

The Role of Impression Management in Goal Setting

By

Weiman Raymond Chin

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Abstract

This paper examines the effect of impression management on goal level and commitment to the goal. Participants involved in a goal-setting program in the United States were asked to complete a web survey regarding their desire to impress superiors and their commitment to the goal. The specific dependant measures were self-set goal and goal commitment. No statistically significant differences were found between high and low desires to manage impressions with respect to goal set, but a higher desire to manage impressions was positively correlated with a higher degree of goal commitment. This finding suggests that triggering impression management is beneficial for situations in which high goal performance is desired as it increases goal commitment. Future studies could verify these results using larger sample sizes and tackle such issues as goal performance.

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Table of Contents

INTRODUCTION	1
GOALS AND GOAL SETTING	2
GOAL PERFORMANCE	3
GOAL DIMENSIONS	4
GOAL SET.....	5
<i>Types of Goal Set</i>	6
GOAL COMMITMENT	7
<i>Types of Goal Commitment</i>	9
THE EFFECT OF IMPRESSION MANAGEMENT	11
THE IMPRESSION MANAGEMENT EFFECT	12
HYPOTHESES	13
EFFECT OF IMPRESSION MANAGEMENT ON GOAL SELECTION.....	13
EFFECT OF IMPRESSION MANAGEMENT ON GOAL COMMITMENT	15
METHODOLOGY	18
<i>Participants and Design</i>	18
<i>Procedure and Apparatus</i>	19
RESULTS	20
FACTOR ANALYSES	20
<i>Exploratory Factor Analysis: Impression Management</i>	21
<i>Confirmatory Factor Analysis: Goal Commitment and Self-Efficacy</i>	22
GOAL SELECTION	23
GOAL COMMITMENT	24
GENERAL DISCUSSION	26
LIMITATIONS AND FURTHER RESEARCH	28
SAMPLE SIZE AND LACK OF DATA	28
POWER/INFLUENCE	30
DEGREE OF STRETCH.....	31
TEMPORAL EFFECTS.....	34
CONCLUSIONS	35
APPENDIX A	39
APPENDIX B	46

Figures

Figure 1: A diagram of the relationship between task performance and the four main goal dimensions	9
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Tables

Table 1: The distribution of goal levels for the above and below median separations of impression management and self-efficacy	24
Table 2: The correlation between goal commitment, impression management and self-efficacy	24
Table 3: A regression model of goal commitment on impression management and self-efficacy	25
Table 4: The regression models for low and high self-efficacy	26

Introduction

Goal setting theory “is quite easily the single most dominant theory in the field [of motivation], with over one thousand articles and reviews published on the topic in a little over 30 years.” (Mitchell & Daniels, 2003). This widespread use and study of goal setting is not limited to academia. Goal setting in organizations has become crucial, as it “is a positive, powerful practice when it ignites enthusiasm and provides clear direction” (Heathfield, 2005). A quick search on amazon.com reveals more than 250 books on goals and organizations. Of these 250 books, about half of them have been written in the past 5 years. Goal setting has become a very important part of organizations and will likely continue to be in the future.

Although the main components of goal setting have been well studied, many of the goal-setting studies are based on an implicit assumption that goals have been set properly and that the goal setter intends to and wants to achieve the goal. Sometimes the intention of the goal setter will differ from what the goal states. For example, an employee may choose to use a goal as a tool for impression management. In order to impress his manager, the employee may select a goal that is higher than what he is able to achieve. Although a higher goal has been shown to increase performance (Locke & Latham, 1990), it may also affect such goal setting constructs as goal commitment, especially if the goal is set excessively high. Goal commitment is important to the goal setting process, as a goal with low goal commitment has been shown to be non-effective and lead to lower performance.

In fact, there has been a case of this effect of impression management on goal setting at a company in the United States. Managers at a fair-sized computer company thought that the best way to increase their output was to have employees set their own

goals. This method in itself is valid, as it has been shown that self-set goals are an effective motivational tool (Locke & Latham, 1990). The managers at this company knew that higher goals led to better performance, so they pressured their employees' to set higher goals stimulating their employees desire to manage impressions as a result. However, the managers did not anticipate the effect that impression management would have on the entire goal setting process. The employees suffered from lack of commitment to their goals and the goal setting program was a failure (Tom Kerr, personal communication, Aug 10th 2005).

This paper studies ways in which the desire to manage impressions affects the goal set and employee commitment to that goal. Since both of these factors have been shown to have a large impact on performance, I believe that the degree to which an employee wishes to impress his manager will have an effect on employee output and productivity.

Goals and Goal Setting

Goal setting is an important tool in providing motivation to people and is ubiquitous in everyday life. The foundation of goals and goal setting was written in T.A. Ryan's book *Intentional Behavior* (1970), in which he discusses some of the main ideas behind goals. He argued that because goal setting can have a large effect on individual behaviour, it is important to the study of motivation. Ryan also introduced the concept of time into goals by distinguishing between a goal, an action to do or accomplish something specific within a specified period of time, and a task, an action that is not limited to a specific time period.

This paper will focus on the use of a specific type of goal proposed by Ryan (1970): the instrumental goal, for which there is a tangible reward for achieving the goal.

An instrumental goal is different from a personal goal, which can be defined as a goal that is strictly set for personal enhancement. Most goals in organizations are instrumental goals and, therefore, the focus of this paper.

Goal Performance

One of the central relationships in goal setting theory is the relationship between goal difficulty and task performance. Goal setting theory asserts that there is a positive linear relationship between goal difficulty and task performance (Locke & Latham, 1990). Essentially, a more difficult goal leads to higher performance.

This relationship is seemingly inconsistent with other theories of motivation, notably Vroom's expectancy theory (1964). Victor Vroom (1964) proposed that an individual's motivation to perform a task would depend on that individual's expectancy, instrumentality, and valence. Vroom (1964) found that an individual's motivation to perform a task depends on his expectancy, the likelihood that he will achieve the task; his instrumentality, the belief that his actions will lead to successful outcomes; and valence, the importance of the outcome. Essentially, Vroom's theory stated that the harder the task, the less motivation that an individual will have towards achieving that task. According to Vroom, expectancy approaches zero when a person believes that a goal is unattainable.

The inconsistency between expectancy theory and goal setting theory was reconciled by later goal setting researchers. At the point when a task becomes too hard for an individual, other factors, such as task ability and goal commitment, become major determinants of task performance. This relationship was first described by Locke (1982), who posited that the positive relationship between goal difficulty and task performance

holds until the goal becomes too difficult for the individual, at which point no further effort is exerted.

The central goal setting relationship proposed by Locke is now compatible with expectancy theory (Vroom, 1964). As the goal difficulty increases, the expectancy of achieving the goal decreases. According to goal setting theory, this increase will lead to decreasing effort which corresponds to the zero motivation and zero effort calculated using Vroom's Valence Instrumentality Expectancy theory.

In the general range of an individual's task ability, goals are an important part of proper motivation to perform at a high level. An intention of this paper is to see whether a desire to manage impressions will push a goal setter into setting a goal in the range above his personal abilities, thus affecting their overall effort.

Goal Dimensions

There are two different dimensions to any psychological process: *content* and *intensity* (Rand, 1967). Since goal selection is a psychological process, it can also be defined using these two dimensions (Locke & Latham, 1990). The goal content dimension is very straightforward; it is simply the object or result being sought after. Goal content could refer to a specific milestone or level which a person has to achieve within a certain time period. A change in the goal content would be equivalent to a change in the scope of the goal. When the scope of the goal is changed, the goal setter is no longer interested in the original goal and a corresponding decrease in commitment would likely indicate that. Therefore, the goal intensity dimension is much more interesting to study.

The five factors of the goal intensity dimension include: *effort required to form the goals, the degree to which the individual is committed to the goal, the importance of the*

goal, the scope and the integration of the goal setting process and the place of the goal in the individual's goal hierarchy (Locke & Latham, 1990). Two of these factors, the *scope of the goal setting process* and the *degree to which a goal setter is committed to their goal*, are important goal constructs that have been studied in the past and are most likely to be affected by impression management.

Goal Set

Past research has shown that work performance is directly related to the goal which is set (Earley et. al, 1989). The important goal setting finding is that specific, difficult goals are best at enhancing goal performance (Locke & Latham, 1990). As long as the goal setter is committed to a goal, a goal that is set at the maximum of an individual's ability will lead to the highest level of performance. This finding indicates that there is a 'right' and a 'wrong' way to set a goal. A proper goal is one where the goal is set right at the maximum point so that it serves as motivation to complete the goal, but is reachable for the employee. An improper goal is one that is set either too high or too low.

An organization intent on saving money by minimizing employee bonus payout may wish to coerce employees into setting goals that are higher than they are capable of achieving. This style of goal setting would likely cause an employee to reach a higher level of performance than one set at the maximum of his ability and minimize the amount that the organization has to pay for the achievement of the goal. This type of improperly set goal may lead to other employee related problems.

If employees are constantly setting goals that are too high, there is a greater chance of failure to reach the goal, which may lead to self-esteem and company loyalty issues. An employee may not remain happy and loyal to a company if he perceives that the company

is the root cause of his self esteem problems. These effects of improper goal setting are not studied in this paper, but are important in the understanding of goals.

Types of Goal Set

There are different ways in which a goal can be set, ranging from self-set to assigned goals. Goal setters in a self-set situation are allowed to select any goal for themselves. On the other hand, an assigned goal is one in which the goal setter is given a predefined goal by another person, usually a superior. It has been found that a goal set between these two extremities, defined as a participatively-set goal, leads to a higher level of performance.

Latham et al. (1994) studied the effect of assigned vs. participative goal setting using a complex task in individual and group settings. The main conclusion drawn from their experiments was that participants in the participatively-set condition performed at a higher level. This finding was based on the fact that a goal setter who is able to participate in the goal setting process feels more personal attachment to the goal. Personal attachment leads to an increase in the amount of commitment on the part of the goal setter.

The category of participatively-set goals may be broken down into two different types. In the first type, the goal setter works with another person, usually a superior, to select a goal together. This type of participative goal setting is perhaps the most true to the definition since all stages are participatively set, but it is not as common in organizations as there are heavy time costs to setting a unique goal with each employee. The second type of participative goal setting is one in which the goal setter is able to select from a pre-selected list of goals. In this type of participatively-set goal, the goal-setter has a personal say in the goal as he is permitted to select a goal, but is not allowed to choose what the pre-selected

list consists of. The latter type of participative goal setting is used by the organization in this study, and will be the focus of this paper

Goal Commitment

Goal commitment moderates the relationship between goal difficulty and goal performance. A more difficult goal can result in higher performance (Locke, 1968; Locke, 1982; Locke & Latham, 1990), but only when and if the goal performer feels committed to the goal (Klein et. al, 1999; Locke and Latham, 1990). Many of the early studies involving goal performance fail to recognize goal commitment as a key moderator and their findings are the result of an assumption that the individual has committed to or accepted the goal.

Goal acceptance is a term that is often used interchangeably with goal commitment, but these two terms have been fully differentiated (Hollenbeck et. al, 1989; Locke et. al, 1998). Goal acceptance is defined as the initial acceptance of the goal (Hollenbeck et. al, 1989). Essentially, the difference between goal acceptance and goal commitment is the time variable. When an individual sets a goal, the goal is considered as accepted when the person actually chooses to take the goal. On the other hand, goal commitment is the long-term commitment by the individual to the goal. Although a person may initially accept a goal, the commitment may not be strong if the person feels as though the goal is not right for him. Of the two variables, goal commitment and goal acceptance, long-term commitment has a stronger impact on motivation than initial acceptance. In fact, goal commitment has been shown to be the most important moderator to goal motivation and plays a critical role in goal setting theory (Hollenbeck et. al, 1989). Hollenbeck et. al (1989) argued that in order for goal setting to be effective, goal commitment was necessary.

The term goal commitment has gone through many changes in definition since it was originally defined by Locke (1968). Goal commitment was originally defined as one's determination to reach a goal. Campion and Lord (1982) incorporated time into the definition of goal commitment and posited the most complete definition of goal commitment: they define goal commitment as the extension of effort, over time, towards the accomplishment of an original goal and emphasize an unwillingness to abandon or to lower the original goal. The time variable introduced by Campion and Lord (1982) is very important to the study of goal commitment.

Understanding goal commitment is important to properly understanding the relationship between goals and performance (Klein et. al, 1999). Their main finding is that goal commitment acts as moderator between goal difficulty and performance. The second finding had to do with the relationship between goal commitment and performance: a goal setter with high goal commitment will experience higher performance than a goal setter with low goal commitment (Klein et. al, 1999; Locke & Latham, 1990).

Locke and Latham (1990) also incorporated goal difficulty into the goal commitment-task performance relationship. They found that goal commitment would increase with the goal difficulty that a goal setter perceives. Essentially, a more difficult goal will lead to more commitment. This finding was important to the field of goal setting, as it basically posits that a more difficult goal results in increased goal commitment and task performance.

Figure 1 is a pictorial view of the relationships between the 4 main goal dimensions. The central goal setting theory relationship is the relationship between goal difficulty and

task performance. Goal difficulty is mainly affected by the type and scope of the goal set. And finally, goal commitment acts as the main moderator to the central goal relationship.

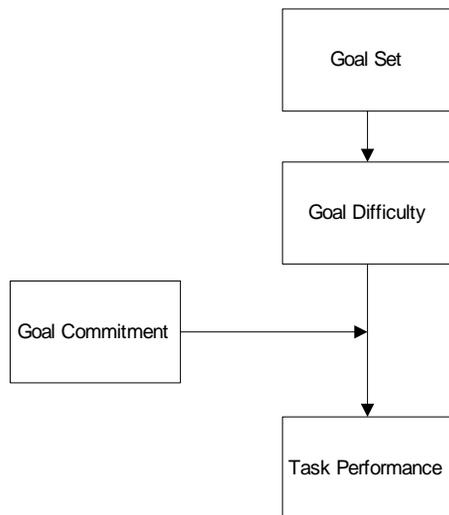


Figure 1: A diagram of the relationship between task performance and the four main goal dimensions

Types of Goal Commitment

One method of categorizing goal commitment was proposed by Locke et. al (1988). They posit that there are three main factors of goal commitment: external, interactive and internal (Locke et. al, 1988). The external factors include such aspects as authority, peer influence, and external rewards. Examples of interactive factors are participation and competition, and the internal factors include such items as expectancy and internal rewards.

Unlike the external and interactive factors, internal factors do not involve conscious cognitive processing. The internal factors are related to self-efficacy and internal expectancy for success. It is these two aspects of the internal factors that control the goal setter's dedication to a goal. A higher internal goal commitment results in higher expectancy and a higher chance of performing at that level. Self-efficacy also affects the goal setter's acceptance of a goal. Without initial goal acceptance, a goal setter will have less chance of success (Hollenbeck et. al, 1989).

A second and more relevant method of categorizing goal commitment that has become popular in the goal commitment literature is one proposed by Hollenbeck et al (1989). This method is similar to the expectancy theory first proposed by Victor Vroom (1964). Goal commitment is first broken down into two main constructs: the attractiveness of goal attainment and the expectancy of goal attainment. The amount of commitment that an individual has towards a goal is determined by the attractiveness of the goal and the expectancy of reaching that goal.

There are two main sets of antecedents to each of these constructs: situational and personal (Hollenbeck et. al, 1989). Personal factors include self-esteem and personality types. These factors affect how an individual will react internally to a goal. Using this second breakdown of goal commitment, the focus of this thesis is the reaction of goal commitment to situational factors such as impression management.

Hollenbeck et. al (1989) believe that introducing impression management will affect situational factors such as publicness and social influence. Hollenbeck et. al (1989) propose that the degree to which the goal is set publicly will affect the attractiveness of goal attainment for the goal setter and that social influence will have an impact on the expectancy of goal attainment, which affects the goal setter's commitment to the goal. Both of these factors, the degree of publicness and the social influence, are descriptors of a larger concept, the social situation.

Research has shown that people have a strong desire to appear rational and consistent in social situations (Staw & Salancik, 1977). This desire may result in an action that is not consistent with their personal values. An individual may react in ways that are intended to manage the impression that he is making on others for his own personal gain.

This reaction may affect goal selection and performance. Many aspects of goal setting theory have been studied, but there is a lack of research in the area of the effect on these two goal constructs in a public situation.

The Effect of Impression Management

As stated earlier, current goal setting research has assumed that goals have been set accurately. However, if employees are using their goals to manage impressions, this assumption may not hold. Impression management is a psychological effect that causes a person to try to control information in order to impress someone in a position of authority. The idea of impression management falls under the umbrella concept of public and private self, which was first demonstrated by the Hawthorne experiments (Mayo, 1946).

A major finding of the Hawthorne experiments was that an increased amount of managerial presence leads to an increase in the amount of effort that an employee is willing to exert. Hawthorne found that effort increased when an employee knew that his manager was paying attention to him. The findings indicate a more passive type of employee reaction, in the form of effort increase.

In the case of a goal-setting situation, a goal setter could use a goal as a tool for impression management. If the goal setter is driven by impression management when setting a goal, a higher goal with less goal commitment from the goal setter will be set. Ultimately, this type of goal will lead to decreased performance and is, therefore, worth studying.

The Impression Management Effect

Schlenker (2003) defines impression management as the activity of controlling information to influence the impressions formed by an audience. Other popular definitions of impression management include: “Any behavior by a person that has the purpose of controlling or manipulating the attributions and impressions formed of that person by others” (Tedeschi & Riess, 1981); “the conscious or unconscious attempt to control images that are projected in real or imagined social interactions” (Schlenker, 1980) and “an attempt by one person (actor) to affect the perceptions of her or him by another person (target)” (Schneider, 1981).

There are three commonalities in each of those definitions: a source individual, the person who is controlling his actions or information; a target individual, a person who is being influenced by the source; and the interaction or relationship between the two individuals. These three concepts were originally defined by Goffman (1959). Goffman believed that everyone is an actor on the stage of life. Every actor’s performances are situation-specific and have an intended audience. These purpose-driven performances were later defined as impression management.

It is clear from the above idea of target and source individuals that an important aspect of impression management is the necessity of power or influence of the target individual. Dreu, and Kleef (Dreu, and Kleef, 2004) found that power is positively correlated with impression management: the higher the power relationship, the stronger the desire to manage impressions. Specifically, Dreu and Kleef (Dreu, and Kleef, 2004) found that negotiators with less power had a stronger desire to form accurate impressions,

whereas negotiators with higher power had a stronger desire to manage positive impressions.

The theory developed by Dreu and Kleef can be applied to impression management. Naturally, for the goal setter to manage impressions, the person to be impressed must have some form of power over the goal setter. A manager is a likely candidate for this position when discussing goals, but it is also likely that peers will have power over goal setters. For some goal setters, impressing peers may be just as important as impressing managers. Since most managers have a larger amount of power than peers, the focus will be on the manager-employee relationship

There are 7 main techniques of impression management that are commonly used: conformity, excuses, apologies, acclamations, flattery, favours and association (Robbins & Langton, 2003). Of the seven techniques, the one most likely used in this situation is acclamations, or the explanation of favourable events to maximize the desirable implications for oneself.

The technique of acclamations will likely affect both of the goal constructs discussed earlier. A higher desire to impression manage will lead a goal setter to set a higher goal, as they will use the opportunity of goal setting to make himself seem more favourable to superiors.

Hypotheses

Effect of Impression Management on Goal Selection

The degree to which the goal setter wants to impress a manager with his or her goal selection may influence the goal that is selected. As mentioned previously, goal setting is the primary determinant of task performance.

If the goal setter and the manager are in a power relationship, it is anticipated that the goal setter's increased desire to impression manage will encourage the selection of a higher goal. Essentially, a power relationship is any relationship in which a goal setter has someone to impress. The person to be impressed, generally a superior, is considered to have power over the goal setter.

In a situation where impression management drives the behaviour of an individual, I hypothesize that an employee will want to impress someone in a position of authority by setting a goal which is higher than the goal setter would set in a non-impression management situation. Furthermore, the degree to which a goal setter wants to impress his manager defines the degree to which he will use goal selection as an impression management tool. Holding other variables constant, a goal setter with a high desire to impress a manager will set a higher goal than a goal setter with a lower desire to impress a manager.

Hypothesis 1:

As the desire to impression manage increases, an individual will set higher goals

There are two very different situations that may result from setting an impression management focused goal. The desire to manage impressions could cause an employee to set a goal at a level higher than he is capable of achieving. In other words, the employee will set too high a goal. Alternatively, a goal setter may choose to set a goal that maximizes his chance of achieving the goal. This second result may be seen as a hedging technique. The goal setter is setting a goal below his ability in order to ensure some payout.

Note that the end result in both situations is the same; higher goals are set when the goal setter's behaviour is driven by impression management. In order to distinguish between the two situations, the individual goal setter's efficacy beliefs must be studied. The efficacy beliefs of each goal setter would translate into his respective actual task ability on the task ability continuum.

Effect of Impression Management on Goal Commitment

It has been found that a public goal will lead to more commitment as the goal setter has someone to 'report to' (Salancik, 1977; Hollenbeck et Al, 1989). There is also Salanic's finding that individuals generally have a strong desire to appear rational and consistent in social situations. This finding from Salanic suggests that individuals in an impression management situation would exhibit higher commitment, even if their goals were set too high.

Although an impression management situation is essentially a public situation, I predict that this claim is not the case when a goal has been set purely for impression management purposes, i.e. there is less commitment when a goal has been set purely for the purpose of impression management. A goal set purely for impression management will result in a person feeling less attachment to the goal.

There are multiple reasons behind this prediction. Essentially, if a goal setter is setting a goal purely for impression management purposes, goal commitment may be affected for one of two reasons: the goal might not be considered to be personal or the goal may be displaced to a different goal.

A possible explanation of lowered commitment to a goal is that an individual may not fully consider the goal as his own. As mentioned previously, Latham et. al, (1994)

studied the affect of assigned vs. participative goal setting. It was found that commitment was higher in a participative situation, or when a goal setter has a say in the goal. By setting a goal for impression management purposes, a goal setter is, in fact, not setting a goal for himself, but for the manager (or whoever the goal setter is intentionally trying to impress). This goal is not the goal setter's own, and becomes similar to an assigned goal. Without the feeling of personal connection to the goal, the goal setter will feel less commitment, which can lead to lower performance.

A lowered amount of commitment could also be due to goal displacement; when an individual becomes dissatisfied with a goal, and alters it to another, different goal (Mischels, 1962, Gross & Etzioni, 1985). In the case of personal goals, the most common reason for goal displacement would be that the individual is not happy with the original goal, or that the goal is no longer attractive. If a goal setter feels that the benefit of reaching the instrumental goal is not high, he may choose to replace it with a more attractive option. In the case of an impression management induced goal, it may be more attractive to receive the benefit of a manager's admiration than to receive the bonus awarded for goal completion. Attractiveness of goal attainment is a major determinant of goal commitment (Hollenbeck et. al, 1989) and, therefore, if the goal is not attractive to the goal setter, commitment will drop.

In an impression management situation, if an individual's goal has been set to impress a manager, that becomes the driving force behind the goal. In a sense, the individual's goal has shifted from the actual selected goal to impressing the manager. For example, instead of having a goal of selling 100 units in a week, the goal has been displaced and is simply to impress the manager. In this case, the commitment to the goal is

still there, but the commitment is directed towards the goal of impression management, rather than the instrumental goal of selling 100 units in a week. Once the objective of impressing the manager has been reached, the commitment is no longer necessary, and may disappear. In a sense, the instrumental goal is only there for the goal setter to serve as a tool for reaching the goal of impression management. After the impression management goal has been reached, the organizational goal no longer serves a purpose for the goal setter and the goal setter no longer is committed to that goal.

The differences between the two possible explanations for lower commitment may seem trivial; the goal may have already become displaced when a goal is set for impression management purposes. However, there is a very important difference between the two situations: goal acceptance. Previously, goal acceptance was described as the initial acceptance of a goal (Hollenbeck & Klein, 1989). The organizational goal is fully accepted to in the first situation, but then is displaced by the goal of impression management. In the second situation, the acceptance of the instrumental goal is never really there. The individual has simply set the instrumental goal because the company had asked him to; the actual goal is set in order to impress a manager.

Hypothesis 2:

As the desire to manage impressions increases, an individual will have less commitment to the goal

Methodology

Participants and Design

Research participants were 20 sales employees employed at various firms across the United States, who were then engaged in a GoalQuest™ program. This program is one of the many business improvement solutions developed by BI Performance for companies in the United States and Europe. With the help of BI Performance, companies develop goal programs, GoalQuest™, for their employees.

BI Performance's GoalQuest™ program uses a specific version of the participatively-set goal. In the case of GoalQuest™, each company works with BI Performance to develop 3 different goal levels. Every employee who participates in the GoalQuest™ program selects one of the goals that their own company has created. This type of goal is both assigned, in that each company assigns certain goal levels, and self-set, as each individual has the option of selecting one of the assigned goals.

Upon attainment of a goal, an employee is awarded a certain number of "AwardperQs", which may be used towards the purchase of such things as travel rewards and merchandise. The number of AwardperQs is dependant on goal selection and the amount that they actually sold. A person who performs at the highest goal level but selects the lowest goal would only receive the bonus associated with the lowest. There is a higher incentive for choosing and reaching a higher-level goal than a lower-level goal. For example, if two employees both achieve level 3 performance in the same goal program, but one of the two chose the 3rd level goal, and the other chose the 2nd level goal, the individual who chose the 3rd level goal would earn more AwardperQs.

With experience in the program, accuracy should increase and more people should choose the correct goal.

Procedure and Apparatus

The main task of the experiment was the goal selection. Each of the participants was given the option to participate in the experiment after selecting a goal. If a participant chose to opt in, he was forwarded to a short recruitment webpage. The webpage explained the study and gave each subject the opportunity to opt out of the experiment. Following the recruitment letter, the survey was presented to each participant. The survey asked each participant about his commitment and expectancy to achieve the goal. This survey was stored on a separate server. Each individual's responses were recorded and stored in an online database.

The questionnaire contained questions on commitment to the goal and expectancy of achieving it. Goal commitment questions were taken from Hollenbeck, Williams and Klein (1989), and self-efficacy scale questions were from Chen, et. al (2001). There were also some additional questions added regarding the impact of impression management on the goal set. Although there is a standard impression management scale, the Balanced Inventory of Desired Responding (Paulhus, 1984; Paulhus, 1998), these questions were not sufficient for the purposes of this thesis, as the questions are not focused on impression management in an organization. As a result, other questions, which focused on impression management in organizations, were developed for this study. These additional questions were categorized into two separate factors: a factor for *impression management* and a factor for *firm practices*. The impression management questions were the following: *I hope that my boss will be impressed with my goal selection* and *I hope that my peers will*

be impressed with my goal selection. The questions related to firm practices were the following: *I think that most bosses would want to see high goal selections, It is common practice in my firm to discuss our goals with each other and I will share my goal with my peers.* These 5 questions were defined as IM1, IM2, IM3, IM4 and IM5 respectively.

A seven-point Likert scale was used in the survey to facilitate more differentiation within the data. In the standard impression management scale, the BIDR, the instructions are to use a seven-point Likert scale. The format of the questions and the layout is exactly the same as the guidelines for the BIDR. The rest of the questions can be found in Appendix A.

Results

Since the questions regarding impression management are new, an exploratory factor analysis was used to determine whether these questions accessed one or more factors. Two separate factor analyses were run. First, an exploratory factor analysis was done on all variables to determine the number of items that could be combined into each factor. Second, a confirmatory factor analysis was applied to those scales that had been used in the past.

Factor Analyses

A full exploratory factor analysis was used to determine whether the impression management questions actually pointed to an impression management factor, or whether the impression management questions were captured in other variables. Using a varimax rotation, it was found that there were 6 factors that can be derived from the data. The

results, shown in appendix B, indicate that a 6-factor analysis is not good for describing the data set.

Exploratory Factor Analysis: Impression Management

An exploratory factor analysis was done on the factors that were developed for this survey. By not limiting the factors to any specific number, it was found that there were 2 factors from the 5 questions asked, one factor for the first two questions and a second factor for the remaining three.

The five impression management factors were also forced into one component using a confirmatory factor analysis. Although this factor analysis produced a factor with fairly high values, the reliability was much higher when using 2 separate factors. The Cronbach's alpha for all impression management questions was 0.754 while separating the 5 questions into 2 categories yielded Cronbach's alphas of 0.804 and 0.796 for the component consisting of IM1 and IM2, and the component consisting of IM3, IM4 and IM5 respectively.

Therefore, it was a better fit for the impression management scale if the 5 questions were split into 2 separate components. A compelling argument can also be made to separate the impression management questions into 3 components with IM1 and IM2 as the first, IM3 by itself and IM4 and IM5 together.

The Cronbach's alpha for the first component of impression management was the same. There were no reliability calculations for the component consisting of IM3 since there was only one question, and the Cronbach's alpha for the last two questions is 0.808.

Although the overall reliability was higher, a factor analysis needed to be done in order to determine whether the 5 factors actually fell into 3 components. As shown in

Appendix B, a 3-component model does not work for the impression management factors. It appears as though IM3 falls nicely into the second component, but IM5 is now separated into two different components. Therefore, the 2-component model is best at separating the impression management factors.

By comparing the impression management questions, two clear differences in the questions can be seen. The first two questions – *I hope that my manager will be impressed with the goal I just selected for this program*, and *I hope that my co-workers will be impressed with the goal I just set for this program* – are directly asking the individuals impression management objectives for their goal. The last three questions – *I will share the goal I just selected for this program with my peers*, *I think that most managers would want to see high goal selections*, and *It is common practice in my firm to discuss our goals with each other* – are directly related to the common practices in the goal setters' firm. As such, it makes sense to split the impression management questions into two components: a component for the actual impression management and a component for the firm practices related to impression management.

Confirmatory Factor Analysis: Goal Commitment and Self-Efficacy

The initial exploratory factor analysis does not seem to accurately capture the goal commitment and self-efficacy scores, which have been shown to be quite separable in previous studies. Therefore, a confirmatory analysis was first run on the goal commitment and self-efficacy survey questions. It seems as though goal commitment is captured fairly well with the first component, but the self-efficacy questions seem to be spread out among both of the components.

Forcing the goal commitment questions into one component, and the self-efficacy questions into a second component yields a fairly reliable data separation set. A reliability analysis was run on each of the two components and each was found to be fairly reliable. The respective Cronbach's alpha for the goal commitment and the self-efficacy components were 0.84, 0.787 and the number of items was 9, and 8 respectively.

A troubling result from this separation is the negative value for the first self-efficacy question. The value obtained for the first self-efficacy question through the varimax rotation appears as though it should be negatively coded. Clearly the question, *I will be able to achieve most of the goals that I have set for myself*, is stated such that a high value should be correlated with high self-efficacy and should not be negatively correlated with any of the other self-efficacy questions.

Goal Selection

The data was split into two sections: data collected from employees who had an average manager impressing score below or equal to the global median, and data collected from those with an average manager impression score above the global median. The average for those who reported an above median impression management score was higher ($M = 2.25$, $SD = 0.707$) than the participants who reported an impression management score below the median ($M = 2.2$, $SD = 0.837$). However, this finding is not conclusive due to the lack of data, and the small difference between the two means. The t-value, $t(11) = -0.11589$, $p < 0.91$, was very low, which indicates that the two means cannot be seen as statistically different.

Since there are three separate goal levels that could have been chosen for each participant, a comparison of the distributions between the above median and below median describes the results. Table 1 shows the result of such a comparison.

Table 1: The distribution of goal levels for the above and below median separations of impression management and self-efficacy

Goal Level	Impression Management		Self-Efficacy	
	Below Median	Above Median	Below Median	Above Median
1	20%	13%	17%	14%
2	40%	50%	50%	43%
3	40%	38%	33%	43%
$\chi^2 = 0.184, NS$			$\chi^2 = 0.124, NS$	

Goal Commitment

Table 2 shows the result of the correlation of goal commitment to impression management and self-efficacy. As the results show, goal commitment is highly correlated to both impression management components, and the self-efficacy component. In fact, with the two impression management components, goal commitment is correlated at the 99% and 95% confidence interval. These findings indicate that there is indeed a relationship between goal commitment and impression management.

Table 2: The correlation between goal commitment, impression management and self-efficacy

Correlations						
	Mean	St. Dev	GCAVG	IMAVG1	IMAVG2	SEAVG2
GCAVG	5.480	0.985	-	-	-	-
IMAVG1	5.100	1.401	0.690(**)	-	-	-
IMAVG2	5.278	1.210	0.497(*)	0.341	-	-
SEAVG2	6.114	0.720	0.660(**)	0.249	0.490(*)	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Next, a regression model was run in order to determine the relationship between the first impression management variable, the self-efficacy component and the goal

commitment. The second impression management variable was omitted from the regression model, as the correlation is not as strong as the first variable and the self-efficacy component. Also, it seems as though the second impression management factor was related to the firm practices and did not fully cover impression management. A separate variable representing the interaction between self-efficacy and impression management was also included in the regression model. This variable was calculated by multiplying IM1 with SEavg.

Table 3: A regression model of goal commitment on impression management and self-efficacy

Regression Model				
	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	-11.186	2.870	-3.898	0.002
IMAVG1	2.480	0.557	4.450	0.001
SEavg	2.493	0.488	5.106	0.000
SE-->IM	-0.352	0.093	-3.771	0.002

The data shows that both the first impression management factor and the self-efficacy factor having a strong effect on goal commitment. However, there is also an effect of the interaction between self-efficacy and impression management on goal commitment. In order to reconcile the correlation, specifically the negative beta value, between the SE and IM interaction and goal commitment, two separate case regression models were run: low self-efficacy and high self-efficacy. As can be seen from Table 4, the relationship between IM1 and goal commitment is significant when the self-efficacy is low, but not when the self-efficacy is high. This indicates that individuals who have lower self-efficacy are likely to use impression management in the goal setting process, and individuals who have high self-efficacy are not.

Table 4: The regression models for low and high self-efficacy

		Regression Model			
		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
LOW SE	(Constant)	1.125	0.474	2.374	0.640
	IMAVG1	0.777	0.095	8.197	0.000
HIGH SE	(Constant)	5.016	0.649	7.730	0.000
	IMAVG1	0.161	0.118	1.355	0.212

a. dependant variable: GCAVG

General Discussion

The data set produced results that did not confirm hypothesis 1, that a higher desire to manage impressions leads to higher goals set. The results of the chi-square test on the goal setting data indicate that the prediction may be accurate, but there is not enough power to assume that this relationship is as stated, and as such there is no effect. Very high p-values suggest that it is not a data problem.

A positive correlation was found between impression management and goal commitment. Essentially, a higher desire to impression manage led to a decreased amount of goal commitment, which is the opposite of that which was originally predicted. There is a strong correlation between an individuals tendency to impression manage and his respective goal commitment, but the findings indicate that a higher tendency to impression manage leads individuals to have higher goal commitment. This finding is stronger for participants who are high in self efficacy.

Although there is a strong, positive correlation between an individual's goal commitment and the desire to impression manage, it may not be that the original prediction is incorrect. Two findings from the data help explain the seemingly incorrect prediction.

First, it was found that individuals who were high in self-efficacy did not use impression management as much as those who reported lower self-efficacy scores (table 4).

Since many of the participants were high in self-efficacy, the results may have been based on results from participants who are high in impression management even though they may not have responded with a high impression management score.

Secondly, it was found that goal selection did not increase with a higher desire to impression manage. A goal that is not overstated should not result in a decrease in goal commitment. There are two other aspects of the collection process and participant pool that may contribute to findings that differ from the hypothesis: there is a lack of data and none of the participants had low goal commitment.

These findings suggest that the individuals in the study were, in fact, setting accurate goals rather than setting their goals solely to impress their manager. Recall from hypothesis 1 that there are two different situations that may occur when a goal setter is setting a goal with impression management objectives. Since these participants still had a high degree of goal commitment, it can be said that they were in goal levels that they could effectively achieve and did not overstate their goals.

Due to a limited data set, an important issue that contributed to these findings to consider is selection bias. Since the participants had to opt-in to the study rather than being forced into participating and given the option to opt-out, there is a chance that the participants are not representative of the entire participant pool. Samuelson & Zeckhauser (1988) have shown that participants generally want to continue doing whatever they are doing, rather than having to make a special effort to participate (status quo bias). The participants who are making a special effort to participate may already be satisfied with their goal selections and, therefore, be highly committed to their goals.

Since participants were not forced to take part in this study, there is little variance in the participant population. Those who did participate may in fact already have high goal commitment. If an individual is not committed to a goal, he may not be likely to participate in a study involving it. Whether the intention was to manage impressions is secondary to the fact that each participant may already have high goal commitment. A selection bias also leads to a lack of variance in both goal commitment and impression management scores.

Out of the 20 participants, only one person reported low goal commitment. Since the vast majority of participants had high goal commitment, it is hard to determine the impact of impression management on goal commitment without a full scale of goal commitment to use.

Similarly, there was not a full range of impression management scores. There was only one participant who reported a low impression management score. It is still possible that higher goal commitment will be correlated with higher impression management, if impressing the manager was the only purpose of goal setting for the participant.

Limitations and Further Research

Sample Size and Lack of Data

One of the major limitations of this paper is the limitation of the data. The fact that there was a significant finding using only 20 participants may suggest that a correlation does exist between goal commitment and impression management; this fact also suggests that the findings are not conclusive.

Although the survey was not time-consuming and the recruitment procedure was not unusual, only 20 out of a pool of a few hundred actually participated in the study. This

lack of participants led to results with very little power and variance. One reason for this lack of data was that there was no extra incentive for individuals to participate. Since incentives have been shown to increase response rates (Brennan, 1992; Church, 1993; Dommeyer, 1988), future studies could include incentives for participants in order to generate more data. An example of an incentive that might work for this study is an extra BI GoalQuest™ point. Since the participants are already involved in a BI program, an extra GoalQuest™ point would be desirable to them. Also, Aquilano (1994) found that delivering, administering, and collecting surveys in-person could increase the response rates. Therefore, in future studies it may be worthwhile to run an information session and deliver the surveys in person for potential participants as it would generate more participation.

The small number of responses contributes to another limitation of the paper. Previously, a median split on impression management was used to separate the data into two halves, but it is also possible to separate impression management by a binary scoring method. The main reason behind scoring the questionnaire in this fashion is that impression management is essentially binary, either a person is driven by impression management (having a 6 or 7 on both variables contributing to the first IM factor) or he is not. For our data set, a binary separation resulted in the same separation as a median split on the impression management variable and, thus, the same results. An increase in the amount of data would generate more variance in the impression management scores, which might help determine the true impact of impression management on goal commitment.

There is also little performance data for the participants. Without proper performance data, it is hard to determine the actual effect of impression management on

goal setting. It is conceivable that other factors, such as peer and managerial pressure, will keep a goal setter motivated towards a goal. I feel the results from such an analysis would be very important to the full study of the effects of impression management.

Although the response rates were very low, there have been studies that suggest that surveys with low response rates can be more accurate than surveys with much higher response rates (Kosnick, 1999). For example, Visser et. al (1996) compared the accuracy of self-administered mail surveys and mass telephone surveys. The respective response rates were 20% and 60%, but the self-administered survey was much more accurate in predicting voting outcomes. Some research has been performed that points to voting norms. It was suspected that a voter who was coerced to submit survey results (the mass telephone survey) would probably not have voted and therefore, his vote would not count towards the actual voting outcome.

Another interesting form of lack of data is the lack of goal level separation data. The GoalQuest™ program is set up so that each individual is only able to select from a discrete goal level of low, medium or high. Recall from goal setting theory that an ideal goal is a goal that is at the maximum of an individual's ability. Since the ability level of most individuals may not coincide with exactly one of the predefined goal levels, it may be worthwhile to look at continuous goal levels in future studies. When a participant is able to select from any goal that he wishes, a more accurate determination of the impact of impression management may be found.

Power/Influence

There are two separate directions of future research that could be dedicated to the topic of power or influence. The first is to see which type of power would work best in a

goal setting situation. Since it was found that impression management has an effect in goal setting, it would be worthwhile to study which basis of power would provide for the ‘best’ amount of impression management-focused goal setting. As demonstrated by the computer company case study in the introduction, coercive power is not a basis of power that works well in a goal-setting situation.

Based on French and Raven’s (1959) five different bases of power: reward, coercive, legitimate, referent, and expert, I suspect that reward power will be the best bases of power to use in a goal setting situation. A likely result from reward power is a higher desire of the goal setter to gain the reward. If the goal setter has a high desire to receive the reward, he may be more committed to the goal and, thus, have a higher possibility of achieving that goal.

A second consideration when looking at power or influence is the degree to which an individual feels that a manager can be impressed and the power that the manager possesses. The desire of an individual to impression manage will likely stem from answers to these two questions. One of the impression management questions, *I think most managers would like to see high goals*, inadvertently hints at this concept, but more question options could be developed to fully capture and explain this concept.

Degree of Stretch

The level that a goal setter chooses for a program does not fully capture the goal setting construct. Some participants are simply able to perform at a higher level than others. Therefore, a much better way to study goal setting is by looking at the amount by which each individual has overstated his or her goal. This amount, the degree of stretch, is the difference between each individual’s normative goal and the actual goal set. Due to the

lack of data, the degree of stretch could not be calculated for many of the participants in this experiment, but would be a very valuable tool to study in the future.

Each individual's normative goal can be calculated by using his own efficacy beliefs. Each individual's efficacy belief is used along with his firm's payout scheme to determine a normative goal. Essentially, a normative goal is the goal that should have been selected if the individual was selecting a goal purely based on individual characteristics.

The difference between the normative goal and the selected goal may be positive or negative. By studying this difference, an important issue brought up in the 1st hypothesis can be analyzed. Previously, it was stated that there were two possible explanations of a higher goal being selected when a goal setter has a higher desire to manage impressions: the goal selector is selecting a 'proper' goal, and the non-impression managed goal is hedged in order to ensure that the goal is being reached, or the goal selector selects an inflated goal to impress a manager, and the non-impression managed goal is an accurate goal.

In the first situation, an impression management driven goal setter is influenced to set a 'proper', accurate goal. By making employee goals personal (i.e. no impression management), a manager is actually encouraging employees to 'hedge' or to set a goal that is lower than their normative goal. This is done so that the goal setter will ensure that the goal is met. By using a continuum of task ability, with high and low task ability at the extremes, as an example we can describe the differences between the two cases. Each employee's actual task ability, what each is realistically capable of, is set somewhere in between these two extremities. When employees have a desire to manage their images, they would likely set a goal closer to their actual task ability to show that they are realistic

goal setters. A non-impression-managed goal would lead employees to hedge so that they are guaranteed to complete their goal and receive the resulting pay off.

In the second situation, the individual will set a higher goal in order to impress a manager. In the non-impression management condition, a goal setter will set a goal that accurately represents what he feels he is capable of achieving. We can explain this further by using the same task continuum. In this case, making an impression management directed goal would compel the employee to set a goal between actual task ability and the high task ability extreme. This selected goal basically means that the goal setter is setting a goal higher than he believes can be realistically achieved. A personal (non-impression managed) goal would lead the employee to set a goal that he feels can be achieved, or a selected goal close to his normative goal. In the impression-managed situation, the goal setter would maximize gain by setting a goal towards the high task ability extreme.

The sign of the degree of stretch will establish which scenario has occurred. A positive degree of stretch indicates that the set goal is higher than the normative goal, which means that the goal selector selected an improper and overstated goal in order to impress his boss. A negative degree of stretch indicates that the goal selector has set a lower goal than what he feels he can normatively complete, which points to hedging.

It is likely that both situations will appear in the organizational world. Other factors, such as goal attractiveness, would determine the likely scenario. If goal attainment is attractive for the goal setter, the first situation would probably describe the behaviour, as it would result in the goal setter guaranteeing that the goal is achieved. However, if there is not very much incentive in reaching the goal or if the goal is not attractive for the goal setter, the second scenario would be more likely. The second scenario is indicative of the

goal setter using the goal to impress a superior. In future research, designing a survey to ask about the goal attractiveness, may help identify which scenario occurs most often in goal setting situations.

Temporal Effects

Work motivation can be broken down into four separate dimensions: *form*, *direction*, *intensity*, and *duration* (Pinder, 1998). The effect of impression management on Pinder's duration dimension could be the focus of another paper. It would be interesting to see if a longer duration would lead to a more accurate goal, as an employee is able to learn more about his personal capabilities. It is conceivable that an individual would be more likely to set an accurate goal if he knew his capabilities of and how to best achieve a goal. With more time, the amount of accuracy should increase and more people should be choosing the right goal. If a goal setter is still setting goals at an inflated rate after multiple goal selection periods, it is likely that impression management is having an effect on the goal selection process.

There is also the effect of time on the benefits of impression management. After one period of using impression management as a tool to impress a manager, a goal setter may not need to continue to manage his impression. In a sense, the manager has already seen that the goal setter is a valued employee through the first goal selection.

An extension to this temporal effect on impression management that has not been studied in this paper is a situation in which a manager has full access to each employee's goal performance. Locke et. al (2002) argued that feedback is an important moderator to goal setting in a repeat goal setting situation. If an employee consistently sets a very high goal, but never performs to that level, the use of the goal as an impression management

tool is no longer practical for that employee. In this case, the employee may be doing more damage than good to the impression formed by his manager. For companies that employ the GoalQuest™ program, many managers may have the option of not seeing every individual goal. Goal selectors may be able to take advantage of this and select an impression management directed goal.

Conclusions

Although there were only 20 participants in the study, some conclusions can be drawn. First, there does not seem to be an effect between an individual's desire to impression manage and that individual's goal selection. The second finding is that there is a positive correlation between an individual's desire to impression manage and goal commitment. A higher desire to impression manage seems to lead to a higher degree of goal commitment.

The findings are important to the field of goal setting and impression management as it gives some insight into how an employee will set goals. It appears from the data that individuals in an impression management situation do not set higher goals, and do not suffer from a decrease in goal commitment. A very interesting finding is that impression management seems to have a larger effect on individuals who have lower self-efficacy. This finding indicates that companies who have employees who are not high in self-efficacy may find more employees using impression management in goal setting situations.

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Appendix A

The Website Survey

Hello, my name is Raymond Chin and I am a Masters student in the department of Management Sciences at the University of Waterloo. I am currently conducting research under the supervision of Dr. Scott Jeffrey on goal setting and goal commitment. As part of my thesis research, I am asking you to take part in a web based survey.

BI and your company have authorized the research team to contact you to request participation in this study. The information which is required by the study will use a web-based survey which consists of one short survey. The survey is 23 questions and is below. The survey itself will take about 10 minutes at most. We will be able to use your survey results to further both research in goals and provide your company and BI Performance with in-depth information on how to set goals.

Involvement in the survey is entirely voluntary and there are no known or anticipated risks to participation in this study. Please answer every question as honestly as you can. If you would not like to answer a certain question, you may decline to answer by clicking on "NA". You are also given the option of terminating the survey at any time by clicking on "Cancel" at the bottom of the survey. Should you choose to terminate the survey, your results will not be recorded.

Please enter your GoalQuest User ID:

Your employee code is requested only so that we may merge your data from both surveys. Once this data has been merged, your employee code will be removed.

Part A:

1. In your honest opinion, how likely (in percentage form) are you able to reach the following goals? For example, if I felt that I could definitely reach a goal of 100 units sold fairly, the percentage form would be 100%. If I felt that I could never reach a goal of 1000 units sold, the percentage form would be 0%.

Please remember that these responses must be decreasing. For example, it would not make sense to have a higher likelihood of achieving a goal level 100 items sold than achieving a goal of 50 items sold.

Base +3%: %

Base +7%: %

Base +13%: %

Base +17%: %

Part B: To what extent do you agree with the following statements?

Please recall the goal that you just set, and answer the questions with respect to that goal.

2. I hope that my manager will be impressed with my goal selection

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. I hope that my co-workers will be impressed with my goal selection

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. I will share my goal with my peers

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. I think that most managers would want to see high goal selections

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. It is common practice in my firm to discuss our goals with each other

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. It's hard to take this goal seriously

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. It's unrealistic for me to expect to reach this goal

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Quite frankly, I don't care if I achieve this goal or not

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. I am strongly committed to pursuing this goal

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>						

11. It would not take much to make me abandon this goal

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

12. I think this is a good goal to shoot for

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

13. There is not much to be gained by trying to achieve this goal

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

14. I am willing to put forth a great deal of effort beyond what I'd normally do to achieve this goal

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

15. Since it's not always possible to tell how the market will respond, it is hard for me to take this goal seriously

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

16. I will be able to achieve most of the goals that I have set for myself

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

17. When facing difficult tasks, I am certain that I will accomplish them

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

18. In general, I think that I can obtain outcomes that are important to me

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

19. I believe I can succeed at most any endeavor to which I set my mind

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

20. I will be able to successfully overcome many challenges

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

21. I am confident that I can perform effectively on many different tasks

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

22. Compared to other people, I can do most tasks very well

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

23. Even when things are tough, I can perform quite well

Strongly Disagree	Disagree	Slightly Disagree	Neither Agree or Disagree	Slightly Agree	Agree	Strongly Agree	N/A
1	2	3	4	5	6	7	N/A

All of your answers are strictly confidential and you will not be personally identified with them. Only the two researchers will have access to the data and it will be retained for 10 years in a secure location at the University of Waterloo. We will combine all survey responses to perform our analysis, and only the combined results will be shared with the management of BI and your company.

If you have any questions regarding this study, or would like additional information to assist you in reaching a decision about participation, please feel free to contact Raymond Chin at 1-519-888-4567 ext. 3675 or Dr. Scott Jeffrey at 1-519-888-4567, ext. 5907.

I would like to assure you that this study has been reviewed and received ethics clearance through the Office of Research Ethics. However, the final decision about participation is yours. Should you have any comments or concerns resulting from your participation in this study, please contact the Office of Research Ethics at 1-519-888-4567, Ext. 5217 or by email at ohrac@uwaterloo.ca.

I would like to take this opportunity to thank you for participating in this study. We hope that this study will be an important addition to science and, therefore, your contribution will be very useful for the field of goal setting as well as for your company.

Raymond Chin

Appendix B

Data Tables

Rotated Component Matrix(a)

	Component					
	1	2	3	4	5	6
IM1	0.707	-0.125	0.328	0.539	-0.083	-0.025
IM2	0.505	-0.092	0.097	0.698	-0.201	-0.216
IM3	0.182	0.198	0.163	0.909	0.086	0.027
IM4	0.043	0.924	-0.043	0.087	-0.071	-0.026
IM5	0.208	0.729	0.003	0.535	0.089	0.227
GC1	0.673	0.222	0.47	0.204	0.317	0.051
GC2	0.188	-0.028	0.088	-0.013	-0.194	0.923
GC3	0.917	0.18	0.098	0.195	0.075	0.205
GC4	0.903	0.09	0.167	0.183	0.05	-0.033
GC5	0.939	0.2	0.15	-0.078	0.115	-0.028
GC6	0.848	0.327	0.204	-0.016	0.118	0.052
GC7	0.295	0.487	-0.242	0.247	-0.268	-0.392
GC8	0.816	-0.03	0.018	0.247	0.219	0.031
GC9	0.297	0.033	0.853	0.044	-0.178	-0.054
SE1	-0.346	-0.01	-0.207	-0.079	-0.871	0.117
SE2	0.212	0.021	0.709	0.301	0.304	0.295
SE3	0.688	0.056	0.601	0.161	0.17	0.13
SE4	0.18	0.573	0.63	0.001	0.405	0.042
SE5	0.1	0.959	0.102	-0.001	0.136	0.024
SE6	0.045	0.883	0.2	0.022	0.228	-0.04
SE7	0.137	0.455	-0.088	-0.145	0.788	-0.119
SE8	0.37	0.695	0.012	-0.432	0.176	-0.31

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.

Rotated Component Matrix(a)

	Component	
	1	2
GC1	0.84	0.33
GC2	0.432	-0.23
GC3	0.882	0.264
GC4	0.843	0.146
GC5	0.803	0.405
GC6	0.758	0.484
GC7	0.079	0.46
GC8	0.779	0.086
GC9	0.602	0.156
SE1	-0.505	-0.366
SE2	0.67	0.081
SE3	0.914	0.186
SE4	0.404	0.659
SE5	0.043	0.851
SE6	0.174	0.866
SE7	0.166	0.777
SE8	0.182	0.865

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

Rotated Component Matrix(a)

	Component		
	1	2	3
GC1	0.656	0.299	0.553
GC2	0.259	-0.236	0.364
GC3	0.914	0.191	0.251
GC4	0.895	0.071	0.201
GC5	0.87	0.333	0.188
GC6	0.765	0.427	0.268
GC7	0.444	0.394	-0.459
GC8	0.82	0.018	0.193
GC9	0.298	0.164	0.636
SE1	-0.354	-0.356	-0.404
SE2	0.225	0.107	0.853
SE3	0.661	0.16	0.662
SE4	0.093	0.69	0.625
SE5	0.063	0.853	0.056
SE6	0.14	0.867	0.174
SE7	0.165	0.772	0.117
SE8	0.358	0.828	-0.124

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 6 iterations.

Rotated Component Matrix(a)

	Component	
	1	2
IM1	0.898	0.025
IM2	0.894	0.051
IM3	0.62	0.633
IM4	-0.128	0.883
IM5	0.212	0.928

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 3 iterations.

Component Matrix(a)

	Component
	1
IM1	0.654
IM2	0.67
IM3	0.886
IM4	0.532
IM5	0.805

Extraction Method: Principal Component Analysis.

a 1 components extracted.

Rotated Component Matrix(a)

	Component		
	1	2	3
IM1	0.883	0.21	-0.048
IM2	0.914	0.155	0.034
IM3	0.38	0.888	0.139
IM4	-0.033	0.204	0.969
IM5	0.071	0.755	0.595

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 5 iterations.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.184(a)	2	0.912
Likelihood Ratio	0.182	2	0.913
Linear-by-Linear Association	0.015	1	0.904
N of Valid Cases	13		

a. 6 cells (100.0%) have expected count less than 5. The minimum expected count is .77.