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## **Model for developing success of the construction business entrepreneurs in Bangkok and its metropolitan region**

**Chainarong Na Lamphun**

Suan Sunadha Rajabhat University, Thailand

Corresponding author email: [s61484945021@ssru.ac.th](mailto:s61484945021@ssru.ac.th)

**Niyom Suwandej**

Suan Sunadha Rajabhat University, Thailand

Email: [niyom.su@ssru.ac.th](mailto:niyom.su@ssru.ac.th)

**Chompoo Saisama**

Suan Sunadha Rajabhat University, Thailand

Email: [chompoo.sa@ssru.ac.th](mailto:chompoo.sa@ssru.ac.th)

**Patsiri Suwannapirom**

Suan Sunadha Rajabhat University, Thailand

Email: [supissarafon@gmail.com](mailto:supissarafon@gmail.com)

**Abstract**---The construction sector is regarded as an economic sector that plays an important role in driving the country's economy, especially in infrastructure development and urban development. Similarly, construction section has vital important in Bangkok, Thailand. However, the promotion of entrepreneur's success in construction business is one of the challenges. Several businesses could not get success in the competitive market. In this way, the current study is an attempt to investigate the role of spiritual leadership, contractor's attitudes towards risks, management innovation and organizational culture on business entrepreneurs' success in construction industry. A mixed method approach is used in this study in which the data collection is made through questionnaire and in-depth interviews. Structural Equation Modeling (SEM) is employed to analyze the data. It is found that; spiritual leadership, contractor's attitudes towards risks, management innovation and organizational culture has major influence on business entrepreneurs' success in construction industry of Bangkok, Thailand.

**Keywords**---spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture, construction business entrepreneurs.

## **Introduction**

In order for the SMEs entrepreneurs in the construction sector to survive, it depends on factors that lead the organizations to succeed and survive which consist of both internal and external environmental factors. Therefore, the identification of different factors which has influence on the construction business success is most significant (Sajjachayaphan, 2021; Wuni & Shen, 2020). However, the identification of factors by the previous studies is lacking in the literature. Although a large number of studies are available on construction industry (Alfadil, Kassem, Ali, & Alaghbari, 2022; Jogunola, 2013), however, the factors affecting on the construction industry business success is not identified. Most importantly the entrepreneurs working in this industry are less addressed by the literature and the success rate of entrepreneurs in construction business is not considered by different previous studies. Although few studies discussed the construction industry entrepreneur's performance (Jogunola, 2013), however, still it is lacking and significant literature gap exist in exist in the literature. In this way, the current study is an attempt to fill this literature gap by identifying different important factors having influence on the entrepreneur's success in construction business industry of Bangkok, Thailand.

The construction business industry is most influential industry in Thailand due to several reasons (Chaveesuk, Khalid, & Chaiyasoonthorn, 2020; Kerdngern & Thanitbenjasith, 2017). This industry is important because it has handsome contribution to the economic development of Thailand. The contribution of this industry in Thailand is highlighted in Figure 1. This industry is growing significantly in Thailand and generating several opportunities for the people related to the income generation and job opportunities. The construction industry has proved to be a major contributor to the economy in Thailand. It made up around 425 billion Thai baht in the country's GDP in the past year. Construction works in Thailand are divided into two categories - the public sector and the private sector. Therefore, this industry contributing with the help of employment opportunities as well as to promote the economic growth of the country. Similar with the overall industry of Thailand the construction industry particularly in Bangkok also has major importance for Thailand. In the overall construction industry of Thailand, the Bangkok industry is leading in Thailand because it has major contribution to this industry.



Figure 1. Gross Domestic Product (GDP) from Thai Construction Industry  
Source: Mordor Intelligence

Bangkok is the hub of construction industry because there are lot of business opportunities related to the construction business. With the increase in business industry of Thailand (Soparat, Wangapisit, & Trangkanont, 2021) the construction industry is also growing significantly. The national and international investment is increasing in Bangkok which is also leading to generate several business opportunities related to the construction industry. Therefore, it is important to highlight the construction industry of Thailand, particularly related to the Bangkok. However, the entrepreneurs working in Bangkok construction industry require to increase the rate of success. As the failure rate among the construction industry entrepreneurs is also existing which is needed to address by identifying different factors affecting on business success. In this way the objectives of the study are as follows;

1. To study the levels of spiritual leadership, contractor's attitudes towards risks, use of management innovation, corporate culture, and construction business entrepreneurs' success.
2. To examine the influences of spiritual leadership, contractor's attitudes towards risks, use of management innovation, and organizational culture on enhancing the construction business entrepreneur's success.
3. To develop a model for developing the success of the construction business entrepreneurs in Bangkok and its metropolitan region.

The objectives of the current study have major importance to contribute to the literature. Because the current study has unique objectives which are not achieved in other studies. These objectives are developed based on the literature gap; therefore, it has the ability to extend the body of knowledge. Similarly, the achievement of these objectives also leads to the several benefits related to the construction industry of Bangkok of Thailand. As results of these objectives are helpful for the management of construction industries business success rate and management can make strategies accordingly.

## **Literature Review**

### **Entrepreneurs Business Success**

The current study considered the business success in the construction industry of Bangkok, Thailand. The business success addressed by several previous studies (Altaf, Hameed, Nadeem, & Shahzad, 2019) but it is not addressed in construction industry of Bangkok. Different studies measured business success through different ways, it could be measured with the help of financial aspects and with the help of non-financial aspects. The financial aspects include the profitability of the business, return on assets as well as return on equity. This study measured business success with the help of non-financial measures. The business success rate in construction industry entrepreneurs is low in Bangkok. Due to the low-level business success, the failure rate is increasing among the businesses. Therefore, to address this problem, the current study considered entrepreneurs business success in construction industry of Bangkok.

### **Spiritual Leadership**

Spiritual leadership includes three principal elements which include; vision, hope/faith as well as altruistic love, as the leader's values, attitudes, and behaviors, respectively. Leadership playing a critical role in business success among the organizations (Araujo, Giri, & Soares, 2020). Generally, leadership belongs to the top management as well as the managerial employees working among the organizations. The leadership style matters a lot for the employees working in any organization. Effective leadership style of the management can influence the performance of the employees (Priarso, Diatmono, & Mariam, 2018) ultimately shows positive role to influence the business performance. However, inappropriate leadership style may lead to the decrease in the employee performance which causes to decrease in the business success. Therefore, in entrepreneurs' business success, the current study considered leadership as an important element. The business success is majorly dependent on the leadership style of the management.

### **Attitude towards Risk**

In the construction industry, the attitude towards the risk of the contractor is ignored by the previous studies. Attitude towards the risk denotes to the behavior of an individual towards various construction projects. The individuals may have two types of behavior including the risk takers and risk averse (Galli, Tedeschi, & Martini, 2018). Both these behaviors have effect on the selection of construction project and it has significant effect on the outcomes of the project. Most of the peoples do not want to take risk in different projects, on the other hand, a few people like to take risk. Both these decisions may have influence on the business performance. However, the attitude towards risk is influenced by the different factors and leadership style. Among the organizations, it is one of the factors which has major influence on risk taking behavior or risk averse behavior. As reported in literature that leadership and risk management have relationship with

each other. Therefore, this study proposed the effect of spiritual leadership on attitude towards risk.

*H1: Spirituel leadership has relationship with attitude towards risk.*

### **Management Innovation**

Innovation is a process which can be implemented among the organizations and it has several benefits such as to reduce the overall cost of the product along with the decrease in overall time to manufacture the product. Therefore, innovation is a tool to promote businesses in the competitive environment. Management of innovation is a challenge for the companies (Endres, Huesig, & Pesch, 2022; Meng & Zhang, 2022). All the innovative ideas cannot be implemented in the organization. The extraction of valuable innovative ideas can be implemented to improve the business performance. The most suitable ideas have important role to promote business success. Therefore, the management of innovation is most important element among the organizations because inappropriate innovative ideas implementation can lead to the decrease in overall performance. Furthermore, the management innovation in the construction company is influenced by the spiritual leadership. It is reported in the literature that innovation and leadership have vital relationship which has influence on the business activity (Araujo et al., 2020; Priarso et al., 2018; Van Zyl & Mathur-Helm, 2007). Spiritual leadership of the management can lead to the development of better innovation ideas and it can confirm the implementation of valuable ideas. Thus, this study proposed the relationship between leadership and management innovation.

*H2: Spirituel leadership has relationship with management innovation.*

### **Organizational Culture**

Organizational culture is dependent on the values and norms prevailed among the organizations. The values and norms among the organizations can influence the working of individuals. The culture of organization is majorly linked with the employees of the company. It can influence significantly on the performance of the employees (Kawiana, Dewi, Martini, & Suardana, 2018; Khair, 2022). In a positive organizational culture, employees can perform better, however, in a negative organizational culture the performance of the employees may be decreased which has negative effect on the overall performance of the business. The organizational culture is influenced by the leadership style (Syakur, Susilo, Wike, & Ahmadi, 2020). The positive leadership style can develop suitable organization culture for the employees to perform better. On the other hand, negative organizational culture can be developed through inappropriate leadership style which may affect adversely the business operations through employee performance.

*H3: Spirituel leadership has relationship with organizational culture.*

Furthermore, the current study also considered that attitude of the contractor towards risk which has influence on management innovation and organizational culture. Risk taking behavior and risk averse behavior of the contractor can affect

employees to the developed of organizational culture and management of innovations. Additionally, this study proposed that the management of risk also has direct influence on entrepreneurs' business performance. Similarly, it is proposed that organization innovation management and organizational culture can affect the entrepreneur's business performance. These relationships are proposed based on the evidences available in the literature related to the relationship between risk management, innovation, organizational culture and entrepreneurs' business success. Consequently, following hypotheses are proposed;

*H4: Attitude towards risk has relationship with management innovation.*

*H5: Management innovation has relationship with organizational culture.*

*H6: Attitude towards risk has relationship with entrepreneurs' business success.*

*H7: Management innovation has relationship with entrepreneurs' business success.*

*H8: Organizational culture has relationship with entrepreneurs' business success.*

Form the aforementioned discussion, the current study also proposed various indirect effects along with the direct effect. With the literature support, the current study proposed the indirect effect of attitude towards risk, innovation management and organizational culture. All the indirect effects are proposed in following hypotheses;

*H9: Attitude towards risk mediates the relationship between spiritual leadership and management innovation.*

*H10: Attitude towards risk mediates the relationship between spiritual leadership and organizational culture.*

*H11: Management innovation mediates the relationship between spiritual leadership and organizational culture.*

*H12: Management innovation mediates the relationship between attitude towards risk and organizational culture.*

*H13: Organizational culture mediates the relationship between attitude towards risk and entrepreneurs' business success.*

*H14: Management innovation mediates the relationship between attitude towards risk and entrepreneurs' business success.*

## **Methodology**

Although number of studies are carried out in construction industry globally. Similarly, number of studies are carried out on construction industry of Thailand. Several studies investigated different aspects of construction industry with the help of quantitative research approach. Few studies are also identified different dimensions of construction industry with the help of qualitative research approach. But it is very rare that any study carried out research on mixed method approach on the construction industry in Bangkok Thailand. In this direction, this study identified the methodological gap and employed a mixed method approach. While considering the mixed method approach, this study developed a survey questionnaire to measure various constructs such as spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture and business entrepreneurs' success. In death interviews are conducted

to consider the qualitative part of the study. Qualitative method is employed to enhance the deep learning of the phenomena addressed in the current study.

A Likert it scale is followed in the study to develop a survey questionnaire (Krzych, Lach, Joniec, Cisowski, & Bochenek, 2018) based on various measures adapted from previous studies. The questionnaire is developed based on the constructs related to spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture and business entrepreneurs' success. The respondents of the current study are the executives and construction business operators of construction industry in Bangkok Thailand. Therefore, questionnaires were distributed among these executives and construction business operators. To handle the qualitative part of the study, the in-death interviews are conducted. The collected data is entered in the Excel sheet and analyzed with the help of statistical tool to achieve the study objectives. For the quantitative research part, the research sample consisted of 380 executives and construction business operators. The sample size was determined based on the criterion of 20 times the observed variables. As for the qualitative research component, in-depth interviews were conducted with 17 key informants including experts with academic and administrative experiences and those with experiences in the construction business administration. The data gathered from the respondents is evaluated through data screening to fix the errors in the data (Wesarat, Majid, Shari, Khaidir, & Susanto, 2018).

## Results

The statistical test of empirical variables is highlighted in Table 1. It shows the data standard deviation of each variable along with the significance value (p-value). Furthermore, before to proceed data analysis, the normality of the data is also examined. Normality of the data is examined by using Skewness and Kurtosis statistics (Desgagné & Lafaye de Micheaux, 2018). These are the recommended values to check the normality of the data before data analysis. Skewness is a measure of symmetry and Kurtosis is a measure of whether the data are heavy-tailed or light-tailed relative to a normal distribution.

Table 1. Statistical test of empirical variables (n=380)

Variable	$\bar{X}$	S.D.	%CV	Sk	Ku	$\chi^2$	P-value
oper	4.17	.61	14.77	-1.028	-2.405	6.839	.033
refor	3.92	.52	13.41	-1.107	3.299	12.108	.002
spiri	4.23	.63	15.05	-1.454	.091	2.122	.346
wrexp	3.89	.62	16.08	-1.223	1.898	5.097	.078
emint	4.55	.55	12.15	-4.998	-3.258	35.596	.000
prfcp	4.23	.60	14.18	-1.593	-.910	3.366	.186
heal	3.52	.82	23.41	-.429	-.496	.430	.806
govpo	4.04	.61	15.31	-1.035	.747	1.629	.443
proin	4.12	.59	14.34	-.986	1.207	2.429	.297
pcsin	4.06	.52	13.00	-.196	3.572	12.795	.002
svcin	3.85	.64	16.68	-1.013	1.292	2.694	.260
csren	3.92	.75	19.13	-1.516	-.218	2.346	.310

joint	4.16	.63	15.30	-1.182	1.282	3.039	.219
revie	4.05	.48	11.90	.108	4.477	2.057	.000
custr	4.22	.59	13.98	-1.362	-.490	2.095	.351
finan	4.05	.51	12.69	.209	2.511	6.351	.042
custo	4.15	.57	13.90	-.815	.644	1.078	.583
intpc	4.01	.61	15.26	-.935	1.056	1.989	.370
ledev	4.15	.58	14.12	-.939	.338	.997	.607

Note: Spiritual leadership = SPRLED; Contractor's attitudes towards risks = RISAT; Management innovation = MANINO; Organizational culture = CULTUR; Construction business entrepreneurs = CONENT

The data set of 380 responses is examined to check the factor loadings. The minimum value of factor loading is 0.4 in the current study. It means that the scale items with factor loadings below 0.4 should be deleted from the study and scale items with factor loadings higher than 0.4 must be retained. The factor loadings related to the spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture and business entrepreneurs' success is presented in Table 2. All the retained items in Table 2 have factor loading higher than 0.4. Additionally, variance explained is also considered with the help of r-square value ( $R^2$ ) which has achieved the satisfactory level along with the t-statistics. Nonetheless, the model fit statistics of the study ( $\chi^2= 222.08$  df = 126 p-value = .00000,  $\chi^2 / df = 1.76$ , RMSEA = .045, RMR = .017, SRMR = .043, CFI = .98, GFI = .94, AGFI = .91, CN = 285.95) also achieved the criteria to confirm the quality of the model.

Table 2 Factor Loadings. (n = 380)

Variable	Factor Loading ( $\lambda$ )	Error ( $\theta$ )	t	$R^2$
<b>Spiritual leadership (SPRLED)</b>				
oper	.42	.32	6.60	.68
refor	.56	.39	7.82	.61
spiri	.81	.34	9.18	.66
<b>Contractor's attitudes towards risks (RISAT)</b>				
wrexp	.55	.20	10.03	.80
emint	.47	.28	7.47	.72
prfcp	.60	.24	9.86	.76
heal	.58	.27	9.41	.73
govpo	.74	.25	13.02	.75
<b>Management innovation (MANINO)</b>				
proin	.49	.36	7.05	.64
pcsin	.82	.34	8.68	.66
svcin	.45	.30	6.66	.70
<b>Organizational culture (CULTUR)</b>				
csren	.51	.24	7.76	.76
joint	.62	.22	10.61	.78
revie	.68	.24	10.68	.76
custr	.62	.22	10.59	.78

Construction (CONENT)	business	entrepreneurs				
finan			.49	.36	8.05	.64
custo			.53	.31	8.93	.69
intpc			.60	.34	10.04	.66
ledev			.78	.30	11.99	.70

$\rho_c = .81, \rho_v = .53$

Note: Spiritual leadership = SPRLED; Contractor's attitudes towards risks = RISAT; Management innovation = MANINO; Organizational culture = CULTUR; Construction business entrepreneurs = CONENT

Table 3 shows the parameter estimation result of direct effect coefficient, indirect effect, and total effect. The current study model along with the results is presented in Figure 2. The relationship between spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture and business entrepreneurs' success is examined through Structural Equation Modeling (SEM). Structural Equation Modeling (SEM) is the suitable data analysis technique (Hair Jr et al., 2021; Rahi & Abd Ghani, 2018) which is used in the current study. Beta coefficient and t-statistics are considered to test the hypotheses. Results in Table 3 identified that; spiritual leadership has significant relationship with contractor's attitude towards risk. Furthermore, it has significant relationship with management innovation. Similarly, spiritual leadership has relationship with organizational culture. The significant relationship found between contractor's attitude towards risk and management innovation. Management innovation influences the organizational culture. Additionally, organizational culture has significant effect on business entrepreneurs' success. Thus, all the direct effect hypotheses are supported. Finally, the indirect effects of contractor's attitudes towards risks, management innovation and organizational culture between spiritual leadership and business entrepreneurs' success is significant. It is also found that the direct effect of contractor's attitudes towards risk and management innovation is significant on business entrepreneurs' success. Therefore, contractor's attitudes towards risks, management innovation and organizational culture is providing a link between spiritual leadership and business entrepreneurs' success.

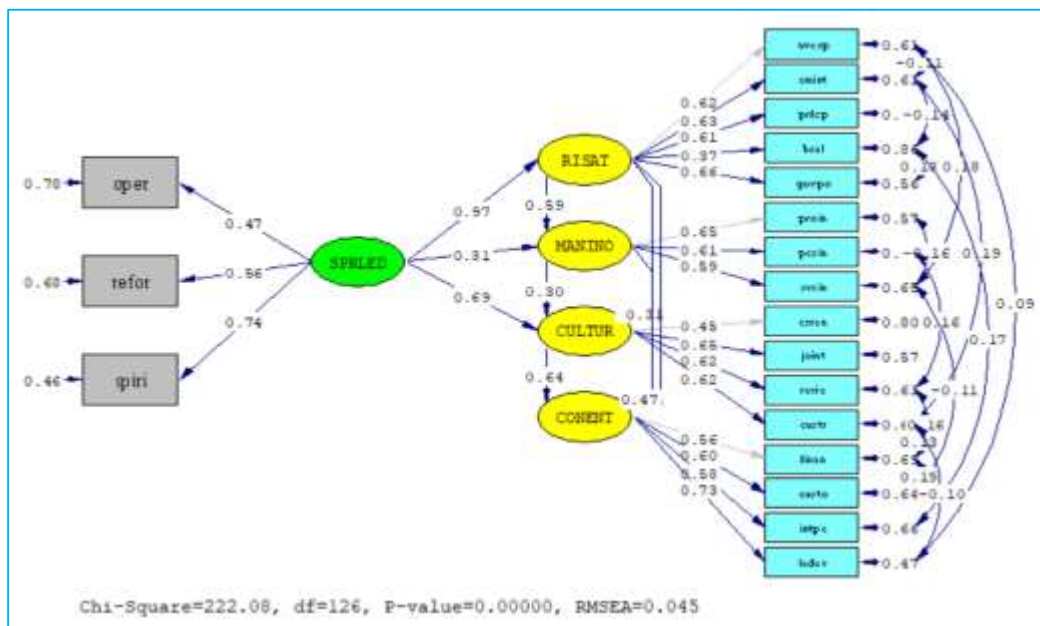
Table 3 Parameter estimation result of direct effect coefficient, indirect effect, and total effect from adjusting model (n=380)

Variable	R <sup>2</sup>	Effect	Variable			
			RISAT	MANINO	CULTUR	SPRLED
RISAT	.94	DE	-	-	-	.97*(11.32)
		IE	-	-	-	-
		TE	-	-	-	.97*(11.32)
MANINO	.66	DE	.59*(6.71)	-	-	.31*(10.01)
		IE	-	-	-	.57*(10.71)
		TE	.59*(6.71)	-	-	.88*(7.44)
CULTUR	.76	DE	.31*(6.62)	.30*(8.90)	-	.69*(10.90)
		IE	.38*(6.54)	-	-	.20*(10.53)
		TE	.69*(7.55)	.30*(8.90)	-	.89*(7.30)

		DE	.34*(9.43)	.47*(4.85)	.64*(5.00)	-
CONENT	.86	IE	.45*(7.34)	.39*(5.87)	-	.82*(9.37)
		TE	.79*(5.31)	.86*(4.71)	.64*(5.00)	.82*(9.37)

$\chi^2= 222.08$  df = 126 p-value = .00000,  $\chi^2 / df = 1.76$ , RMSEA = .045, RMR = .017, SRMR = .043, CFI = .98, GFI = .94, AGFI = .91, CN = 285.95

Note: Spiritual leadership = SPRLED; Contractor’s attitudes towards risks = RISAT; Management innovation = MANINO; Organizational culture = CULTUR; Construction business entrepreneurs = CONENT



Note: Spiritual leadership = SPRLED; Contractor’s attitudes towards risks = RISAT; Management innovation = MANINO; Organizational culture = CULTUR; Construction business entrepreneurs = CONENT

Figure 2 Model (n=380)

**Discussion**

This study attempted to examine the relationship between spiritual leadership, contractor’s attitudes towards risks, management innovation, organizational culture and business entrepreneurs’ success. The construction industry of Bangkok is considered in this study to examine this relationship. By using a mixed method approach, this study collected data through questionnaire survey and interviews. Finally, a statistical tool is employed to achieve the study objective by analyzing the first-hand data. In this way, various hypotheses are test by using Structural Equation Modeling (SEM).

Findings of the study identified that spiritual leadership has significant positive effect on management innovation. It shows that increase in spiritual leadership among the construction businesses can increase the innovative ideas in construction industry. Results of literature also identified the positive relationship between leadership and innovation (Adam, Indradewa, & Syah, 2020; Liao &

Zhang, 2020); therefore, innovation can be promoted with the help of effective leadership. Spiritual leadership also has significant effect on attitude of the contractors. The attitude of the contractors towards the risk management is influenced by the leadership style of the management. Similarly, the previous studies investigated the relationship between attitude of the individuals and leadership style also proved the similar results (ADEDIGBA, EFFRIM, & Odinko, 2019; Bouzari & Safavi, 2021). Consequently, the results of the previous studies and results of the current study are in line with each other's. The organizational culture is also influenced by the leadership style. The better leadership style of management lead towards the positive organizational culture, however, negative leadership style of the management lead towards the adverse culture which may have an adverse effect on the overall performance of business operations. Therefore, it is found that spiritual leadership has positive effect on management innovation, contractors' attitude towards risk management and organizational culture. In addition, it shows that contractor's attitude towards risk also have influence towards innovation. Because the innovative ideas implementation is always risky for the businesses and the risk attitude of the individuals can influence the implementation of innovative ideas. As there is a relationship between innovation and risk management identified by the previous studies. Furthermore, organizational culture is also influenced by management innovation. The proper management of innovation among the organizations lead towards the positive organizational culture which has positive effect on business success. Consistent with the current study, previous study also highlighted the positive effect of organizational culture on business success in various industries (Kassem, Ajmal, Gunasekaran, & Helo, 2018). Nevertheless, results of the study highlighted that along with the direct effects, there are several indirect effects which has influence on construction business performance. It is found that contractor's attitude towards risk management, innovation and organizational culture can transfer the positive effect of spiritual leadership on entrepreneurs' business success in construction industry. Therefore, spiritual leadership, risk management, innovation management and organizational culture has the potential to influence positively the success of entrepreneur's business in construction industry of Bangkok, Thailand.

## **Conclusion**

The current study identified that there are several important factors which has influence on the entrepreneur's business success in the construction industry of Bangkok Thailand. Results of the study proved that leadership is one of the ways to increase enterprises success. The leadership style of the managers among the construction companies has the potential to enhance business success. The behavior of the top management with their employees can change the rate of failure to the rate of success in construction industry of Bangkok. Furthermore, the attitude of contractors towards the risk also may influence the rate of success. As the risk management is one of the critical aspects in any business success, it may lead to the success or failure of the business. Furthermore, innovation as well as culture of the organization can also influence enterprises success. The implementation of innovative ideas and supportive culture can promote the entrepreneurs to achieve higher business success. Therefore, it is concluded that entrepreneur success in construction industry is majorly based on

spiritual leadership, attitude towards risk, innovation and organizational culture. Moreover, findings highlighted the following important points; 1) spiritual leadership, contractor's attitudes towards risks, use of management innovation, organizational culture, and success of the construction business entrepreneurs is rated at a high level for construction industry of Bangkok, Thailand. 2) spiritual leadership, contractor's attitudes towards risks, use of management innovation, and organizational culture has influence on success of the construction business entrepreneurs, and all of which could predict the results strongly. 3) The model for developing the success of the construction business entrepreneurs in Bangkok and its metropolitan region, developed by the current study is called the ALIC Model, in which "A" referring to attitudes towards risk, "L" referring to spiritual leadership, "I" referring to innovation management, and "C" referring to organizational culture.

### **Study Implications**

This study extended the body of knowledge by considering the relationship between spiritual leadership, contractor's attitudes towards risks, management innovation, organizational culture and business entrepreneurs' success in construction industry of Bangkok, Thailand. This relationship has several unique aspects which were not covered by the previous studies. The constructs such as leadership, attitude, innovation and organizational culture is widely addressed in previous studies, but these factors are very rare in construction industry of Bangkok. Especially, contractor's attitudes towards risks is a unique variable in the construction industry of Bangkok which is addressed by the current study. Hence, this study has unique theoretical implications.

This model can be applied as a guideline to promote the success of the construction business entrepreneurs. In addition, also found that the model for developing the success of the construction business entrepreneurs in Bangkok and its metropolitan is highly beneficial for the academics in terms of extending and building upon the knowledge on modern management science. It is also useful for the construction business executives as it can be used as a guideline for the business operation. Especially it is helpful in terms of the contractors' attitudes towards risks which could help in conducting an operational risk analysis, using management innovations as a tool to manage the business in accordance with the current situations. Furthermore, culture is helpful as creating an organizational culture that represents corporate responsibility to the environment and society and demonstrating spiritual leadership in working and reforming the business and organization to ensure sustainability in the operation of the construction business in the future.

### **Limitations and Future Directions**

The current study covered the important aspects of construction industry of Thailand. The study highlighted several literature gaps and contributed to the literature, however, few of the points are not addressed in the current study due to the time limitation as well as resources constants. First, this study considered spiritual leadership, however, transactional leadership and transformational leadership are the most important types of leadership. These types are not

covered by the current study; therefore, it is recommended to the future studies to consider transactional leadership style and transformational leadership style while considering the entrepreneurs business performance in construction industry. Second, this study only considered the direct effect and mediating effect of different constructs, however, the moderating effect is not considered. According to this study, top management behavior has influential role in entrepreneurs' business success, therefore, it should be considered as moderating variable in the current framework of the study. The future studies should involve top management as moderating variable which can highlight the better relationship between these variables. Third, this study is only based on Bangkok Thailand, the future studies should cover the whole construction industry of Thailand rather than to focus only one City.

## References

- Adam, J. K., Indradewa, R., & Syah, T. Y. R. (2020). The leadership styles impact, in learning organizations, and organizational innovation towards organizational performance over manufacturing companies, Indonesia. *Journal of multidisciplinary academic*, 4(2), 63-69.
- ADEDIGBA, O., EFFRIM, P. K., & Odinko, M. N. (2019). Managements' Leadership Style and Early Childhood Education (ECE) Teachers' Attitude to Work in Offa Local Government Area, Kwara State, Nigeria. *International Journal of Psychology and Education*, 3(03).
- Alfadil, M. O., Kasseem, M. A., Ali, K. N., & Alaghbari, W. (2022). Construction industry from perspective of force majeure and environmental risk compared to the CoViD-19 outbreak: a systematic literature review. *Sustainability*, 14(3), 1135.
- Altaf, M., Hameed, W., Nadeem, S., & Shahzad, A. (2019). Successful entrepreneurial process as contributor towards business performance in banking: moderating role of passion for inventing. *South Asian Journal of Management Sciences*, 13(1), 13-40.
- Araujo, C. C., Giri, E. E., & Soares, A. D. C. (2020). The Effect of Leadership and Employee Motivation on Business Success and Organizational Performance (Study at Aeroporto Presidente Nicolau Lobato, Dili and Timor Leste). *International Journal of Multicultural and Multireligious Understanding*, 7(7), 506-514.
- Bouzari, M., & Safavi, H. P. (2021). The association between servant leadership and lateness attitude: the mediation effects of career adaptability and job embeddedness. *European Journal of Tourism Research*, 28, 1-24.
- Chaveesuk, S., Khalid, B., & Chaiyasoonthorn, W. (2020). *Understanding stakeholders needs for using blockchain based smart contracts in construction industry of Thailand: Extended TAM framework*. Paper presented at the 2020 13th International Conference on Human System Interaction (HSI).
- Desgagné, A., & Lafaye de Micheaux, P. (2018). A powerful and interpretable alternative to the Jarque-Bera test of normality based on 2nd-power skewness and kurtosis, using the Rao's score test on the APD family. *Journal of Applied Statistics*, 45(13), 2307-2327.
- Endres, H., Huesig, S., & Pesch, R. (2022). Digital innovation management for entrepreneurial ecosystems: services and functionalities as drivers of

- innovation management software adoption. *Review of Managerial Science*, 16(1), 135-156.
- Galli, G., Tedeschi, M., & Martini, M. C. (2018). The Frame Effect Revisited: Is Trust able to Transform People from Risk Averse to Risk Taker? *Journal of Emerging Trends in Marketing and Management*, 1(1), 185.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R: A Workbook*: Springer Nature.
- Jogunola, A. M. (2013). *Attitudes of Policy Makers and Entrepreneurs towards Enterprise Development Performance in the Construction Industry of South Africa Research submitted*. University of the Witwatersrand.
- Kassem, R., Ajmal, M., Gunasekaran, A., & Helo, P. (2018). Assessing the impact of organizational culture on achieving business excellence with a moderating role of ICT: An SEM approach. *Benchmarking: An International Journal*.
- Kawiana, I. G. P., Dewi, L. K. C., Martini, L. K. B., & Suardana, I. B. R. (2018). The influence of organizational culture, employee satisfaction, personality, and organizational commitment towards employee performance. *International research journal of management, IT and social sciences*, 5(3), 35-45.
- Kerdngern, N., & Thanitbenjasith, P. (2017). Influence of contemporary leadership on job satisfaction, organizational commitment, and turnover intention: A case study of the construction industry in Thailand. *International Journal of Engineering Business Management*, 9, 1847979017723173.
- Khair, H. (2022). The Effect of Training and Organizational Culture on Employee Performance Mediated by Work Discipline in the Electronic Facility & IT Division PT. Angkasa Pura II (Persero) Kantor Cabang Bandara Internasional Kualanamu. *Jurnal Mantik*, 6(1), 312-320.
- Krzych, Ł. J., Lach, M., Joniec, M., Cisowski, M., & Bochenek, A. (2018). The Likert scale is a powerful tool for quality of life assessment among patients after minimally invasive coronary surgery. *Kardiochirurgia i torakochirurgia polska= Polish journal of cardio-thoracic surgery*, 15(2), 130.
- Liao, Z., & Zhang, M. (2020). The influence of responsible leadership on environmental innovation and environmental performance: The moderating role of managerial discretion. *Corporate Social Responsibility and Environmental Management*, 27(5), 2016-2027.
- Meng, S., & Zhang, X. (2022). The Use of Internet of Things and Cloud Computing Technology in the Performance Appraisal Management of Innovation Capability of University Scientific Research Team. *Computational Intelligence and Neuroscience*, 2022.
- Priarso, M. T., Diatmono, P., & Mariam, S. (2018). The effect of transformational leadership style, work motivation, and work environment on employee performance that in mediation by job satisfaction variables in PT. Gynura Consulindo. *Business and Entrepreneurial Review*, 18(2), 165-176.
- Rahi, S., & Abd Ghani, M. (2018). A structural equation modeling (SEM-AMOS) for investigating brand loyalty and customer's intention towards adoption of internet banking. *Economic and Social Development: Book of Proceedings*, 206-220.
- Sajjachayaphan, C. (2021). FACTORS AFFECTING THE SUCCESS OF ENTREPRENEURS IN THE SUSTAINABLE ADMINISTRATION OF SMALL AND MEDIUM CONSTRUCTION BUSINESSES. *International Journal of Entrepreneurship*, 25, 1-10.

- Soparat, P., Wangapisit, O., & Trangkanont, S. (2021). THE DEVELOPMENT OF STRATEGIC MANAGEMENT PLANS FOR CONSTRUCTION EQUIPMENT, VEHICLES, AND TOOLS UNDER THE TRANSPORTATION POLICY TRANSFORMATIONS IN THAILAND. *ASEAN Engineering Journal*, 11(4), 107-128.
- Syakur, A., Susilo, T. A. B., Wike, W., & Ahmadi, R. (2020). Sustainability of Communication, Organizational Culture, Cooperation, Trust and Leadership Style for Lecturer Commitments in Higher Education. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(2), 1325-1335.
- Van Zyl, H. J., & Mathur-Helm, B. (2007). Exploring a conceptual model, based on the combined effects of entrepreneurial leadership, market orientation and relationship marketing orientation on South Africa's small tourism business performance. *South African journal of business management*, 38(2), 17-24.
- Wesarat, P.-o., Majid, A., Shari, M., Khaidir, A., & Susanto, P. (2018). Mediating effect of job satisfaction on the relationship between work-life balance and job performance among academics: Data screening. *International Journal of Engineering & Technology*, 7, 214-216.
- Wuni, I. Y., & Shen, G. Q. (2020). Critical success factors for management of the early stages of prefabricated prefinished volumetric construction project life cycle. *Engineering, Construction and Architectural Management*, 27(9), 2315-2333.