# The Impact of Goal Setting on Employee Effectiveness to Improve Organisation Effectiveness: Empirical study of a High-Tech Company in Singapore

# Dr. TEO, Teck Choon

Head, School of Business, London School of Business and Finance, Singapore
Postdoctoral Researcher
Singapore

# Prof. Dr. LOW, Kim Cheng Patrick

Visiting Professor (Human Resource Management) University of the South Pacific, Suva, Fiji And Associate, Singapore Human Resources Institute (SHRI)

#### **Abstract**

This paper presents the results of a business research project conducted by the researchers in XYZ (Singapore) Pte Ltd, which is a Hi-Tech semiconductor test systems and equipment company in Singapore. The research question is: "Does goal setting have an impact on employee effectiveness and ultimately improves organisation effectiveness?" The researcher developed a conceptual model on goal setting and its relationship with employee effectiveness and organisation effectiveness. Three hypotheses formulated for this study were tested for its validity and reliability through a qualitative research. The literature search and review provided sufficient evidences to support the three hypotheses and its linkages. Consequently, an empirical study was carried out in XYZ Singapore to test the three hypotheses. Justifications are provided for the study methodology adopted as well as in relation to theoretical and empirical significance of the study. Relevant ethical issues in the data collection are also highlighted. The findings of this empirical research suggested that the three hypotheses tested are valid and reliable and are evident in their organisation. There was unanimous concurrence amongst the research interview participants that goal setting has a role to play in the relationship depicted in the conceptual model and that it has an impact on employee effectiveness and ultimately improves organisation effectiveness.

**Keywords:** goal setting, employee effectiveness, organisation effectiveness, conceptual model, performance.

#### 1. Introduction

The theory of goal setting has been extensively researched in the past four decades. Mitchell and Daniels, 2003, p. 231 (cited in Latham & Pinder, 2005, p. 496) argue that goal setting "is quite easily the single most dominant theory in the field with over a thousand articles and reviews published on the topic in a little over 30 years". The term "goal", is a common concept that encompasses other concepts like "intention, task, deadline, purpose, aim, end and objective" and is deemed as a "regulator of action" (Locke & Latham, 1990, p. 2). Significantly, according to Hale and Whitlam (1998, p.1), "whether they are known as goals, targets or objectives, organisations are constantly seeking ways of achieving them because "target setting is seen as a means of helping all employees to pull in the same direction with a view to gaining competitive advantage." Locke and Latham (1990, p. 45) reinforced the argument that "There is strong reason to conclude that goal setting works at the group and organisational (or unit) level as well as at the individual level."

In this connection, organisations, like XYZ, have also come to realise that to be relevant in the current competitive and globalised business environment, there is a need to constantly re-assess its competitive imperatives to remain viable and competitive. XYZ's Management is fully aware that enhancing its employees' effectiveness through a performance management system can facilitate its efforts to sustain and improve organisational effectiveness. This awareness is supported by the research findings from Rheem,1996 and Glenndinning, 2002 (cited in Compton, 2005, p. 46) that there are "ample evidence to suggest that companies which utilise performance management systems can strategically perform more effectively..."

This line of reasoning is also echoed by Humphreys (2003, p. 96) who posited "to remain competitive today, firms need the valuable expertise and the enthusiastic commitment of employees at every level. If handled properly, effective goal setting will enable the organisation to benefit from both."

The above arguments concerning the relationships between goal setting, employee effectiveness and organisation effectiveness as key variables are further explored in this study. A conceptual model and three hypotheses based on the key variables were developed. Using a qualitative research approach, the three hypotheses were empirically tested for its reliability and validity in XYZ. The study aims to investigate and answer the following research question: "Does goal setting have an impact on employee effectiveness and ultimately improves organisation effectiveness?"

# Conceptual Model

The critical concepts identified for this research investigation are (a) goal setting, which is observed as the independent variable, (b) organisation effectiveness, a dependent variable and (c) employee effectiveness, which is deemed as the intervening variable as it is both a product of the independent variable and a cause of the dependent variable. The three identified variables can be defined as follows:

# (a) Goal setting

Sauers and Bass (1990, p. 30) state that goal setting has been widely researched over the past thirty years. The authors define goal setting as "a formal program of setting numerical or quantitative performance goals for individuals" and that "all formal goal setting programs share the common objectives of increasing employee motivation and performance." The importance of goal, is aptly defined by Mills (2002, p.41) as representing "a way of keeping score" and that "by helping employees define their personal goals, managers are putting them on the path towards achieving the organisation goals."

## (b) Organisation effectiveness

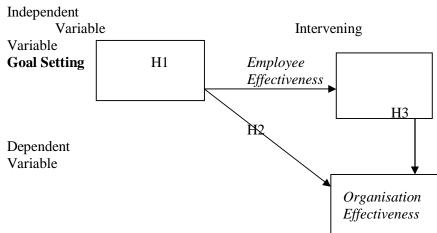
There are many definitions for organisational effectiveness (OE). OE has been defined as "objectives", by Georgopolous and Tannenbaum, 1957, as "goals" by Etzioni, 1960, as "efficiency" by Katz and Kahn 1966, as "employee satisfaction" by Cummings, 1977 and as "organisational vitality" by Colt, 1995 (cited in Cavana, Delahaye & Sekaran, 2001, p. 61). Price and Muller, 1986 (cited in Kraft, Jauch & Boatwright, 1996, p. 101) define "effectiveness as the financial viability of an organisation" using measures like "return on assets (ROA) and return on equity (ROE) while Steers, 1975 (cited in Hitt, 1988, p.31) recommended the goal model as the best approach to measure organisational effectiveness.

#### (c) Employee effectiveness

In relation to the theory of "goal setting", employee effectiveness can be assumed as enhanced level of employee performance that would lead to higher productivity. This assumption is supported by Terpstra and Rozell (1994, p. 286) who noted that the reviews on research, both qualitative (Latham & Lee, 1986; Latham & Yukl, 1975; Locke, Shaw, Saari & Latham, 1981 cited in Terpstra & Rozell, 1994, p. 286) and quantitative (Mento, Steel & Karren, 1987; Tubbs, 1986 cited in Terpstra & Rozell, 1994, p. 286), have confirmed that "goal setting theory applications increase employees' levels of effort and performance" while Katzell and Guzzo (1993, cited in Terpstra & Rozell, 1994, p. 286) reviewed goal setting experiments and found that it led to "improved productivity in 95% of these experiments".

The linkages between the variables are expressed in the conceptual model (Figure 1.0) with three hypotheses (H1, H2 and H3) below:





# Hypotheses:

H1: Goal setting would have a positive impact on employee effectiveness

H2: Goal setting would be positively related to organisation effectiveness

H3: Employee effectiveness would lead to improved organisation effectiveness

#### Literature Review

Goal setting would have a positive impact on employee effectiveness; however, frustrated bosses often wonder why employees don't perform as expected. According to Gilda (1991, p. 4), "the first reason may be that the employee doesn't know what is wanted". This argument supports observations that employees without set goals may find themselves working ineffectively without direction and knowledge as to how they are performing or what value they are adding to the organisation.

Communicating to employees on what is expected in terms of performance and results through goal setting is important. According to Landgon (1999, p. 54), "objectives are still useful for the communication of performance intent". This argument is reinforced by Xavier, (2002, p. 33), who posits that clarifying expectations and the roles and responsibilities of employees through "clear communications and feedback can improve manager and employee effectiveness". Additionally, Mills, (2002, p. 41) pointed out that "people who see the connection between their personal goals and the larger goals of the organisation will have a greater impact on the achievement of those goals than people who see no such connection"

Luthans (1995, p.186-187) in describing the theoretical background of goal setting highlighted that there was also an awareness that goal setting will not work if there was no commitment to the goals, and that "commitment is a moderator of the goal-performance relationship and a meta-analysis found that goal commitment significantly affects goal achievement."

According to Latham (2004, p. 126), "goal is the object or aim of an action". The author contented that people's performances can be improved through specific hard goals or "stretched" goals. He further states, "A goal is a standard for assessing one's satisfaction. In short, employees who are committed to attaining high goals are high performers".

Although the principles of goal setting, enunciated by Edwin Locke in 1968 (Carson & Carson, 1993, p. 80), were not fully embraced by some theorists, like Edward Deming who espoused the Total Quality Management (TQM) concept more than five decades ago, the acceptance and dependence by organisations of goal setting is still valid and real as both "historical and contemporary research support the finding that goals improve productivity" (Carson & Carson, 1993, p. 80). The essence of this argument is also highlighted by the findings of Dobbins, Cardy and Platz-Vieno, 1990 (cited in Roberts, 2003, p. 90) that "goal setting within performance appraisal has been associated with greater appraisal satisfaction, higher job satisfaction, and increased performance". Further research findings by Arvey, Dewhirst and Brown (1978, p. 595), also supported the argument that employee effectiveness, manifested in increased "productivity" is a consequence of "goal setting procedures".

Empirical studies also showed that performance does improve with goal setting as attested by true experiments conducted by Bassett, 1979; Latham and Kinne, 1974; Latham and Locke, 1976, 1978; Latham, Mitchell, and Dossett, 1978; Latham and Sarri, 1979; Nemeroff and Cosentino, 1979; Terborg and Miller, 1978; Umstot, Bell and Mitchell, 1976 (cited in Kondrasuk, 1981, p. 424). These arguments and research findings provide underpinning for the following hypothesis (H1):

# Hypothesis 1 (H1): Goal Setting Would Have a Positive Impact on Employee Effectiveness.

There are ample literature citing research done by scholars and researchers in support of the positive relationship between goal setting and organisation effectiveness. The research works of Chidester and Grigsby, 1984; Guzzo, Jette, and Katzell, 1985; Latham and Lee, 1986; Mento, Steeland Karen, 1987; Tubbs, 1986 (cited in Rodgers & Hunter, 1991, p. 323) revealed, "goal setting consistently was found to increase productivity." It is interesting to note that Steers (1976, p.55) conceptualized increased productivity as 'organisation effectiveness.'

The positive relationship between goal setting and organisation effectiveness can be explained as employees being "more aware of higher level objectives and priorities" through goal setting and "that they must help to carry out" (Simpson, 1993, p. 380). This view is also concurred by William (1990, p.10) in his article "Build organisational success around individual success" that succinctly states that "you get results from individuals". This contention is also supported by an explanation from Atkinson (2005, p 32) that departmental goals should be cascaded down to each employee thus "linking what everyone does on a day-to-day basis with the overall organizational strategy".

A notable finding by Locke and Henne (cited in Margaret, 1993, p. 51) "found that 90% of studies supported Locke's earlier studies showing that goal setting led to increase performance" while Smith et al (cited in Margaret, 1993, p.51) indicated "specific and difficult" goals are "positively related to both the macro and micro levels". Both the arguments would also appear to support the positive relationship between goal setting and organisation effectiveness. Indeed, studies conducted by Terpstra and Rozell (1994, p. 285-293) found that organisations that "used goal setting were more profitable than those who did not" resulting in a "positive relationship between goal setting and profitability" and that "Goal setting constitutes a simple, but potentially powerful means of increasing organisational effectiveness".

These arguments provide support for hypothesis 2 (H2) which is presented:

## Hypothesis 2 (H2): Goal setting would be positively related to organisation effectiveness

Studies conducted by Terpstra and Rozell (1994, p. 291-292) found that ample empirical research has shown that individual performance level increased with the use of goal setting. The authors posit that it's "probable that goal setting applications may also positively influence organisational-level outcomes". The statement, "people and their performance are keys to an organisation's effectiveness" (Michie and West, 2004, p. 91) further supports this research finding.

Interestingly, an investigation conducted by Coote, Price and Ackfeldt, (2004, p. 547), argued, "Goal congruence is related to employees' perception of morale, leadership support, fairness in reward allocation, and empowerment." According to Hart, 1994; Vancouver and Smith, 1991 (cited in Coote, Price & Ackfeldt, 2004, p. 548), goal congruence "exists when employees perceive that their goals and values are a good fit with, and they are committed to, an organisation goals and values". O'Reilly et al., 1991; Vancouver and Schmitt, 1991 (cited in Coote, Price & Ackfeldt, 2004, p. 548) also supported this argument by stating that "goal congruence is associated with behavioral and affective outcomes, such as longer tenure, greater organisational commitment and better job performance".

A survey summary from Terpstra and Rozell, (1994, p.293) contents that goal setting is a powerful means of increasing organisational effectiveness and that "previous research has found that goal setting enhances employee performance and productivity." Thus a high level of employee performance through appropriate goal setting would lead to improved organisational performance. Arvey and Murphy, 1998 reinforced this argument. Mohrman and Albers-Mormon, 1995 (cited in Green Jr, Medlin & Whitten, 2004, p. 108) indicated "effective performance management system link employee performance measures to desired organisational outcomes".

The following hypothesis 3 (H3) is offered based on the research arguments presented above:

# Hypothesis 3 (H3): Employee effectiveness would lead to improved organisation effectiveness.

## Methodology

A qualitative analysis of data from eleven structured open-ended and closed-ended interview questions was carried out to test the validity and reliability of the three hypotheses within the context of the research site.. According to Cavana, Delahaye and Sekaran (2001, p.34-36), "qualitative methods are used within the interpretivist paradigm". It is believed that this qualitative research interviews, through structured open-ended and closed-ended questions, with the participants of this research study can, as argued by Cavana, Delahaye and Sekaran (2001, p.34-36), "have rich potential to uncover relevant and salient information that can be critical to business decision making".

#### **Site and Respondents**

At the time of this empirical study, XYZ, established in 1986, had a headcount of 100 staff.

The researcher formulated the research question "Does goal setting have an impact on employee effectiveness and ultimately improve organisation effectiveness?". XYZ's management approved the research question and also sanctioned the research project. The researcher then communicated with all targeted interview participants who voluntarily consented to be interviewed so as to facilitate the successful execution of the project.

The main participants for this research are managers from the various functions within XYZ, such as sales and marketing, customer support, applications support, logistics and administration departments. The participants profile are varied in terms of managerial level (position), their functions (department or section), gender, age, educational background (level), tenure and number of direct reports (staff) to reflect the demographics of the study participants.

#### **Procedure and Measures**

Prior to the interview, all interview participants were issued with a list of eleven structured open-ended and closed-ended interview questions and a "request for participation". This is to allow them to have a clear and focused mind when they are being interviewed for the research paper. Individual interviews are conducted in a meeting room for privacy and confidentiality reasons. Participants also received the research schedule that is in line with the recommendation of Cavana, Delahaye and Sekaran (2001, p.126-127) used to specify action items "including a timetable of the duration and completion dates of the critical steps in the research project".

The unit of analysis for this research project is the individual manager, as interview data gathered from each of the managers will be treated as an individual data source. The study is a cross-sectional case study as the interview data was gathered over a period of three weeks through scheduled personal interviews subject to their individual work schedule. The interview duration was targeted between 45 minutes to 60 minutes. Interviewees are informed that the contents of the interview will be taped for accuracy and record purposes and to minimise any omission or misrepresentation of data collected. Data collected were then transcribed (about two to three hours per interview audiotape), reviewed, coded and collated for content analysis purposes.

As suggested by Cavana, Delahaye and Sekaran (2001, p.170), themes, through the interview questions, were used to facilitate the analysis and interpretation of the interview data collected. The "content analysis" process, subscribed by Patton, 1990 (cited in Cavana, Delahaye & Sekaran, 2001, p.171-176) was used to identify, code and categorise the "primary patterns in the interview data" to test the three hypotheses of this research project.

Several review sessions of the transcribed data was necessary to ensure that all relevant data were captured in the analysis. The data analysis process took about three hours per audiotape and where necessary, further clarifications with the respondents were carried out to attain valid interpretations of their comments. Respondents were also informed that permission would be sought from them if there is a need to quote them in the research report. Assurances are also given to all respondents that no names will be identified in the final research paper or subsequent publications.

## Research Justification

## Theoretical significance

- The eventual research findings of this empirical study of XYZ may, in some ways, contribute and advance the field studies on the theory that goal setting have an impact on employee effectiveness and ultimately improve organisation effectiveness.
- b. The empirical study of XYZ has allowed the researcher to conduct a systematic investigation of the three variables and conceptual model to test the validity and reliability of the three hypothesis presented.
- c. Empirical investigation, in an organisational context, allows the researcher to systematically gather indepth information of a particular organisation to do hypothesis testing. This is deemed as a rare field study that can add weight to the field research findings on goal setting in organisational context. As cited in Steel and Scotter, (2003, p. 35), "field studies are a distinct minority in this literature."

## **Practical significance**

- The validity and reliability of conceptual model used for this research study can be extended for use in the subsidiaries of XYZ located within the Asian region thus allowing the researcher to test the three hypotheses more robustly.
- b. The research conclusions can and will be helpful for the Human Resource Department to consider relevant intervention strategies to enhance the effective use of the goal setting management tool with a view to improve organisation effectiveness through an effective workforce.
- c. This research study can be used as a follow up for future research on the subject. It can also be useful for business students who plan to embark on such a research project.

#### **Ethical Issues**

As pointed out by Cavana, Delahaye and Sekaran, (2001, p.165-166), a number of ethical issues were addressed while collecting data pertaining to "who sponsor the research, those who collect the data and those who offer it". XYZ's management, the sponsor, was informed that the research study is undertaken in the interest of the company and not for personal reasons.

The interviewer reassured the interviewees that all data furnished by them will be treated with sensitivity and strictly confidential and all interview responses will remain anonymous to protect their identity unless the interviewee has consented to have his or her identity revealed for purposes of the research interview.

All interviewees are allowed to participate in the research interview on a voluntary basis and that their consent to the interviews must be reciprocated with full co-operation in the research project and that they be obligated to furnish honest and truthful interview responses.

The survey instruments, that is, the interview questions, developed for this research project have been examined and approved by my project Supervisor.

#### Findings and Analyses

Overall, the findings from this empirical study in XYZ provided sufficient evidence to show the linkages between the three key variables. Much of the data and information gathered from the study participants echoed many of the supporting research findings by researchers and scholars in this field of study that are highlighted in the literature review section of this paper. The following paragraphs will describe in more details the findings and analysis of the survey data gathered.

#### **Interview Participants**

The demographics of all the participants are reflected in the following data tables:

**Table 1: Demographics % of Participating (n=11) Managers** 

	%		%
(1) Managerial Level		(5) Educational Background	
Department	54.5	GCE 'O' & 'A'	9.1
Section	45.5	Diploma	18.2
		Degree	63.6
		Master	9.1
(2) Functions		(6) Tenure (in years)	
Sales & Marketing	18.2	1 - 3	9.0
Customer Support	27.2	4 - 6	18.2
Application Support	18.2	7 - 9	27.3
Project Engineering	9.1	10 - 15	27.3
Logistics	9.1	Above 15	18.2
Finance & Administration	9.1		
Information Technology	9.1		
(3) Gender		(7) Direct Reports (No of Staff)	
Female	9.1	1 - 5	45.4
Male	90.9	6 - 10	36.4
		11 - 20	9.1
(4) Age (in years)		Above 20	9.1
25 - 35	9.1		
36 - 40	36.3		
41 - 45	27.3		
46 - 50	27.3		

**Note:** Pictorial representations of participants' demographics are attached (Appendix-A)

As displayed in Table 1 above, there are 54.5% of managers at the department level and 45.5% of managers in the section level. They represent seven functional operations within the research site. In terms of gender, only one was a female participant thus representing the dominant male participation in this research site. The largest age group is the 36~40 years old category with about 36.4% of the total participants while it can be observed that about 91% of the participants fall within the three age groups ranging between 36 to 50 years old. It is noted that most of the managers, about 63.6%, posses a degree in terms of educational background. Majority of the managers, about 54.6%, have a tenure of between 7~15 years. The number of direct reports (staff) varies, with the highest of about 45.5% of managers having a span of control of 1~5 staff. Almost 81.9% of the managers have direct staff reporting to them within the 1~10 staff range. The participants represented about 11% of the research site's total headcount of about one hundred employees or a ratio of about one manager to ten direct reports.

#### Goal setting - its importance and process

All the study participants shared and articulated the various goals of the organisation and their departments. It is noted that, in essence, they are focused on a few specific themes such as customer support, profitability and sales. The data would suggest that more than 80% of the interview participants are aware of the organisation goals but may not interpret or express them in the same way. There are about 20% who are not too clear of the organisation goals but made reasonable assumptions of the goals that focus on the few specific themes mentioned earlier. Likewise, the departmental goals appear to be varied but suggested that they are goals that are very specific and functional in nature and yet are aligned directly or indirectly with the company goals.

In this connection, it's interesting to note that findings by other researchers have found that even with different forms and frequencies of communications performed at the macro level, "goal communication may often be incomplete and inadequate throughout the organisation" (Donaldson, 1985, cited in Locke & Latham, 1990, p.329). To address this situation at the macro level, it has been argued by Locke and Latham (1990, p.330), that "the influence of goals at the macro level ...may be more indirect, occurring via strategy formulation and implementation. That is, in order for macro goals to influence performance, it may be necessary that the goals be translated into strategies and that these be suitable to the goal and the situation".

Examples of the general goals described by the managers (Managers, 2006, pers. comm., 4-19 September) include "Support our customers in using our products", "To be the best in providing test equipment solutions", and "Maintain profitability", while specific goals highlighted included "Deliver 95% of our spares within 24 hours", and "To achieve more than 90% customer satisfaction by fiscal year 2008".

All participants concurred that goal setting is very important because, in essence, they understand that goal setting provides a sense of alignment, direction and purpose for the organisation, department and also for the employees. Here is what some of the managers (Managers, 2006, pers. comm., 4-19 September) said:

"We need to set some goals otherwise we will never know what we achieve, or where we are or where we want to go".

"Goal setting provides direction and purpose. Essentially, an organisation has a common goal in mind, a purpose to exist, thus a goal. So if we take away goal setting, it becomes a disorganise organisation. It will be aimless".

"If we do not have goal setting, what other alternatives do we have in driving a company towards the future",

It was noted that all the participants set goals by aligning their department goals with the organisation goals. One functional manager (Managers, 2006, pers. comm., 4-19 September) succinctly describes the overall goal setting process as follows:

"Identify what company wants to achieve and what our department can do to help the company achieve its goals." We then set departmental targets or goals and cascade them to our staff to achieve the goals of the company."

# Employee Effectiveness - in relation to goal setting

All the research interviewees (Managers, 2006, pers. comm., 4-19 September) agreed that clear two-way communication of goals is vital. Comments from two of the participants are as follows:

"If we did not communicate our goals clearly to the people, then how can our people do exactly what we want them to achieve? Clear communication means simply telling them and let them understand what our goals are and in measurable terms about what and how you want to measure".

"Communication is not only written but needs elaboration as written communication may not be explicit. More important is that there must be mutual understanding between employees and managers of what is actually written down. That kind of trust and understanding is very important".

The interview data suggest that all the managers use the two-way communication channel to communicate their goals with their staff through formal and informal meetings on an ad-hoc and/or regular basis such as the formal bi-annual performance review meetings and through casual daily, weekly or monthly discussions. Goals communication is basically done on a one to one basis between the manager and his subordinates while group goals are usually communicated through departmental meetings.

The researcher also received an emphatic response from all the managers (Managers, 2006, pers. comm., 4-19 September) interviewed that 'specific and stretched goals' lead to better employee performances as they perceived that such goals are "more focused", "expand staff capabilities" and are "quantifiable and measurable". Many of the interviewed managers (Managers, 2006, pers. comm., 4-19 September) felt that 'general goals' are subject to different interpretations by the employees and may not end up with the desired and intended results. However, a few managers (Managers, 2006, pers. comm., 4-19 September) commented that general goals may "allow room for staff creativity" although such creativity, they concurred, "would depend on the staff motivation". The positive response on 'specific and stretched goals' would be consistent with the findings of Locke, 1968; Locke and Latham, 1990 (cited in Terpstra & Rozell, 1994, p.285) that "specific goals result in greater effort than do more general goals, difficult goals (when accepted) result in greater effort than do easier goals, and feedback results in higher effort than does the lack of feedback".

All participants unanimously agreed that there is a relationship between goal setting and employee effectiveness. Expressing the definition of employee effectiveness, one manager (Managers, 2006, pers. comm., 4-19 September) defines it as "doing the right things" and explained that "if you don't set goals, how will the employee knows whether he/she is doing the right things and working in the right direction. With goal setting, you can measure and get the results you want". Other comments from the study participants (Managers, 2006, pers. comm., 4-19 September) include "At least with goals, employees are more aware of what is expected of them"; "if there is no goal setting, there is no focus on the objectives" and as one manger (Managers, 2006, pers. comm., 4-19 September) subtly puts i

"Goal setting for employee is to maximise the employee's potential and capabilities and load the employee with a specific target to achieve. It does lead to employee effectiveness in performing his job".

A distinctive example from one of the interviewed manager (Managers, 2006, pers. comm., 4-19 September) to confirm the reliability and validity of the relationship between goal setting and employee effectiveness is as follows:

"Before you can come to a stage of supporting the customer effectively, you will probably have to build up your knowledge and skill. Thus, if you don't first set a goal to acquire that skills and knowledge, how will you be able to support the customer? Hence goal setting relates to employee effectiveness"

From the interview data, it is also noted that the interview participants used various ways to measure employee effectiveness. Some used software tools like a "service tracking system" to monitor the quality and quantity of services rendered to their customers. Others use either or both qualitative and quantitative approach to measure employee effectiveness like the "key performance indexes", observations, customer and staff feedback, and predetermined performance competencies model. One of the managers (Managers, 2006, pers. comm., 4-19 September) articulated as follows:

"Employee effectiveness should be measured under certain condition(s) and period(s) of time like how much you can produce with a certain input and effort and whether you can generate the desired output".

Another manager profoundly pointed out that for an employee to be effective there must be goal congruence. This view can be reinforced by the findings of Hart, 1994; Vancouver and Schmitt, 1991 (cited in Coote, Price & Ackfeldt, 2004, p.548) that "goal congruence exist when employees perceive that their goals and values are a good fit with, and they are committed to, an organisation's goal and values".

These findings provide underpinning for the hypothesis H1 that 'goal setting would have a positive impact on employee effectiveness.

## Organisation Effectiveness - in relation to goal setting

The interview data collected illustrated that all the managers interviewed categorically acknowledge that goal setting and clear communication of the goals does impact upon organisation effectiveness. In expressing their support of the aforesaid argument, two of the managers (Managers, 2006, pers. comm., 4-19 September) commented as follows:

"Goal setting and clear communication must be embraced or be synergized as there must be goal alignment of all departments to organisation goals" for organisation effectiveness. If departments pursue their own goals without integration with other departments' goals and without aligning with organisation goals, then organisation effectiveness will be adversely affected."

"Goal setting and clear communication would mean that employees will understand the goals set and know the direction to work towards to achieve organisation effectiveness".

To the question on "how you measure organisation effectiveness", the researcher noted that typically, achievement of positive financial results such as revenue, gross margin and profit & loss statements are used as a key reference to gauge organisation effectiveness. Other measures of organisation effectiveness recorded from the interviewees (Managers, 2006, pers. comm., 4-19 September) include "using minimum resources to achieve maximum results", "using the least resources to satisfy the customers", and "smooth workflow".

In regards to whether specific or general goals affect organisation effectiveness, the majority of the interview respondents (Managers, 2006, pers. comm., 4-19 September) felt that general goals will be more appropriate at the organisation level as these are deemed as broad or macro goals providing the framework for such goals to be cascaded downwards into specific goals. This perception is best reflected by one of the manager (Managers, 2006, pers. comm., 4-19 September) who had this to say:

"General goals are very broad to give a bigger picture while specific goals are tailored..."

The above arguments, quoted from the interview participants, generally support the hypothesis H2, which is, 'goal setting would be positively related to organisation effectiveness'.

To test the third hypothesis (H3), "Employee effectiveness would lead to improved organisation effectiveness", the researcher asked the interview participants this question: "Does employee effectiveness impact upon organisation effectiveness?" It was a resounding "yes" from all the managers interviewed.

Several of these managers articulated their support (Managers, 2006, pers. comm., 4-19 September) of the hypothesis H3 with the following comments:

"If employee is effective, it will be reflected in the organisation in terms of productivity level, quality, level of satisfaction customers and market share"

"If employees are able to achieve their goals, if goals are towards and aligned with organisation goals, it will contribute and impact organisation effectiveness"

Interestingly, the comments quoted above appear to claim that if the employee is effective, it will lead to organisation effectiveness. This claim reflects the comments by Armstrong (1994, pp. 180) that "ultimately, an organisation's effectiveness depends on the quality, motivation and commitment of its human resources. According to Curtis (1994, pp.136), "organisational strength begins with a cohesive base of individual goals that are in line with organisational vision"

The interview findings would provide support to the third hypothesis (H3), that is, "employee effectiveness would lead to improved organisation effectiveness"

#### Conceptual Model -its relevance

All the study participants acknowledged that goal setting have a role to play in the relationship depicted in the conceptual model and is evident in their departments.

A notable remark from one of the interview participants (Managers, 2006, pers. comm., 4-19 September) is that "Effectiveness has to do with quality thoughts and commitment. Thus effectiveness would depend on these two variables. Realistic goal and employee capability are important too besides the system and structure of the organisation". His remarks appears to echo the comments of Senge (1990, p. xi), who stated that W. Edwards Deming "often referred to statistics as 'two percent of the work.' The other 98 percent, Deming believed, involved basic changes in the ways people are recognized and rewarded and fundamental shifts in management - from setting goals and driving people toward achievement to focusing on the continual improvement of 'the systems' that govern how organisation works." Therein lays the recognition of systemic improvements, besides goal setting, in relation to organisation effectiveness.

When asked if they, the study participants, feel that this relationship is evident in their department, all of the interviewees replied 'yes'. In providing evidence of such a positive relationship in their department, one of the study participants (Managers, 2006, pers. comm., 4-19 September) quoted an example as follows:

"A goal was set for a new department staff to learn the job functions within six months. To stretch the goal, the new employee was challenged to achieve the target within three months which was eventually accomplished. In monitoring the new staff performances over a period of eight months, it was noted that very minimal and insignificant mistakes were detected. This clearly showed the staff effectiveness through goal setting which ultimately improve the new employee's performances as well as the department and organisation effectiveness".

#### Discussion

In general, this empirical study provided substantial evidences that supported the underlying thesis of this business research that goal setting has an impact of employee effectiveness and will lead to improved organisational effectiveness.

This empirical study reflects the understanding and responsibility of the managers in carrying out their managerial role in goal setting. This argument can be reinforced by the research findings that "Goal setting is another administrative or management skill that is typically seen in effective leaders (Gardner 1986-88; Kotter 1982; Locke & Latham 1984, 1990 cited in Locke et al. 1991, p. 45).

The differences between general and specific goals pointed out by the research participants are "consistent with goal setting literature in psychology" (Locke & Latham, 1990; Austin & Vancouver, 1996 cited in Bradley et al. 1999, p. 276). The goal setting process of cascading down organisation goals to department goals and then to individual goals, according to Austin & Vancouver, 1996 (cited in Bradley et al. 1999, p. 276), is a concept of goal translation which is similar to the concept of a hierarchy of goals that is generally well acknowledged. In view of this cascading of goals, more communication and feedback sessions of the goals setting process was recognised by the study participants to ensure that their employees are effective in achieving their goals.

In terms of measuring organisation effectiveness, a general consensus is that if an employee is effective, it will logically lead to organisation effectiveness as an "employee is part of the organisation" as described by a study participant (Managers, 2006, pers. comm., 4-19 September). Conversely and by logical deduction, it can be deemed that ineffective employees will adversely affect organisation effectiveness. According to Ruiz, (2006, p. 51), "most companies have no trouble citing good performance but getting them to actually say that people are performing badly is another matter....this creates a disconnect between what managers write in performance reviews and the reality of how well, or poorly, employees do at helping the company achieve its goals." To address this issue, perhaps, the statement from Maureen Hilts, Charles Schwab & Co (cited in Ruiz, 2006, p. 51) may be valid for consideration, that is, "What we need to work on is helping employees draw a line of sight between their performance and corporate objectives".

## Limitations and Future Research

Although the research findings from XYZ provided support for the conceptual model, this particular research, however, is conducted only with managerial staff on a cross-sectional basis through a qualitative research at one point in time. The limitation of such a cross-sectional approach is that it does not allow the researcher to study employee's behaviour before and after a goal setting process over a period of time as in a longitudinal study which may involve the engagement of both the managers and their staff on an individual and/or focus group basis. Such a longitudinal study, according to Cavana, Delahaye and Sekaran (2001, p. 122), may take more time, effort and additional costs, but if planned properly, "could, among other things, help to identify cause and effect relationships".

This business research identified a number of additional moderating factors or variables, as perceived by the study participants, that will impact employee effectiveness and organisation effectiveness such as "empowerment, trust and understanding, opinion-based rating, rewards, staff creativity and motivation, employee capabilities, goal congruence, commitment, synergy in goal alignment, systems and structures, and last but not least, long term goal (Managers, 2006, pers. comm., 4-19 September)". These perceived additional moderating variables, may or may not have been researched in the past, would form the basis for an invitation to current and future scholars and researchers to consider possible future empirical business researches on the research question in this study. Preferably, similar future researches are also conducted in an organisational context, based on the conceptual model developed in this paper, across the various industries both locally and outside Singapore. This invitation for further research is supported by findings that "although goal setting is a common organisational practice, studies concerning goal setting have almost exclusively been carried out in experimental setting (Yearta et al., 1995, p.237)".

## **Conclusion**

This paper aims to answer a question: Does goal settings have an impact on employee effectiveness and ultimately improve organisation effectiveness? An empirical study was conducted in a hi-tech company in Singapore. A conceptual model was developed with three identified variables and the formulation of three hypotheses. The literature review that was carried out reinforced valid arguments in support of the three hypotheses formulated. Using the qualitative research methodology, the researcher conducted personal interviews with eleven targeted study participants from the research site, that is, XYZ (Singapore) Pte Ltd (XYZ) to test the validity and reliability of the three hypotheses. Justification for the study in terms of its theoretical and empirical significance were presented with due considerations given to address the ethical issues for privacy and confidentiality of data and information gathered pertaining to XYZ, the researcher and the interviewees.

The findings of the empirical research suggested that the three hypotheses tested are valid and reliable and are evident in their organisation. There was unanimous concurrence amongst the research interview participants that goal setting has a role to play in the relationship depicted in the conceptual model and that it has an impact on employee effectiveness and ultimately improves organisation effectiveness. A discussion of the research findings and analysis was done with indications of the research limitations and invitation for future research on the conceptual model of this paper.

In their latest book "New Developments in Goal Setting and Task Performance", Locke, EA & Latham, GP (2013, p. 625 and p.629) highlighted that "the original version of goal setting theory was developed over a 25-year period" and that "it is an 'open' theory in that in 1990 it was never considered to be the 'final say'.".

They also stressed the importance of and relevance of goal setting theory for human resource management, "particularly true for conducting selection interviews, performance management, training, motivating employees and leading others."

In conclusion, it is sufficed to say"the beneficial effect of goal setting on task performance is one of the most robust and replicable findings in the psychological literature", (Locke, Shaw, Saari, and Latham, 1981, cited in Carson & Carson, 1993, p.79).

# Acknowledgements

The conduct of research undertaken for this study was given due support and approval by the CEO of Hi-Tech semiconductor test systems and Equipment Company registered with the Singapore Registrar of Companies as attested to by official correspondences with project researchers.

#### **Notes**

- 1. In order to honour the confidence of the CEO and the company's officials who were interviewed in the course of this research, their names, and complete job designations are omitted here. Nonetheless, where data source is reported from an interview, the interviewee is identified by their position.
- 2. In order to preserve the anonymity of the respondents, their actual names are not provided.

# References

- Armstrong, M, 1994, Improving organisational effectiveness, Kogan Page Limited, London
- Arvey, RD, Dewhirst, HD & Brown, EM 1978, "A longitudinal study of the impact of changes in goal setting on employee satisfaction", Personnel Psychology, Vol. 31, No. 3, pp. 595-608.
- Atkinson, W 2005, "Setting goals and measuring performance", Collections & Credit Risk, Vol. 10, No. 8, pp. 32-
- Bradley, EH, Bogardus, ST Jr, Tinetti, ME & Inouye, SK 1999, "Goal-setting in clinical medicine," Social Science & Medicine, Vol. 49, No. 2, pp. 267-278.
- Carson, PP & Carson KD 1993, "Deming versus traditional management theories on goal setting: Can both be right?", Business Horizons, Vol. 36, No.5, pp. 79-84.
- Cavana, RY, Delahaye, BL &Sekaran, U 2001, Applied business research: Qualitative and quantitative method, John Wiley & Sons, Australia.
- Compton, R 2005, "Performance management: Panacea or corporate outcast?" Research and Practice in Human Resource management, Vol. 13, No.1, pp. 46-54.
- Coote, LV, Price, E & Ackfeldt, A-L 2004, "An investigation into the antecedents of goal congruence in retailservice settings", The Journal of Services Marketing, Vol. 18, No.6/7, pp. 547-557.
- Curtis, K2001, From management goal setting to organisational results: Transforming strategies into action, Ouorum Books, USA
- Gilda, DS 1991, "Getting your staff to do what you want", Supervisory Management, Vol. 36, No.1, pp. 4-5.
- Green Jr, KW, Medlin, B & Whitten, D 2004, "Developing optimism to improve performance: An approach for the manufacturing sector", *Industrial Management + Data Systems*, Vol. 104, No.1/2, pp. 106-113.
- Greenwood, RG 1981, "Management by objectives: As developed by Peter Drucker, assisted by JaroldSmiddy", Academy of Management. The Academy of Management Review (pre-1986), Vol. 6, No.2, pp. 225-230.
- Hale, R & Whitlam, P 1998, Target setting and goal achievement: A practical guide for managers, 2<sup>nd</sup>edn, Kogan Page, London, UK.
- Hitt, MA 1988, "The measuring of organisational effectiveness: Multiple domains and constituencies", Management International Review, Vol. 28, No.2, pp. 28-40.
- Humphreys, J 2003, "The dysfunctional evolution of goal setting", MIT Sloan Management Review, Vol. 44, No.4, pp. 96.
- Joy, R 1995, "Empowering workers by setting goals", Nation's Business, Vol. 83, No.1, pp. 6.
- Kondrasuk, JN 1981, "Studies in MBO effectiveness", Academy of Management. The Academy of Management Review (pre-1986), Vol. 6, No.3, pp. 419-430.
- Kraft, KL, Jauch, LR, & Boatwright 1996, "Assessing organisational effectiveness in the service sector", Journal of Professional Services Marketing, Vol. 14, No.1, pp. 101-116.

- Latham, GP 2004, "The motivational benefits of goal-setting", *The Academy of Management Executive*, Vol. 18, No.4, pp. 126.
- Latham, GP &Pinder, CC 2005, "Work motivation theory and research at the dawn of the twenty-first century", *Annual Review of Psychology*, Vol. 56, pp. 485-516.
- Landgon, D 1999, "Objectives? Get over them", Training & Development, Vol. 53, No.2, pp. 54-58.
- Locke, EA, Kirkpatrick, S, Wheeler, JK, Schneider, J, Niles, K, Goldstein, H, Welsh, K, & Chah, D-O 1991, the essence of leadership: The four keys to leading successfully, Lexington Books, USA.
- Locke, EA & Latham, GP 2013, "New developments in goal setting and task performance", Wals worth Publishing Company, USA.
- Locke, EA & Latham, GP 1990, A theory of goal setting & task performance, Prentice Hall, Inc, USA.
- Luthans, F 1995, Organisational behaviour, 7thedn, McGraw-Hill, Inc, Singapore.
- Margaret, PC 1993, "Why don't use the research", Management Decision, Vol. 31, No. 3, pp. 48-54.
- Michie, S & West, MA 2004, "Managing people and performance: An evidence based framework applied to health service organisations", *International Journal of Management Reviews*, Vol. 5/6, No. 2, pp. 91-111.
- Mills, C 2002, *Performance management under the microscope*, Singapore Human Resources Institute, Singapore.
- Roberts, GE 2003, "Employee performance appraisal system participation: A technique that works", *Public Personnel Management*, Vol. 32, No. 1, pp. 89-98.
- Rodgers, R. & Hunter, JE 1991, "Impact of management by objectives on organisational productivity", *Journal of Applied Psychology*, Vol. 76, No. 2, pp. 322-336.
- Ruiz, G 2006, "Lessons from the front lines, "Workforce Management, Vol. 85, No.12, pp. 50-52. Retrieved October 24, 2006, from ABI/INFORM Global database.
- Sauers, DA & Bass, K1990 "Sustaining the positive effects of goal setting: The positive influence of peer competition", *Akron Business and Economic Review*, Vol. 21, No. 4, pp. 30-30.
- Senge, PM 1990, The fifth discipline: The art and practice of the learning organisation, Currency Doubleday, New York.
- Simpson, JA 1993, "Management by objective for appraisal firms", *The Appraisal Journal*, Vol. 61, No. 3, pp. 380-385
- Steel, RP and Scotter JRV 2003, "The organisational performance cycle: Longitudinal assessment of key factors", *Journal of Business and Psychology*, Vol. 18, No. 1, pp.31-50.
- Steers, RM 1976, "When is an organisation effective? A process approach to understanding effectiveness", *Organisational Dynamics*, Vol. 5, No. 2, pp.50-63.
- Terpstra, DE & Rozell, EJ 1994, "The relationship of goal setting to organisational productivity", *Group & Organisation Management*, Vol. 19, No. 3, pp. 285-294.
- William, S 1990, "Build organisational success around individual success", *Modern Office technology*, Vol. 35, No. 11, pp. 10-12.
- Xavier, S 2002, "Clear communications and feedback can improve manager and employee effectiveness", Employment Relations Today, Vol. 29, No. 2, pp. 33-41.
- Yearta, Shawn K, Maitlis, Sally, Briner & Rob, B 1995, "An exploratory study of goal setting in theory and practice: A motivational technique that works", *Journal of Occupational and Organisational Psychology*, Vol. 68, No. 3, pp. 237-252.

Appendix - A (Pictorial representations of participants' demographics - Graphs No: 1 to 7)

