

NEWS STRATEGIC PLAN USE FOR ENHANCING STRATEGIC VOICE NEWS IN THAI DRUG-MAKING FIRMS

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Abstract

It is well known that strategic planning along with the right kind of information and alignment helps to sustain a competitive position within the market. The information processing theory also demonstrates that the strategic plan and self-efficacy are very significant for the success of the organization. The significant aim of the current study is to determine the impact of strategic plan use on the strategic voice of the drug making industry in Thailand with the help of mediating the role of perceived self-efficacy, perceived strategic alignment and performance information use. For this purpose, the CEO, top managers as well as directors are chosen as a target audience for the data collection. The data has been collected through a questionnaire that is distributed online as well as physical contact. This is important to mention that the sample size was 433, whom 190 were female and 243 were male. Moreover, various analysis techniques are used also. The results and figures of tables have indicated that all hypotheses of the study have accepted. The SEM table and model explained that perceived self-efficacy, strategic alignment, and information using all have a positive mediating role in the relationship of plan use and strategic voice of the drug industry. Finally, it is recommended that future studies must provide opportunities in a different context to make research more reliable.

Keywords: Strategic voice, Strategic plan use, perceived self-efficiency, strategic alignment, performance information use.

1. INTRODUCTION

In current highly diverse and competitive market, it becomes a major need in front an entrepreneur to critically evaluate the strategic approach of the rival company and also consider the changing environmental factors in the targeted market, and then made some effective strategies in the decision making process of a company (Robertson, 2019). Being an entrepreneur, effective strategic planning and the performance information will help the company to enhance its strategic voice in the customer and competitor market. In a business field, some basic principles enhanced the goal setting approach of a businessman like clarify the vision, collect & analyze the related information, formulate the strategies, efficiently implement the strategies and then evaluate its performance level by making a firm control on it (Lang, 2019; Ogah, 2018).

In the pharmaceutical industry, the self-efficiency and strategic alignment motivates the pharmacists to make some major changes in their strategic approach in the market. Such an efficient strategic approach helps a manager to secure the lives of people by generating some advanced medical tools and drugs in their lab. The majority of the pharmaceutical companies majorly worked on implementing advanced technology in the production process of advanced health drugs(Childs, 2017; Johnson, 2018).

In Thailand, the majority of the national and international pharmaceutical companies play an important role to upgrade the performance level of their generated health drugs in the market. Their pharmacists and medical researchers made different plans on a regular basis in order to overcome the threat of advanced virus in the society(Shanmugaraj, Malla, & Phoolcharoen, 2020). Many Australian and French pharmacists also joined them in order to overcome the negative impact of corona-virus on the people's health. Many lab researches and tests are developed in order to generate an effective vaccine against this virus(Dhama et al., 2020). According to the latest research, different pharmacy and biotech companies are involved in this vaccine developing program against corona-virus, which details are given below;

Company	Ticker	Technology	Most Advanced Stage
Abbvie	ABBV	Small Molecule Drugs	Market (HIV)
Gilead	GILD	Small Molecule Drugs	Phase 2/3 (Ebola)
Inovio	INO	DNA Vaccine	Preclinical
Geovax	GOVX	Vaccine	Preclinical
J&J	JNJ	Small Molecule Drugs & Vaccine	Preclinical (Vaccine) Market (HIV)
Novavax	NVAX	Virus like particles & vaccines	Preclinical
Moderna	MRNA	mRNA molecule	Preclinical
Vaxart	VXRT	Oral Vaccine	Preclinical
Regeneron	REGN	Monoclonal Antibodies	Phase 1 (MERS)
Vir	VIR	Monoclonal Antibodies	Preclinical

Table 1: Selected Companies with vaccine or drug Program against the Coronavirus

The above table shows the real picture of the latest strategic approach of Pharmacists Companies in Thailand. This strategic alignment will help the upcoming pharmacist to drive new ways in order to overcome the challenging viruses in the society and also help them to maintain their good reputation in the customer market(Childs, 2017; Dhama et al., 2020).

2. LITERATURE REVIEW

2.1 Strategic Plan Use and Strategic Voice

In 2016, Rothaermel stated that an effective strategic plan plays an important role to make a good reputation of the brand in the market. According to them, it is quite necessary for the current product and service-oriented companies to majorly work on creating a positive word of mouth regarding different forms of operational activities in the customer market (Rothaermel,

2016). According to Mulliez, Pomey, Bordeleau, Desbiens, & Pelletier, such strategic planning for the public and non-profit organizations will play an important role to strengthen and sustain an organizational achievement in the highly diverse market (Mulliez, Pomey, Bordeleau, Desbiens, & Pelletier, 2018).

In 2020, scholars concluded that most of the managers majorly focused on the effective strategic plan in the operating activities in order to make an effective strategic voice in the market, which result in the development of customer loyalty towards the company's brand (Meyfrodtt & Desmidt, 2020). According to the business researchers, such a strategic plan helps management to fulfill the needs and desires of the targeted customers and employees in the market (Bryson, 2018; Malik, 2018). According to the scholars, a strategic committee for the patient engagement plays an important role to formalize the participation of patient as a partner. According to them, an efficient facility factor like leadership, executive management support and vision behind the participation, plays a significant role to motivate the management to majorly focus on the customer-oriented strategic approach in their operating activities within a company. So, the following hypothesis is generated from the above studies;

H1: There is a significance direct relationship between Strategic Plan Use and Strategic Voice

2.2 Mediating role of Performance Information Use between Strategic Plan Use and Strategic Voice

According to Tarafdar & Qrunfleh, an efficient usage of the performance related information from the inside and outside organizational environment plays an important role to shape the behavior and culture of an organizational management (Tarafdar & Qrunfleh, 2017). According to the business scholars, such information plays an important role to upgrade the strategic approach of the organizational leadership and its decision making process regarding the new development projects (Meyfrodtt & Desmidt, 2020; Rasheed, Shahzad, Conroy, Nadeem, & Siddique, 2017).

In 2017, Chan, Ngai, & Moon stated that a performance information based data and its regular usage in the strategies help an organization to secure its position in the upcoming challenges and made such voice in the customer, which enhances their confidence level towards the operational activities of a company. They concluded that for pharmaceutical companies such approaches enhanced their positive word of mouth in the customer market (Chan, Ngai, & Moon, 2017). Cepiku, Hinna, Scarozza, & Savignon stated that being a manager, it is his major responsibility to overcome the barrier between the organization and its stakeholders, so that an authentic and highly acceptable strategic plan will generate which enhanced the positive strategic voice of a company in the market (Cepiku, Hinna, Scarozza, & Savignon, 2017). Hence, the following hypothesis is proposed from the above results;

H2: Performance Information Use plays a significant mediating role between Strategic Plan Use and Strategic Voice

2.3 Mediating role of Perceived Self-Efficiency between Strategic Plan Use and Strategic Voice

According to Zhang, Cheng, Luo, & Fu, a perceived self-efficiency is a basic entrepreneurial skill in a perfect manager, who has a firm belief on his capabilities to produce the designated level of activities which he performed in strategies and decision making process (Zhang, Cheng, Luo, & Fu, 2016). According to scholars, self-efficiency enhances the positive impact of strategic plan use on the strategic voice of a company (Monfared & Iraj, 2016). According to Kirana & Muchtar, this mastery and vicarious based experience and verbal persuasion of a manager helps him to directly hit the targeted customers by fulfilling their needs and desires.

In 2018, they stated that such emotional and psychological intelligence of a risk taker helps the organization to efficiently make some entrepreneurial and challenging projects in the customer oriented strategies, and due to this, a positive strategic voice will be generated in the market (Kirana & Muchtar, 2018). In 2017, they stated that it enhanced the ratio of the profit margin of a company due to the efficient strategic approach of the entrepreneurs (Ghezelseflou & Ashouri, 2017). Alheet stated that this self-efficiency factor plays an important controlling variable in order to strengthen the profit oriented strategic approach of the organization in the current digital era (Alheet, 2019). So, the following hypothesis is suggested from the above studies;

H3: Perceived Self-Efficiency plays a significant mediating role between Strategic Plan Use and Strategic Voice

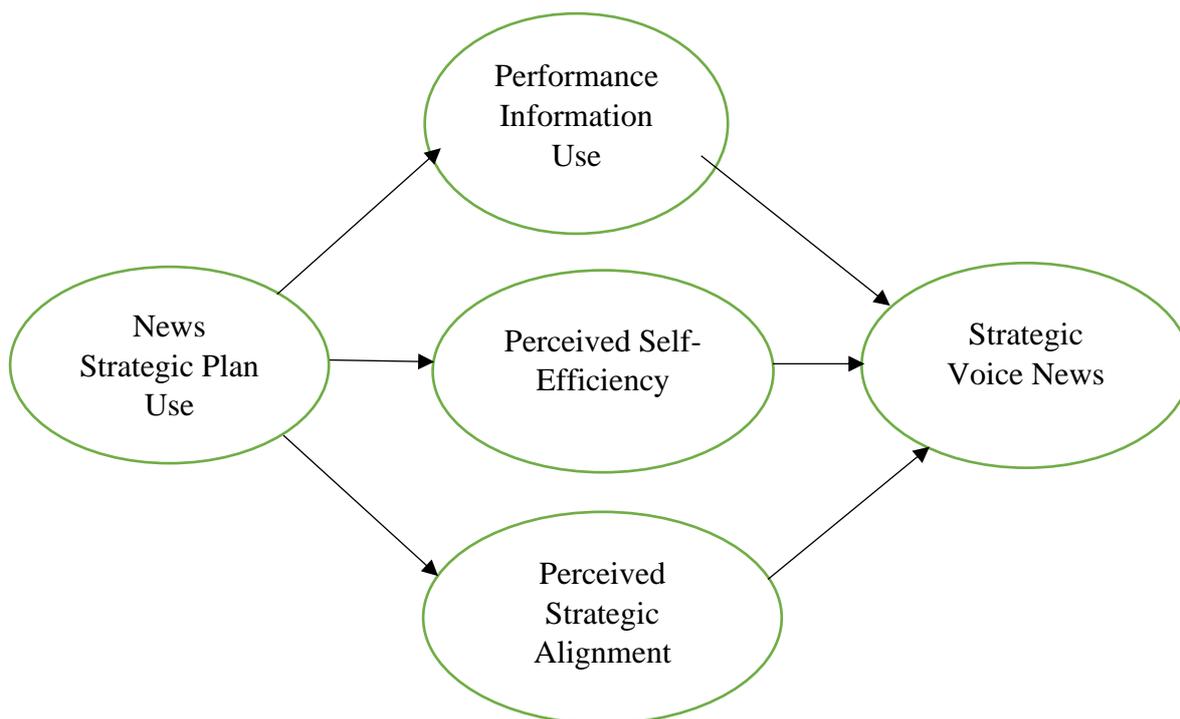
2.4 Mediating role of Perceived Strategic Alignment between Strategic Plan Use and Strategic Voice

In 2017, Verma & Bhattacharyya critically evaluated the importance of the perceived strategic alignment on the effective strategic approach of a company. According to them, this behavioral approach of a management helps them to make developmental projects which are directly aligned with the customers, marketplace and users that lead to the economic success (Verma & Bhattacharyya, 2017). According to other scholars, such a portfolio plays an important role to link different projects and programs to the strategic plan of an organization (Falkheimer et al., 2017; Hill, 2017; Verma & Bhattacharyya, 2017).

In 2018, Croft said that in the current highly competitive environment, it becomes a major need to develop such product range that is best suited to the end users (Croft, 2018). Ashford, Ong, & Keeves concluded that due to this strategicalignment, it becomes easy for an entrepreneur to achieve his profit oriented goals by efficiently saving time and other resources (Ashford, Ong, & Keeves, 2017). The scholars concluded that an efficient strategic alignment will increase the effective usage of strategic planning in the stakeholder oriented strategic voice of a company in the highly diverse market. According to them, it is a basic need to survive in a highly diverse market. So, the following hypothesis is proposed from above studies;

H4: Perceived Strategic Alignment plays a significant mediating role between Strategic Plan Use and Strategic Voice

2.5 Theoretical Framework



3. METHODOLOGY

3.1 Research context and data collection

This study was conducted in pharmaceutical sector of Thailand, the drug making firms were targeted to collect data for this research through a survey. Main reason behind selecting this sector was that it is the fastest growing market in Thailand and is exposed to high level of changes so need strategic plans to keep pace with changes. CEOs, directors and top managers were invited to participate in survey because they are the most appropriate source for organizational and strategic level information. Additionally, all strategic decisions are made at top level. Based on purposive sample, 433 workers operating in this industry were selected as final sample. Data was collected in two stages, initially questionnaire to all firms were sent through email, when a reasonable number of responses were not gained, questionnaires were delivered by research team in the firms. In round one 255 responses were obtained whereas in round two further 195 questionnaires were added to responses. 433 responses were used in analysis after data screening. Statistics shows that 56.10% were male and 43.90% were

females, 30% have post-graduation degree, 45% have graduation level education and 25% had college level qualification. 198 workers have age of 25 to 35 years and majority has experience of 2 to 5 years working in this industry.

3.2 Measures

All scales used in this study are derived from previous studies and are measured, using a five-point Likert scale (ranging from 1 strongly disagree to 5 strongly agree), adapting or adopting validated items to measure the variables.

To get measures for strategic voice, LePine and Van Dyne (1998) 'voice' scale was utilized. Three items were adapted to evaluate this construct like "they give recommendation and ideas to improve firm strategies" respondents indicated the extent to which they participate in strategic plans on 5 Point Likert-scale. The three items had Cronbach's alpha = 0.815 for strategic voice. Perceived self-efficacy is measured by drawing and changing four items from Westphal and Bednar (2005) scale developed to measure perceived ability to contribute. Respondents rated their perceived ability of participating in strategic planning and discussion on five Likert (1= very poor and 5= very strong). Statistical results showed Cronbach's alpha = 0.871. In addition, strategic plan use is measured by a modified version Kroll and Vogel (2014) three items scale to measure the degree to which firms use strategic plan, participant's reactions were note on 5-Point Likert scale results yielded Cronbach's alpha=0.861.

Performance information use is investigated by using the four items developed by Moynihan (2005) for evaluation of use of performance information in these firms. The items were altered according to the requirement of this research to measure respondent's usage of performance information to overview the strategy on five-point Likert scale, results showed Cronbach alpha $\alpha = 0.899$ as composite reliability. Items for strategic alignment evaluation were obtained from Papke-Shields and Malhotra (2001) work, four items were applied to check how firm's operations are perceived to be aligned with strategy. One of the sample item is "aligning strategy with operations might benefit the firm" responses were rated as 1= strongly disagree and 5=strongly agree. Composite reliability was $\alpha = 0.87$.

4. FINDINGS

4.1 Demographics

The demographical characteristics being focused upon are the gender, age and work experience dimensions of respondents. The gender is distributed unequally; the sample represents 56.1 percent male and 43.9 percent female respondents. The age distribution of 75.5 percent sample is between 20 and 35 years. 72.5 percent of the sample had working experience between 2 and 8 years. The unequal gender representation is observed because fewer women are found in managerial positions, the variation in age and experience values are depiction of the discrepancy in respondents.

4.2 Descriptive Analysis

The mean values are approaching 4, which points towards the assertion of respondents with the variable' statements. The skewness values although negative but are less than -1 which is a confirmation of the assumptions of the normality distribution being fulfilled. However, outliers were found to be present in the data, they were removed and then other tests were performed on the data.

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
PeInfUse	433	1.00	5.00	3.1624	1.09868	-.146	.117
PeSelfEff	433	1.00	5.00	3.3791	1.04065	-.375	.117
PeStrAlig	433	1.00	5.00	3.4721	1.19047	-.501	.117
StrgUse	433	1.00	5.28	3.4036	1.17424	-.494	.117
StrPIUse	433	1.00	5.00	3.5235	1.17541	-.543	.117
Valid N (listwise)	433						

4.3 KMO

The KMO measure or values are used to determine the adequateness of the sample. A KMO value more than 0.6 and approaching 1 and sphericity significance are an indication of the sampling adequacy. These two measures are pre-requirements for factor analysis, as both are fulfilled the sampling data is tested for factor contribution.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	6995.621
	df	153
	Sig.	.000

4.4 Factor Analysis

The component matrix is structured in order to determine the contribution of scale item sin the variation of the construct. The loadings of each individual scale item is greater than 0.7 (Hassan, Hameed, Basheer, & Ali, 2020; Iqbal & Hameed, 2020)and therefore contributes significantly in the variation of the constructs. The issue of cross-loading isn't observed.

Table 4: Rotated Component Matrix^a

	Component				
	1	2	3	4	5
IS1					.805
IS2					.869
IS3					.852
SE1			.774		
SE2			.804		
SE3			.812		
SE4			.846		
SA1		.844			
SA2		.853			
SA3		.859			
SA4		.885			
SU1	.865				
SU2	.877				
SU3	.867				
SU4	.871				
SP1				.853	
SP2				.871	
SP3				.881	

4.5 Convergent and Discriminant Validity

Table 5 presents the results of discriminant and convergent validity. CR and AVE values are used to determine convergent validity. CR and Ave have threshold limits of 0.7 and 0.5, the values of both indicators are greater than these limits thus convergent validity is present. The variables are more associated with themselves in comparison to other variables and the MSV values are also less than AVE thus discriminant validity is also present.

Table 5: Convergent and Discriminant Validity

	CR	AVE	MSV	SU	IS	SE	SA	SP
SU	0.945	0.811	0.286	0.900				
IS	0.918	0.789	0.329	0.449	0.888			
SE	0.892	0.676	0.329	0.442	0.574	0.822		
SA	0.943	0.807	0.286	0.535	0.488	0.421	0.898	
SP	0.913	0.778	0.243	0.349	0.455	0.493	0.419	0.882

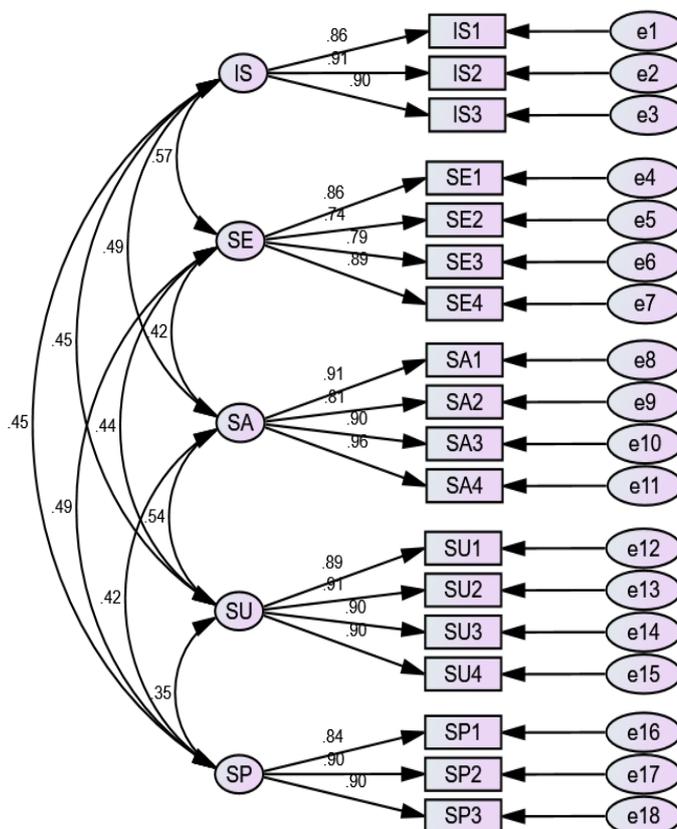
4.6 CFA

Model fitness is proclaimed by the CFA test. The thresholds of CMIN, IFI, CFI, GFI and RMSEA are being fulfilled, thus model is fit.

Table 6: Confirmatory Factors Analysis

Indicators	Threshold range	Current values
CMIN/DF	Less or equal 3	2.953
GFI	Equal or greater .80	.911
CFI	Equal or greater .90	.965
IFI	Equal or greater .90	.965
RMSEA	Less or equal .08	.067

Figure 1: CFA



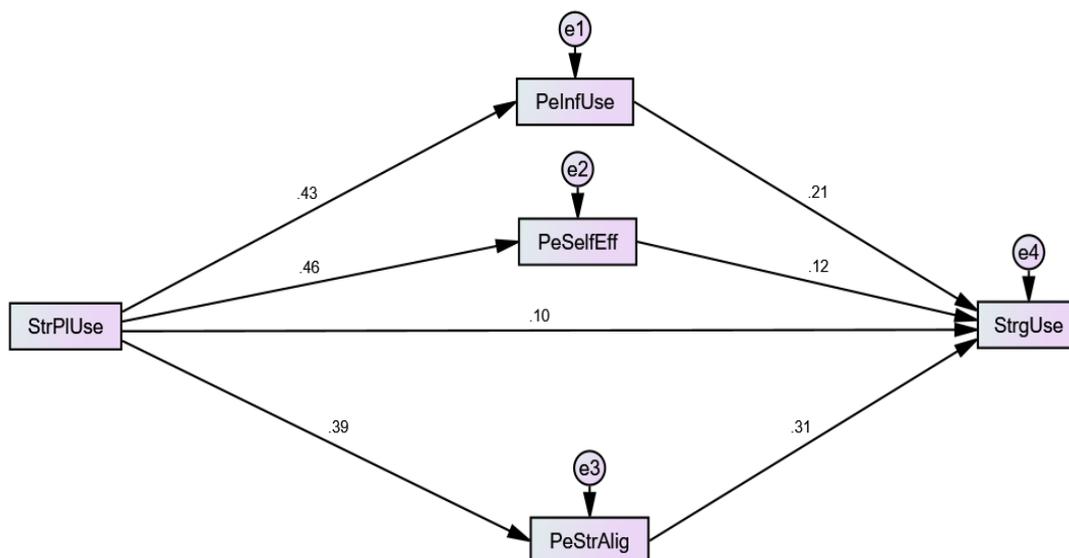
4.7 SEM

A unitary increase in StrPIUse influences a variation of 10.5 percent in StrgUse, the relationship is significant and the hypothesis is accepted. The change in PeStrAlig, PeSelfEff and PeInfUse produce a variation of 31.4 percent, 11.8 percent and 20.6 percent in StrgUse. All three relationships are significant therefore the hypotheses are accepted.

Table 7: Structural Equation Modeling

Total Effect	StrPIUse	PeStrAlig	PeSelfEff	PeInfUse
PeStrAlig	.392***	.000	.000	.000
PeSelfEff	.461***	.000	.000	.000
PeInfUse	.427***	.000	.000	.000
StrgUse	.370***	.314***	.118**	.206**
Direct Effect	StrPIUse	PeStrAlig	PeSelfEff	PeInfUse
PeStrAlig	.392***	.000	.000	.000
PeSelfEff	.461***	.000	.000	.000
PeInfUse	.427***	.000	.000	.000
StrgUse	.105*	.314***	.118**	.206**
Indirect Effect	StrPIUse	PeStrAlig	PeSelfEff	PeInfUse
PeStrAlig	.000	.000	.000	.000
PeSelfEff	.000	.000	.000	.000
PeInfUse	.000	.000	.000	.000
StrgUse	.265**	.000	.000	.000

Figure 2: SEM



5. DISCUSSION

According to the research by Zerfass, Verčič, Nothhaft, and Werder (2018), the practice of strategic planning is very significant to a firm and organization because it mainly gives a sense of outlines and the right direction to achieving goals. However, the results of the study indicate that the impact of strategic planning use is significant and positive on the strategy voice of the firm. This is because strategic planning use is an important tool that plays a significant part in guiding day to day decisions and also for identifying changing and development approaches. Therefore, the hypothesis regarding the direct effect of strategic planning use has been accepted. Verdicts of the study also manifest that the mediating variable of performance information use positively mediates the relationship between SPU and strategy voice of the firm. Performance information helps a firm in identifying how well an organization meets its objectives which positively influence the strategic planning use of the firm and enhance the strategic voice.

The third result of the study which is related to the mediating role of perceived self-efficacy indicates that perceived self-efficacy can significantly mediate the relationship between SPU and SV. Perceived self-efficacy is the individual faith about their abilities to generate good levels of performance and this can positively influence the use of strategic planning (McGee & Peterson, 2019).

6. CONCLUSION

The major objective of the study is to evaluate the strategic voice of the drug-making firms of Thailand through the use of strategic planning. The given research study also examines the mediating impact of performance information and data used, perceived self-efficacy and perceived strategic alignment. The results of the study mainly based on the data and information from 433 employees of drug-making firms in Thailand, out of which 243 were male and 190 were females confirm this given idea.

6.1 Implications and Limitations

All the positive and effective verdicts of the study will apply to the drug making industry of Thailand and also help them to understand the importance of strategic planning use to improve the strategic voice of the firm. The results of the study also provide opportunities for fellow researchers to use its findings in the future to draw more widely and accurate results.

Despite their contributions, at least two limitations need to be mentioned. First, the given research did not investigate how strategic voice of the firm behavior during some phases of the process of decision making, so, future analysts should address this gap and limitation. Second, the study used only one independent variable to find the performance of strategic voice, therefore, future studies must go with the use of other independent variables.

REFERENCES

- Alheet, A. F. (2019). The Impact of Organizational Silence Causal Factors on Self-Efficacy of Health Center Employees in the Jordanian Capital City (Amman). *Academy of Strategic Management Journal*.
- Ashford, S. J., Ong, M., & Keeves, G. D. (2017). The role of issue selling in effective strategy making *Handbook of middle management strategy process research*: Edward Elgar Publishing.
- Bryson, J. M. (2018). *Strategic planning for public and nonprofit organizations: A guide to strengthening and sustaining organizational achievement*: John Wiley & Sons.
- Cepiku, D., Hinna, A., Scarozza, D., & Savignon, A. B. (2017). Performance information use in public administration: an exploratory study of determinants and effects. *Journal of Management & Governance*, 21(4), 963-991.
- Chan, A. T., Ngai, E. W., & Moon, K. K. (2017). The effects of strategic and manufacturing flexibilities and supply chain agility on firm performance in the fashion industry. *European Journal of Operational Research*, 259(2), 486-499.
- Childs, H. C. (2017). Strategies that logistics leaders use for achieving successful process improvement.
- Croft, C. D. (2018). Hearing the authentic voice of stakeholders? Implications for governance of tourism strategy-making. *Current Issues in Tourism*, 21(14), 1670-1689.
- Dhama, K., Sharun, K., Tiwari, R., Sircar, S., Bhat, S., Malik, Y. S., . . . Rodriguez-Morales, A. J. (2020). *Coronavirus Disease 2019–COVID-19*.
- Falkheimer, J., Heide, M., Nothhaft, H., von Platen, S., Simonsson, C., & Andersson, R. (2017). Is Strategic Communication too important to be left to Communication Professionals?: Managers' and coworkers' attitudes towards strategic communication and communication professionals. *Public Relations Review*, 43(1), 91-101.
- Ghezelseflou, H. R., & Ashouri, T. (2017). Relationship between transactional and transformational styles and turnover in sport organizations. *International Journal of Applied Behavioral Sciences*, 4(3), 10-19.
- Hassan, S. G., Hameed, W. U., Basheer, M. F., & Ali, J. (2020). ZAKAT COMPLIANCE INTENTION AMONG SELF-EMPLOYED PEOPLE: EVIDENCE FROM PUNJAB, PAKISTAN. *AL-ADWAH*, 34(2), 80-96.
- Hill, T. (2017). *Manufacturing strategy: the strategic management of the manufacturing function*: Macmillan International Higher Education.
- Iqbal, J., & Hameed, W. U. (2020). Open Innovation Challenges and Coopetition-Based Open-Innovation Empirical Evidence From Malaysia Innovative Management and Business Practices in Asia (pp. 144-166): IGI Global.
- Johnson, D. N. (2018). Strategies Small Business Salon Owners Use to Survive Longer Than 5 Years.
- Kirana, W., & Muchtar, H. (2018). The Effect of Problem Based Learning and Self Efficiency for Improving Learning Outcomes in Pshychiatric Nursing Education. *American Journal of Educational Research*, 6(8), 1102-1110.
- Kroll, A., & Vogel, D. (2014). The PSM–leadership fit: A model of performance information use. *Public Administration*, 92(4), 974-991.
- Lang, M. R. (2019). Strategies to Foster Employee Engagement Before, During, and After Organizational Mergers.
- LePine, J. A., & Van Dyne, L. (1998). Predicting voice behavior in work groups. *Journal of applied psychology*, 83(6), 853.

- Malik, A. (2018). *Managing Employee Voice Strategic Human Resource Management and Employment Relations* (pp. 105-117): Springer.
- McGee, J. E., & Peterson, M. (2019). The long-term impact of entrepreneurial self-efficacy and entrepreneurial orientation on venture performance. *Journal of Small Business Management*, 57(3), 720-737.
- Meyfroodt, K., & Desmidt, S. (2020). Can rational planning stimulate cooperative behaviour? How perceived self-efficacy mediates the relationship between strategic plan use, performance information use and strategic voice by local councillors. *Public Management Review*, 1-25.
- Monfared, S., & Iraj, A. (2016). R, The Relationship between Job Satisfaction and Organizational Justice and Self-Efficiency of Education Principals, Sari Province. *Journal of Administrative Management, Education and Training*, 12(4), 275-285.
- Moynihan, D. P. (2005). Goal-based learning and the future of performance management. *Public Administration Review*, 65(2), 203-216.
- Mulliez, A.-P. E., Pomey, M.-P., Bordeleau, J., Desbiens, F., & Pelletier, J.-F. (2018). A voice for the patients: Evaluation of the implementation of a strategic organizational committee for patient engagement in mental health. *PLoS ONE*, 13(10).
- Ogah, M. S. (2018). *Productivity and employee behavior change strategies in two Nigerian manufacturing organizations*.
- Papke-Shields, K. E., & Malhotra, M. K. (2001). Assessing the impact of the manufacturing executive's role on business performance through strategic alignment. *Journal of Operations management*, 19(1), 5-22.
- Rasheed, M. A., Shahzad, K., Conroy, C., Nadeem, S., & Siddique, M. U. (2017). Exploring the role of employee voice between high-performance work system and organizational innovation in small and medium enterprises. *Journal of Small Business and Enterprise Development*.
- Robertson, J. (2019). *Leadership Strategies to Sustain Small Fitness Businesses*. Walden University.
- Rothaermel, F. T. (2016). *Strategic management: concepts (Vol. 2)*: McGraw-Hill Education.
- Shanmugaraj, B., Malla, A., & Phoolcharoen, W. (2020). Emergence of Novel Coronavirus 2019-nCoV: Need for Rapid Vaccine and Biologics Development. *Pathogens*, 9(2), 148.
- Tarafdar, M., & Qrunfleh, S. (2017). Agile supply chain strategy and supply chain performance: complementary roles of supply chain practices and information systems capability for agility. *International Journal of Production Research*, 55(4), 925-938.
- Verma, S., & Bhattacharyya, S. S. (2017). Perceived strategic value-based adoption of Big Data Analytics in emerging economy. *Journal of Enterprise Information Management*.
- Westphal, J. D., & Bednar, M. K. (2005). Pluralistic ignorance in corporate boards and firms' strategic persistence in response to low firm performance. *Administrative Science Quarterly*, 50(2), 262-298.
- Zerfass, A., Verčič, D., Nothhaft, H., & Werder, K. P. (2018). Strategic communication: Defining the field and its contribution to research and practice. *International Journal of Strategic Communication*, 12(4), 487-505.
- Zhang, M., Cheng, X., Luo, X., & Fu, S. (2016). An Empirical Business Study on Service Providers' Satisfaction in Sharing Economy. Paper presented at the 2016 IEEE First International Conference on Data Science in Cyberspace (DSC).