement

Involvement can be defined as “a motivational state induced by an association between an activated attitude and the self-concept” (Johnson and Eagly, 1989). Involvement is said to affect attitude (Sherif and Cantril, 1947). In more recent years, psychology researchers concerned with the cognitive processes underlying attitude change explain that involvement is a motivational variable that is presumed to affect persuasion, because it causes more thorough processing of persuasive messages (Petty and Cacioppo, 1979; Chaiken, 1980). This is consistent with Hulstijn and Laufer (2001), who propose that involvement captures the degree of cognitive processing of a person.

Kim (2008) suggests that involvement is composed of three components: need, search and evaluation. The need component is the motivational, noncognitive dimension of involvement. Need usually occurs in two degrees of prominence: moderate or strong. Need is moderate when it is externally necessitated and strong when it is self-imposed by the person. Search and evaluation are the cognitive dimension of involvement. This means that both require information processing and attention of a person. Search can be present or absent. Search occurs when a person tries to find out more about the subject matter from different sources, such as their colleagues or textbooks. Evaluation requires making a decision during a task performance. Evaluation comprises two degrees of cognitive processing: moderate or strong. Evaluation can happen with or without search. For example, if a person is provided with enough information at hand, he does not have to perform a search activity.

Figure 1 on page 19 depicts a conceptual model of the involvement process which can help to explain the essentials in this literature review on involvement.

### 2.1.1 Types of Involvement

This study explores the impact that involvement has on persuasion, which is known to affect attitudes of a person. A meta-analysis of the effects of involvement on persuasion by Johnson and Eagly (1989) indicates three types of involvement: (1) value-relevant involvement, (2) impression-relevant involvement, and (3) outcome-relevant involvement. These three types of involvement are different constructs and have distinctively different effects on persuasion.

Value-relevant involvement is a concept that was developed as early as the 1940s. Social judgment-involvement theorists regarded highly involving attitude as components of the ego or self-concept; i.e. “the characteristic feelings of continuity and performance the individual has about himself” (Sherif and Cantril, 1947). As such, value-relevant involvement is also known as *ego involvement*. Ego or self-concept is integrally related to values (Cho and Boster, 2005). Attitudes and actions are guided by values. Johnson and Eagly, (1989) defines value-relevant involvement as “the psychological state that is created by the activation of attitudes that are linked to important values”. Values are aspects of the self that are especially important and enduring. According to Social Judgment Theory, whether involvement can cause a change in attitude depends on where the messages lie within the attitudinal continuum. The attitudinal continuum is divided into three latitudes: (1) the latitude of acceptance, containing the positions that a person finds acceptable; (2) the latitude of rejection, containing the positions that a person finds objectionable; and (3) the latitude of noncommitment, containing the positions a person finds neither acceptable nor unacceptable. These latitudes affect how an incoming message will be judged and how likely a person is to be persuaded by a message (Park et al., 2007). A message that lies within the latitude of acceptance often leads to successful persuasion, since the person basically agrees with the message. However, a message that lies beyond the latitude of acceptance (i.e. message is something that a person does not believe in) leads to very little persuasion and may lead to rejection.

Impression-relevant involvement is concerned with the public perception of self. This construct has been developed by Zimbardo (1960) as “the individual’s concern with the consequences of his response or with the instrumental meaning of his opinion”. Cho and Boster (2005) suggest that the concern of a person with high

impression-relevant is on others' perceptions. This pertains to pleasing others, conforming to the social situation, and masking one's true feelings. Johnson and Eagly (1989) assert that this type of involvement concerns with holding an opinion that is socially acceptable to potential evaluators. Thus, a person who is motivated by an impression-relevant involvement may choose to hold a flexible or nonpolarized position when the opinion of anticipated audience is not known on an issue at hand.

Outcome-relevant involvement is a concept that is discussed by Petty and Cacioppo (1979). At the time, Petty and Cacioppo (1979) use the term *issue involvement* to describe "the extent to which the attitudinal issue under consideration is of personal importance." However, Johnson and Eagly (1989) found that the definition of involvement by Petty and Cacioppo (1979) is too broad. So, they suggest the term outcome-relevant involvement to be applied instead, since the concept makes clear that the involving issue must be relevant to the person's currently important goals or outcomes (e.g. profit or personal success). Outcome-relevant involvement can either enhance or inhibit persuasion because it promotes issue-relevant thinking (Petty and Cacioppo, 1981). If a person is presented with issue-relevant cues, involvement will facilitate attitude change. However, if a person is presented with non-issue-related cues, involvement will attenuates attitude change. Outcome-relevant involvement is associated positively with information seeking and stimulates the motivation to process information, especially when involvement is perceived as having important future consequences (Cho and Boster, 2005).

Outcome-relevant involvement occurs when an attitude is activated that is concerned with important outcomes. Psychology researchers often study this type of involvement using an experiment with outcomes that affect the college lives of participants, who are college students. For example, Maio and Olson (1995) place participants in either a low involvement or high involvement condition by telling them either that the comprehensive exams may be implemented at their university next year (high involvement) or that the exams may be implemented in five years (low involvement). Participants have to indicate their attitude towards the comprehensive exams. Johnson and Eagly (1989) suggest that this type of manipulations be called *outcome-relevant involvement*, since they make salient to message recipients the relevance of an issue to their currently important goals or outcomes (i.e. college

students' social lives, an impingement on their ability to obtain a degree and on the quality of the education they receives).

The focus of this dissertation is on *outcome-relevant involvement*. As explained earlier, this type of involvement is a psychological state that occurs when attitudes are activated that are concerned with currently important goals or outcomes (e.g. company's profit). In case of performance evaluation of management using the BSC, participants, who act as senior executive of the company, are provided with the case that the top management of the company decides to implement the BSC. So participants know that the important goal that must be achieved from this experiment is to evaluate performance of the two SBUs using the BSC. The performance evaluation is not related to personal values (e.g. freedom) nor is it related to the orientation toward others (i.e. conforming to social norms). So, performance evaluation using the BSC is not related to value-relevant involvement or impression-relevant involvement. Thus, outcome-relevant involvement serves as the right type of involvement to explore in this dissertation.

### **2.1.2 Levels of Involvement**

Hunton and Price (1994) suggest that there are different levels of involvement: (1) voice, (2) choice, and (3) voice and choice. Involvement by voice is a form of process control whereby the person believes the expression of an opinion may lead to favorable outcome (Houlden et al., 1978). Involvement by voice is viewed as a probabilistic control, since involvement by voice does not guarantee that a person can influence the decision outcome. Participation by choice allows a person to participate via selection of a specific course of action from among multiple alternatives (Early and Lind, 1987). Involvement by choice is a deterministic control, because the degree to which choice impacts the decision outcome is known in advance (Hunton and Price, 1997). Involvement by voice and choice is also a deterministic control, whereby a person tries to maximize his own personal gain by having influence or control over the outcomes.

Hunton and Price (1994) illustrate the differences between voice, choice, and voice and choice using a case of developing an accounting information system. Involvement by voice only occurs when system user's opinion is solicited (e.g.

request for an evaluation of a system) after the AIS is developed and implemented. Thus, it seems clear that involvement by voice is after-the-fact type of involvement, in which a person does not have any influence or control over the outcome. Involvement by choice only occurs when the system user is presented with a set of AIS configuration alternatives (e.g. background color of the computer screen, data entry field color, and message prompt format). User is able to select the preferred alternative to be implemented. Thus, user has deterministic control over the choice that they choose, since the degree of influence is certain. Involvement by voice and choice occur when the system user's opinions are solicited during the AIS development process. Based on that input, users are presented with a set of AIS configuration alternatives. Then, user will select the preferred alternative to be implemented. In this case, user retains influence and control over the outcomes. However, the difference between involvement by choice only and involvement by voice and choice is that involvement by voice and choice allows a system user to give input into the system development, prior to choosing their preferred alternative.

### **2.1.3 Intervening Variables**

Success of an involvement effort depends on a complex set of intervening variables (Locke and Schweiger, 1979; Hunton and Price, 1994). There are two types of intervening variables: (1) personal antecedents and (2) situational antecedents (Iwasaki and Havitz, 1998).

Personal antecedents are individual characteristics of a person. Antecedents of involvement include cognitive and affective factors (Locke and Schweiger, 1979), motivation and ability (Park et al., 2007), attitudes, skills and intrapersonal constraints (Iwasaki and Havitz, 1998). Cognition is an information processing view of a person's psychological functions. Cognition is often used to refer to mental functions and mental processes, which relate to comprehension, inferencing, decision-making, planning, learning, memory, attention, perception and problem solving. Cognitive factors refer to beliefs, knowledge, and thoughts related to the object or issue (Kyle and Mowen, 2005). Performance evaluation using the BSC mainly concerns with decision-making of management. In decision-making

context, cognitive factors represent a person's level of awareness concerning relevant attributes of the decision at hand (Hunton and Price, 1994).

Affection is a disposition or state of mind and body. Affective factors represent how a person feels about certain persons, objects, or events. Affective factors may result in either positive or negative effects. For example, after being involved in a certain activity, a person may feel pleasure or displeasure, tensed or relaxed, and excited or depressed. However, most mainstream psychology research on involvement contends that involvement may enhance intrinsic feelings of importance, inclusiveness, and self-esteem, which leads to positive attitudes and behavior (Beatty et al., 1988).

Motivation often refers to reasons for a person engaging in a particular behavior. Reasons may include basic need such as food, desired objects, or goals. Reasons may also include altruism or morality. Thus, motivation leads to initiation, direction, and persistence of human behavior. A person may feel more motivated if they are given rewards, which may be intrinsic or extrinsic. Extrinsic rewards are external to the person (e.g. praise or money). Intrinsic rewards are internal to the person (e.g. satisfaction or a feeling of accomplishment). Intrinsic rewards can also include obligation; i.e. that a person feels obligated for accomplishing certain job, even though a person may not enjoy such job. Motivation can increase because involvement increases perceptions of control over the decision making process (Park et al., 2007). This, in turn, will enhance commitment to the chosen alternatives (Hunton and Price, 1994). Ability describes what a person can do now, including things which were not explicitly learned skills. Motivation and ability are the two major factors that determine whether an individual engages in central/systematic or peripheral/heuristic processing of information. When an individual is motivated and able to process information, he is more likely to evaluate message quality rather than relying on heuristic cues such as source attractiveness (Park et al., 2007).

Breckler (1984) and Kyle and Mowen (2005) suggest that attitude is comprised of three components, namely affective, cognitive, and conative components. Affective components refer to emotional responses or activity in the sympathetic nervous system. Cognitive factors refer to beliefs, knowledge, and thoughts related to the object or issue. Conative factors refer to behavioral intentions

and behavioral commitments. Intrapersonal constraints are individual's own limitations, such as limitations in personal skills. High levels of intrapersonal constraints are likely to be associated with low involvement.

Situational factors are something that temporarily increases or decreases relevance or interest toward the object of issue (Zaichkowsky, 1985). As such, situational factors are often influences from the environment; e.g. monetary incentives or support/pressure from the management (Iwasaki and Havitz, 1998). Situational factors also include physical characteristics of the object or issue that cause differentiation and increase or decrease interest.

#### **2.1.4 Attitude Formation**

Attitude formation is characterized as a person's evaluation of an entity that he did not previously assess (Park et al., 2007). When face with an issue that a person never sees, he will start evaluating the issue to form a new attitude. Even when a person is familiar to a certain extent with the issue, he may not have started the evaluation process of the issue. Thus, he forms a new attitude after the evaluation process. Alternately, attitude change occurs when a person changes his existing evaluations of an issue. This means that the person already has preexisting attitudes about the issue, but then change his attitude about the issue.

Since attitude formation and attitude change are different, the factors that influence attitude change are different from the factors that influence attitude formation. For attitude formation, a person is presented with a new issue that they never encounter before. So, there is no prior attitude about the issue. Thus, a person may be more motivated to process the issue in a less biased manner. However, a person normally has selective attention, which is a tendency to process information from only one part of the environment with the exclusion of other parts. So, after a person establishes his attitude on an issue, he may be unmotivated to process relevant messages about the issue, especially when he is highly ego-involved. Park et al. (2005) concludes that "high involvement is a facilitator of attitude formation but is an inhibitor of attitude change".

Since an issue can cause a person to form a new attitude or to change/fail to change the existing attitude of a person, this may then lead to commitment of a person on the issue or lead to frustration of a person, when a person perceives that the issue is against his beliefs or existing attitudes.

### **2.1.5 Commitment versus “Frustration Effect”**

Some researchers contend that involvement often leads to commitment to a specific issue or object (Crosby and Taylor, 1983; Iwasaki and Havitz, 1998). However, some researchers contend that involvement may lead to a feeling of frustration, which has a negative effect on commitment (Folger et al., 1979). So, the following paragraphs explore the conflicting results behind the involvement construct.

Commitment is a multidimensional construct consisting of personal and behavioral mechanisms that bind individuals to a consistent pattern of behavior (Kim et al., 1997). Crosby and Taylor (1983) suggest that involvement will most likely lead to commitment. Commitment will result after a person is involved with an issue. By then, values, images, or important attitudes will be cognitively linked to a particular stand or choice alternative. Thus, commitment to an issue will result. This may be due to a “fair process effect” as explained by the procedural justice literature. That is, a person is more likely to accept decisions and his consequences if he had participated in making them (Folger et al., 1979).

Several areas of studies have explored the effect that involvement in an issue or object has on commitment of a person. In a marketing literature, Beatty et al. (1988) suggest that involvement of a consumer in a purchase situation leads to brand commitment. This is because a consumer’s purchase involvement probably led to a more extensive decision-making process including greater deliberation and search. Once he made the selection, and assuming reasonable satisfaction, he will tend to be more brand committed. When a consumer is brand committed, it will be more difficult to switch him to another brand. In leisure research, Kyle and Mowen (2005) found that enduring leisure involvement has a positive effect on agency commitment. This finding got its support from the cognitive development and social judgment theory. These theories provide complimentary explanations of the psychological processes that underlie attitude stability. Cognitive development theory suggests that



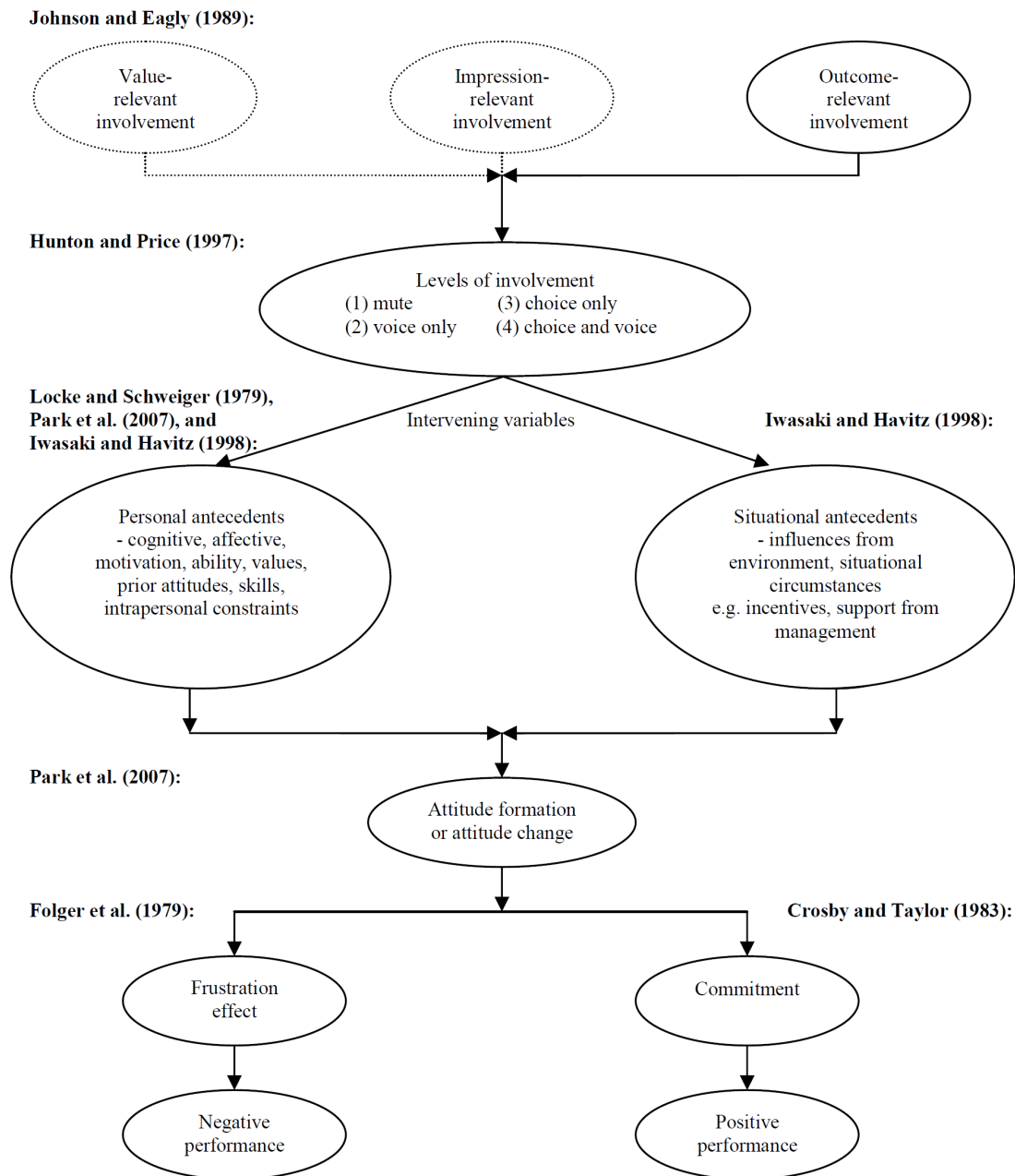
as a person's involvement with specific activities increases, their knowledge related to the activity increase. From a social judgment perspective, Crosby and Taylor (1983) contend that attitude stability is a product of selective perception. This means that a consumer's commitment to certain product is related to selective perception; i.e. the process of consumer's choice which is related to their beliefs and attitude to the product. Siegenthaler and Lam (1992) and Park (1996) observe strong and positive correlations between commitment and involvement. In the human resource research, involvement has also been shown to be an effective strategy for enhancing commitment to a decision (Silverman and Wexley, 1984). In the organizational behavior research, researchers suggest that increased commitment occurs under conditions of involvement and choice (Salancik, 1977).

Although Folger et al. (1979) explains that a "fair process effect" causes a person to be more likely to accept decisions and their consequences if he is involved in making them, they also explain the contradicting condition; i.e. that involvement causes "frustration effect". This is due to the fact that the fair process effect has its limitations; involvement in an issue may not always enhance satisfaction with decision outcomes. When comparing two conditions whereby under the first condition, a person is not given a choice at all, while under the second condition, a person is given a choice (i.e. has a certain degree of involvement), but the choice is not accepted. When a person is given a choice, he may expect that his choice should be accepted. Thus, when his choice is denied, he may be dissatisfied with the subsequent outcome even more so than when he is not given a choice at all.

Baldwin et al. (1991) studies the effect of trainee choice of training on subsequent motivation and learning. The subjects are randomly assigned to one of three conditions: (1) no choice of training; (2) choice of training, but choice not received; and (3) choice of training with choice received. The result of this study indicates that subjects who were allowed to choose training programs they want to attend and were given the training of their choice had greater motivation to learn. However, subjects who are allowed to choose but were not given a training of their choice were less motivated to learn than subjects who were not given a choice at all. Baldwin et al. (1991) explains that this result is due to "perils of participation", which is consistent with the "frustration effect" documented by Folger et al. (1979) and also

“psychological reactance” as documented by Brehm (1972). Reactance usually occurs when someone is heavily pressured to accept a certain view or attitude. Reactance can cause a person to adopt or strengthen an attitude that is contrary to what was intended and also increases resistance to persuasion.

**Figure 1: Conceptual Model of the Involvement Process**



## **2.2 Judgment and Decision-Making Research**

### **2.2.1 Judgment and Decision-Making Research**

Judgment and decision-making researches suggest that people use common and unique information differently. In a classic study by Slovic and MacPhillamy (1974), subjects have to compare pairs of students and judge which of the two students have a higher freshmen GPA. For each pair of students, subjects are given scores for the common and unique information. The information that is common for both students is the scores for English skills. The information that is unique for each student is the scores for quantitative aptitude (for Student A) and the scores for need to achieve success (for Student B). Results show that subjects weight common measures more heavily than unique measures. Monetary incentives and feedback did not improve judgment of these subjects.

Slovic and MacPhillamy (1974) explain that this differential weighting is due to the fact that common information provides a direct and unambiguous comparison between the alternatives on the attributes being judged. To use unique information, a person seems to have cognitive difficulty of estimating the relative weights between different attributes. The authors also suggest another possible explanation for the differential weighting. They suggest that the heavier use of common information may result because subjects tend to discount the unique information since they lack confidence in their own ability to use it properly. In other words, the ease of using common information causes a person to be more confident in using them to make judgment. However, since unique information is perceived to be more difficult to use, the person may not be as confident in using them to make judgment. This causes differential weighting in the person's judgment.

The result found by Slovic and MacPhillamy (1974) is consistent with the results found by other comparative judgment research. The general conclusion is that subjects find it rather difficult to weight information in a compensatory manner.

### **2.2.2 Performance Evaluation Using the BSC Research**

Based on the results found by Slovic and MacPhillamy (1974) that subjects, when faced with comparative evaluations, tend to use common information more heavily than unique information, Lipe and Salterio (2000) are the first to explore this finding in the context of BSC performance evaluation. More specifically, Lipe and Salterio (2000) explore how managers' cognitive limitations may prevent a company from fully benefiting from the use of BSC in performance evaluations. Since BSC measures include both common and unique measures, managers may tend to use common measures more than unique measures in their performance evaluation, thus causing common measure bias. Lipe and Salterio (2000) conduct an experiment whereby subjects (M.B.A. students) are given a case asking them to take the role of a senior executive of an apparel company. Subjects are given the company's general information, such as company's background, description and strategies for each of the two business units, and BSC for each division. There are all together sixteen measures for the BSC of each division, with four measures for each of the four perspectives, namely financial, customer-related, internal business process, and learning and growth perspectives. Within each perspective, two measures are common to both divisions (e.g. return on sales, repeat sales, returns to suppliers, and employee suggestions per employee), while two other measures are unique for each division (e.g. new store sales and average major brand names per store for a division that operates retail stores vs. catalog profits and referrals for a division that sells through direct sales). Subjects then evaluate the managers of the two divisions and recommend one manager for promotion to manager of sales operations. Results show that subjects use only common measures in their performance evaluation.

In a related study, Lipe and Salterio (2002) examine the judgmental effect of BSC's organization. They explore whether evaluations using the BSC will differ from evaluations based on the same measures without the scorecard organization. Lipe and Salterio (2002) is based on research in cognitive psychology that shows that people are generally unable to process more than 7-9 items of information simultaneously (Baddeley, 1994). However, Kaplan and Norton (1996) suggest that each of the four BSC perspectives should include 4-7 measures. Thus, all together the BSC measures may sum up to 16-28 measures, which is a lot more measures than the

“magic number” of 7-9 items as suggested by cognitive psychology researchers. Lipe and Salterio (2002) conduct two experiments. In the first experiment, they explore whether the condition when good (above target) or bad (below target) performance is contained within one BSC category has any influence on manager’s performance evaluation. Subjects are divided into two groups. The first group was shown information for the two divisions in BSC format; i.e. the sixteen measures are organized into four BSC perspectives. The second group was shown information for the two divisions in no BSC format; i.e. in alphabetical and random order. The four measures for customer perspective were better than target for the first division and worse than target for the second division, while BSC measures for the other three perspectives were approximately at target for both divisions. Results show that the organization of information affects the relative evaluations of managers. In the second experiment, Lipe and Salterio (2002) explore whether the BSC format affects manager’s performance evaluation when positive (or negative) measures are distributed across all four BSC perspectives. Results show that the BSC format did not affect the evaluations of managers, which is in contrast to results for experiment one. In conclusion, Lipe and Salterio (2002) found that performance evaluations are affected by the organization of information into the BSC format only when multiple above/below-target measures are contained within a perspective, but are not affected when the above/below-target measures are distributed across the four BSC perspectives.

After Lipe and Salterio (2000), many researchers tried to debias the judgmental effects of the BSC, in order to help the organizations find ways to fully benefit from using the BSC in their performance evaluation. Libby et al. (2004) explore two approaches to reducing the common measure bias. They address that the common measure bias may be due to lack of cognitive effort and/or concerns about data quality. For the lack of cognitive effort, managers may ignore the unique BSC measures because processing them requires greater cognitive effort. Thus, Libby et al. (2004) examine whether accountability (i.e. requiring subjects to justify to their superior their performance evaluations) can increase cognitive effort and increase the use of unique BSC measures. For the concerns about data quality, managers may question the quality of the nonfinancial measures. Thus, Libby et al. (2004) examine

whether providing a third-party assurance report over the BSC measures can reduce concerns over data quality and increase the use of unique BSC measures. Results show that the requirement for process accountability and/or the provision of an assurance report on the BSC increases the use of unique BSC measures in performance evaluations.

Banker et al. (2004) point out the importance of linkages between performance measures and strategic objectives, regardless of whether the measures are common or unique, as suggested by Kaplan and Norton (2000). Organizations often provide “strategy maps”, which is a graphical presentation of business strategy that links each measure together, to managers so to help them understand each business unit strategy and incorporate strategic linkages into performance evaluation using the BSC. Thus, they conduct an experiment to assess how managers’ evaluations of business unit performance depend on strategically linked measures of the BSC. Subjects in the benchmark treatment receive a narrative overview of the company and the two business units, while subjects in the strategy information treatment receive a narrative overview and a strategy map outlining each business unit’s strategy. Banker et al. (2004) manipulate the BSC measures with one common and one unique measure in each perspective being strategically linked and one common and one unique measures being non-linked. Comparing linked to non-linked strategic measures, results show that performance evaluations using the BSC are influenced by strategically linked measures more than non-linked measures only when subjects are provided with detailed information about business unit strategies. Their results confirm Lipe and Salterio’s (2000) finding that managers rely more on common measures than on unique measures. However, when managers understand the business unit’s strategy, linked measures dominate common measures in decision making; or else, common measures dominate linked measures.

Roberts et al. (2004) tries to improve the effectiveness of performance evaluations using the BSC by disaggregating the BSC measures. More specifically, they let the subjects evaluate performance separately for each of the sixteen BSC measures and then multiply the separate judgments by pre-assigned weights for each BSC measure. Then, subjects sum the weighted scores to create a total and make an overall evaluation of the performance of each of the two business units. Results show

that the disaggregated BSC allows managers to utilize both unique and common measures in their performance evaluations using the BSC. However, the limitation to this debiasing technique is that the disaggregated steps were not suggested by the BSC's originators, Kaplan and Norton (1996).

Dilla and Steinbart (2005) point out that the limitation to Lipe and Salterio (2000) is that the participants, namely the M.B.A. students, are novices to the BSC. So, Dilla and Steinbart (2005) try to improve the effectiveness of performance evaluation using the BSC by using participants who have experience with using the BSC. More specifically, they explore whether participants who have had training and experience in designing the BSC will use both common and unique measures in their evaluation of the managers' performance. They extend Lipe and Salterio (2000) by using subjects who are undergraduate students who had two class sessions devoted to the BSC topic, had experience with in-class exercise in developing actual BSCs for two different organizations, and were tested on their knowledge about the BSC. Their results show that knowledgeable subjects use both common and unique measures, but still placed greater emphasis on the common measures.