



## Business Success of Recycling Industries in Thailand

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**Key words:** Business success factors, recycling industry, garbage, transformational leadership, frequency

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**Abstract:** The objectives of this research were: to study the level of business success of the recycling industry and to study transformational leadership, entrepreneur competency and achievement motivation influencing business success. This research was quantitative, there were 3,102 entrepreneurs or executive officers in the recycling industry. Due to the fact of exact population in the study, the sample size was determined by applying Krejcie and Morgan with 346 sampling. The data was collected from 400 sampling to reduce the discrepancy. The research instrument comprised of questionnaire. Data were analyzed by using descriptive statistics as frequency, percentage, standard deviation and multiple regression. The result of the research revealed that: the overall level of business success of the recycling industry was the highest and transformational leadership, entrepreneur competency and achievement motivation that were in a prediction of business success with statistical significance at the level of 0.05.

## INTRODUCTION

The amount of garbage in Thailand tremendously increase year by year because of economic and social activities expansion including a number of populations in the country which were an important factor that cause consumption needs and it was also the reason of large amount of garbage<sup>[1]</sup>. Regarding to the report of community solid waste situation in Thailand in 2559, found that the amount of garbage occurred in overall country 27.06 million ton per year. It was as equal as 140 buildings of Bai Yok Tower 2, the calculation was 74,130 ton per day, the average of garbage was 1.14 kg per person per day. It did not include residual waste which increased every year and it was not <10 million ton per year. In early of 2558, the amount of garbage properly disposed from these places was 26.34% of the recent waste, residual waste and other waste which were 73.26%

that did not properly dispose. It created open dump situation, outdoor burning, burning trash without air pollution scrubber system and control dump or left it. From Fig. 1 showed, even though Thailand tried to recycle garbage and dispose it properly but tendency of garbage amount in each year increased beside this half of these garbage amount did not properly dispose.

The majority of recycling business was wholesale scraps without recycling process, so, the capital and technology were not high and investors had an opportunity to make income from this business. Tendency of having new business of recycling was increase, especially in 2559 and continually expansion until 2561 that related with city expansion and continually increasing population including recycling business income in 2559 increased. From Fig. 1 showed a number of recycling businesses which was running and divided by area overall were 3,102 businesses. It found that this kind of business

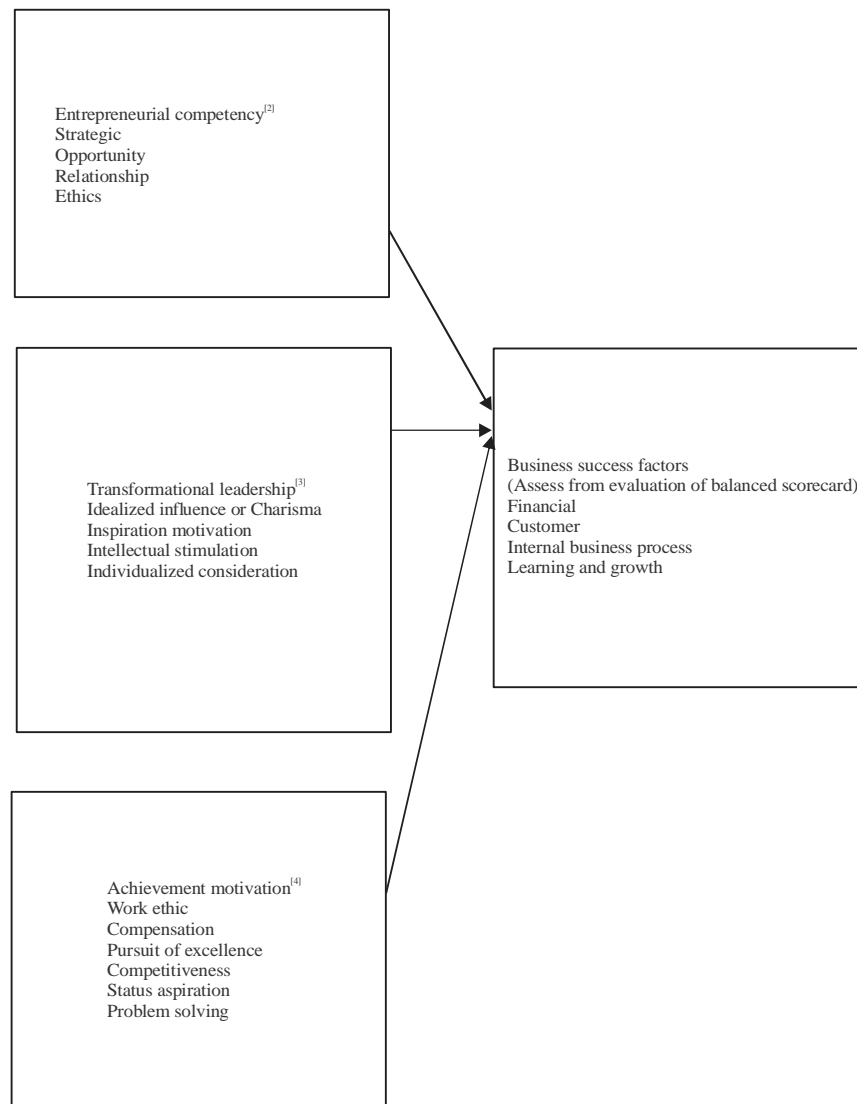


Fig. 1: Conceptual framework

mostly located in central area 1,246 businesses that was 40.17%, the second, Eastern area 745 businesses that was 24.02% and Bangkok 620 businesses that was 19.99%. According to the amount of garbage in the country which increased belong to community expansion and population, recycling business was not spend high capital because material in use was garbage that was not high price to buy and sell and also the process of garbage sorting, garbage crushing or digestion and also garbage transforming were not necessary to use high technology, so, the investors found an opportunity to make income and more joining in this kind of business. When there were more entrepreneurs in recycle then ability in garbage disposal was increase that would make better environment including good effect to the overall ecology and Thailand.

Business success factors consisted from many different factors and one important factor was leader in the organization who managed work and cooperation between workers in every level in the organization to achieve the goal, measuring success in business process would apply balance scorecard which was one of the evaluation that would help seeing the overall of goal achievement organization process, setting objectives and make success for organization, balanced scorecard, the evaluation of organization consisted 4 points of view which were financial point of view, customer point of view, organization internal process and leaning and growth, instead of only financial support success in the present and future.

Running business in the present time would always face with fast environment transforming, business

adaptation in environment changing, leadership skills that suit with transformational leadership would stimulate interesting between colleagues and followers to see many points of view in work, mission awareness and vision<sup>[3]</sup>.

There was high competition running business in the present being entrepreneur needed to have vision to run business because it would be an important part to push business for both inside and outside country. Entrepreneur competency needed to have determination to success, self-confidence, dare to deal with problems and urgent obstacles having clearly conceptual in business running, strategic that suit with transforming and business success process, etc.<sup>[5]</sup>.

The top entrepreneur in the world need success or called "Achievement Motivation" in high level. Achievement motivation was motivation that person needed to do one thing with standard excellence, need self-esteem, self-competition, self-development, need success especially in difficulty and challenge work<sup>[6]</sup>.

Regarding to the reference, the researcher interested in study Business success factor influencing recycling business in Thailand. It made understanding in the necessary of recycling business system development to get better environment in Thailand.

#### **Research's objectives:**

- To study the level of business success of the recycling industry
- To study transformational leadership, entrepreneur competency and achievement motivation influencing business success

#### **Research's benefit:**

- Recycling business can apply data from the study to adapt in working plan for more comfortable and efficiency
- The data from this study can be model for people who interested in or related officers of recycling entrepreneur in competency development planning in the future
- The data from this study can be benefit for other organizations which related to recycling business

**Literature review:** The researcher reviewed the literature as follow:

**Entrepreneurial competency conceptual:** Competency was an important instrument of organization to apply for building competitive advantage specially to increase competency of officers which was the basic ability in building advantage and lead to organization development having other abilities including to apply in use, Barbara<sup>[2]</sup>. Competency of entrepreneur can be concluded as 4 factors:

- Strategic
- Opportunity
- Relationship
- Ethics

**Transformational leadership conceptual:** This concept was the procedure that leader influenced to officers and follower by changing effort of colleagues and followers having high effort than expected, develop ability of colleagues and followers to reach high level and more capability to build awareness in work and team's vision and organization's vision, motivate colleagues and followers to look over interesting leading to organization's benefit or society. Avolio and Bass<sup>[7]</sup> this process was working through 4I's (Four I's); Idealized Influence or Charisma (II or CL), Inspiration Motivation (IM), Intellectual Stimulation (IS) and Individualized Consideration (IC).

**Achievement motivation conceptual:** Achievement motivation theory of Cassidy and Lynn<sup>[4]</sup> was applied concept and theory of achievement motivation from many psychologist to summarize new idea and adapted those theory to create new idea for creating questionnaires as the instrument to assess achievement motivation and can be conclude as 6 factors:

- Work ethic
- Compensation
- Pursuit of excellence
- Competitiveness
- Status aspiration
- Problem solving

**Business success factors conceptual:** Success factors become an instrument or distinguish method and analyzed important factors to run the best process to achieve beyond the goal in the industry group, Kaplan and Norton<sup>[8]</sup> agreed that business need to build value in the future through investment in customer, partnership, officers, business process, technology and innovation. In conclusion, to measure success from 4 aspects:

- Financial perspective
- Customer perspective
- Internal business process
- Learning and growth perspective

**Conceptual framework:** The research of business success factors of recycling industries in Thailand focus on studied transformational leadership, entrepreneurial competency and achievement motivation influencing business success. The researcher set up the conceptual framework as Fig. 1.

## MATERIALS AND METHODS

Business success factor of recycling industries in Thailand research, the sample group was 3,102 recycling business industries entrepreneurs. Due to the fact of population in this research, Krejcie and Morgan<sup>[9]</sup> table was applied at the confidence level 95%, got the sample group was 346 sample. The researcher would collect 400 sample to decrease error. Proportional sampling, applying questionnaires were the instrument to collect data, the data was analyzed by descriptive statistic with personal information of the respondents, applying general statistic, percentage, mean, standard deviation with opinion level of respondents and inferential statistic that was multiple linear regression.

## RESULTS AND DISCUSSION

Personal information of recycling industry in Thailand, the majority of respondents were male; 84.75%, level of education was Bachelor's degree; 52.25%, the length of business running over than 15 years was 41.50%, working experience in the company 10-15 years was 40.25%, location of the business in the central was 30.50%, characteristic of recycling business; purchasing raw material factory group was 50.25%, characteristic of business was relative; 43.25% and the number of staff in the organization 21-50 people was 44.75%.

Opinion of entrepreneurial competency in the overall was in high level and the mean score was 4.09, for each aspect, the most important, ethic was high level, the mean score was 4.19, the second, opportunity was high level, the mean score was 4.09 and the last, relationship was high level, the mean score was 4.04.

Opinion of transformational leadership in overall was high level, the mean score was 4.10, for each aspect, the most important, idealized influence or charisma and inspiration motivation were high level, the mean score was 4.14, the second, intellectual stimulation was high level, the mean score was 4.09 and the last, individualized consideration was high level, the mean score was 4.06.

Opinion of achievement motivation in the overall was high level, the mean score was 4.12, for each aspect, the most important, need of work ethic was high level, the mean score was 4.17, the second, pursuit of excellence was high level, the mean score was 4.14 and the last, status aspiration was high level, the mean score was 4.08.

The opinion of business success factors in overall was high level, the mean score was 4.30, for each aspect, the most important, financial was high level, mean score was 4.53, the second, internal business process was high level, the mean score was 4.34 and the last, learning and growth was high level, the mean score was 4.10.

Research hypothesis testing, transformational leadership, entrepreneurial competency and achievement motivation influencing business success. Before analyzed the relationship between transformation leadership, entrepreneurial competency and achievement motivation influencing business success need to recheck with Regression analysis primary agreement's test that every independent variable was independent.

According to Table 1 found that VIF was <4, so, it followed the regression analysis primary agreement's test that every independent variable was independent. Therefore, the researcher adopted multiple regression analysis to study the transformational leadership, entrepreneurial competency and achievement motivation influenced business success the analysis showed as Table 2.

According to Table 2 found that there were 3 independent variables; transformational leadership, entrepreneurial competency and achievement motivation. They can forecast business success 83.7% and the standard error of estimate working result was 0.10500 and correlation coefficient (R) was 0.915, it showed transformational leadership, entrepreneurial competency and achievement motivation had high influence to business success.

According to Table 3, showed transformational leadership (X1), entrepreneurial competency (X2) and achievement motivation (X3) can forecast business success with statistical significance at 0.05 and to prioritize the important of forecasting from high to low was entrepreneurial competency ( $\beta = 0.547$ ), transformational leadership ( $\beta = 0.016$ ) and achievement motivation ( $\beta = 0.011$ ), the forecasting equation:

$$Y = 0.016(X1) + 0.547(X2) + 0.011(X3)$$

According to the study of Business success factors of recycling industries in Thailand, researcher discussed the result belong to the objectives as follow:

Table 1: Tolerance statistic and Variance Inflation Factor (VIF)

Models	Collinearity statistics	
	Tolerance	VIF
<b>1. (Constant)</b>		
Transformational leadership	0.704	1.419
Entrepreneurial competency	0.789	1.267
Achievement motivation	0.684	1.463

Table 2: Transformational leadership, entrepreneurial competency and achievement motivation influence business success

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE of the estimate
1	0.915a	0.837	0.835	0.1.500

a. Predictors: (Constant), Transformational leadership, entrepreneurial competency and achievement motivation; b. Dependent variable: business success

Table 3: The ability in business success forecast from transformational leadership, entrepreneurial competency and achievement motivation

Models	Unstandardized coefficients		Standardized coefficients		
	$\beta$	SE	Beta	t-values	p-values
1. (Constant)	2.040	0.069	-	29.446	0.000
Transformational leadership	0.016	0.014	0.026	1.094	0.040
Entrepreneurial competency	0.547	0.014	0.910	39.825	0.000
Achievement motivation	0.011	0.018	0.014	2.408	0.018

To study the level of business success of the recycling industry, the result found that level of opinion on business success in overall was the highest which related to Wen<sup>[10]</sup> who studied Critical Success Factors For Tutorial Schools Business in Bangkok and the study showed that success of tutorial school business in Bangkok was the highest level but it did not relate to Krobbuaban and Inwan<sup>[11]</sup> who studied entrepreneurial competency and entrepreneurial orientation model, in overall success of organic agriculture business focus on organic agriculture business process was high level, success by applying balanced scorecard conceptual in organization was high level.

To study transformational leadership, entrepreneur competency and achievement motivation influencing business success, the result found that transformational leadership, entrepreneur competency and achievement motivation had forecasting power and can forecast business success with statistical significance level 0.05 which related to Mongkhon and Thampaiboon<sup>[12]</sup> said that leadership model that suited with present situation was "leadership who made change or transformational leadership" which found that this transformational leadership characteristic and behavior influence people behavior in the organization and if the organization needed to get any change, transformational leadership affected a lot to success and lead the organization to better situation and related with Krobbuaban and Inwan<sup>[11]</sup> who studied the effect of entrepreneurial competency and entrepreneurial orientation model on the success of organic agriculture business, the study result found that entrepreneur competency influenced success of organic agriculture entrepreneur consisted as management competency, strategic competency, idealized competency and determining competency.

### SUGGESTIONS

Entrepreneurial competency should focus on building ethics to customer, honesty and respect the rights, taking care of customer with equity and should practice belong to officer's ethic by fairness in both administration and compensation.

Leaders should support officers in problem solving of work being good role model for officers, exertion in work for organization's success and setting goal with challenge officer's ability. Working in organization with justice, equity and fairness, respect the rights and individualized

of officers, support officers in learning and working with opportunity to develop knowledge, skills, new ability to apply in work for better work.

**Suggestion for the future research:** Regarding to this research focused, it pointed out to all group of recycling business, so, the study should point out to specific group of business success factors such as recyclable waste collecting, recycling factory group because of each group had different objectives, goal and context in each organization.

### CONCLUSION

From this study, it showed business success factor of recycling industry in Covid-19 epidemic, therefor should be studied success factor after the Covid-19 epidemic because of the business situation had a lot of change.

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