MODEL OF RELATIONSHIP OF FACTORS INFLUENCING THE PERFORMANCE OF THE FOOD AND BEVERAGE BUSINESS IN THAILAND

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Abstract

The purposes of the research entitled, "Model of relationship of factors influencing the performance of the food and beverage business in Thailand" were to study factor influencing business operational results of food and beverage industry in Thailand, the direct, indirect and overall influence of a causal relationship model and to ascertain the validity of developed model in comparison with the available empirical data of food and beverage industry operational results in Thailand. The relationship between developed model and empirical data of business operations of food and beverage industry in Thailand was also under the study. Total 300 section head and higher up of food and beverage industry were selected as research samples from the reliable stock listed companies. SPSS computerized program is engaged in analyzing and processing the collected questionnaires, having statistical significance 0.05. Data were analyzed using are Frequency, Percentage, Mean, and Standard Deviation or S.D., Confirmatory Factor Analysis, and Coefficient Correlation of research model with the empirical evidence.

The research findings suggest that changes in strategic pattern, operational model, technology and innovation had direct positive effect on the organization atmosphere and its operation, having statistical significant level .01. The dynamic environment and the competitive environment also displayed the direct positive influence over the organization atmosphere and the operational results, having the statistical significant level .01, whereas the organization atmosphere received overall influence from the business environment. Furthermore, the operational results also received the direct influence from business environment, changes in business through the organization atmosphere, having the calculated influence of 0.34 and 0.13 in which the statistical

significant level was at .01. This suggests other influence factors had influenced over the operation, for example, changes in business and business environment.

Keywords: correlation model, result of business operation, food and beverage business

Statement of research

The findings from the food and beverage business situation in the 3rd quarter 2016 reveal that the production and distribution of such products in Thailand has decreased as compared to same period last year. As the region suffered from the drought, causing the overall production reduced substantially, especially sugar, grains and starch. This is coupled with Thai fishing industry has strictly followed the New Fishery Law to rectify IUU Fishing situation that the European Union issuing yellow warning to Thailand in which the impact can be seen on the reduction of illegal fishing and in turn decreasing fish products and food exporting industry during the 3rd quarter 2016. This is also the direct result from drought and the reduction of raw materials, especially, sugar, rice, cassava and oil palm. Moreover, China as Thailand trade partner has not fully recovered from economic downfall, slow down the order from Thailand (Grassroots Research Center Government Saving Bank, 2017).

Nonetheless, the foods import in the 3rd quarter, 2016 increased from last year some period from raw materials shortages and insufficient fish product in the country leading to more import of raw materials, especially, fresh and freeze Tuna. The export and import of non-alcoholic beverage during the 3rd quarter, 2016 are increase from prior year same period as well, having the major export market in CLMV countries that required more import of non-alcoholic beverage from Thailand due to economic expansion (Grassroots Research Center Government Saving Bank, 2017). Then, the outlook for food and beverage industry during 2016 seems brighter by having the following support factors 1) State Promotion Policy such as the establishment of Food Inn polis and the setup of the economic zone along the border is ery likely to support the food and beverage industry expansion and 2) the economic and trade expansion among CLMV countries consistently caused more demand on consumption goods , especially food and beverage 3) The potential growth in tourism and heath care created the overall increase demand in food and beverage 4) the recovery of Thai shrimp production from EMS may increase the export on fresh prawn, freeze and processed prawn and 5) the United States of America has adjusted Thailand status from Tier 3 to Tier 2 (Watch list), improving image of products from Thailand (Grassroots Research Center Government Saving Bank, 2017) . Nonetheless, the risk factors that required close attention, namely, the economic recovery of China, Thailand

trade partner which is still fragile and may influence importing food and beverage to China. The GSP conditions from the European Union caused Thai export products paying tax at the new rate, causing Thai products price higher than other countries. The findings also reveal that the food and beverage businesses increase average income of 15% per year in the past five years which is considered higher than GDP Growth at average 4-6%, but the net profit is relatively low at 3-5 % in which the entrepreneurs must change their techniques by increasing incomes and reducing cost effectively. It is expected that in 2017, the net income and profit of food and beverage would expand in the same direction as the expansion in tourism sector that also support the expansion of food and beverage industry as well (Department of Business Development, 2017).

From various literature review and reviewing documents and texts, many investors were found investing in the food and beverage businesses from thinking that it was uncomplicated business to operate. As a matter of fact, it may be one of the popular businesses of this decade. Nonetheless, the record indicated that many new business entrants each year closed down and left the business suddenly, mainly from lower incomes than expected, high cost and inadequate reserve that eventually unable to burden the loss, especially the rising cost of raw materials and other related costs, coupling with increasing in operation costs.

The food and beverage business seems to generate "high income from daily sale, but the "profit" may be only small percent as compared to total sales. If the business owner spent sale amount carelessly, regardless of initial cost, the business may fail. Often, problems in the food and beverage business caused by the flexible sale amount in each time period. For example, foods seasonal sale is rather difficult to forecast due to influence from external factors such as, economic status, social and political as well as consumer preferences which affected incomes. As for solution to the problems, the entrepreneurs must adapt to changing in strategy to follow-up on the assessment on time. Because "personnel" are the most important element in the operation, organization must hire personnel with well knowledge and expertise to work with. Once the organization acquired competent personnel, next in line is to plan " good management" because management is the key of business operation.

As seen, the food and beverage business operation is required not only capital investment, but also the entrepreneur or owner must concentrate on leading the organization successfully to the set goal, especially during the fierce competition period. This is the time when the entrepreneurs need to assess own capacity to find strength , weakness that should be improved at all times to ensure the survival of business, and reaching the set goal in business operation effectively and efficiently.

From the aforementioned reasons and literature review, the researcher is interested in studying the Model of relationship of factors influencing the performance of the food and beverage business in Thailand.The research findings can be used as the basic data for improving and developing the

administrative procedures, thus making the operation in this area more effective and efficient. Moreover, the concerned agencies can adapt the research outcomes to set up policy at Microeconomic and Macroeconomic levels in order to increase competitive advantages among the entrepreneurs of food and beverage businesses effectively until achieving the efficiency in practice.

Research objective

1. To study factor influencing business operational results of food and beverage industry in Thailand.

2. To study the direct, indirect and overall influence of a causal relationship model influencing business operational outcomes of food and beverage industry in Thailand

3. To ascertain the validity of developed model in comparison with the empirical data of food and beverage industry operational results in Thailand.

4. To develop a causal relationship model influencing business operational outcomes of food and beverage industry in Thailand.

Research framework

There were four significant factors involved in the formulation research conceptual framework as follows:

1. Business modification base on the concept of Swapna & Raja (2012); Corbett (2015) with three sub-components comprised of modification in strategy, operation, technology and innovation.

2. Business environment employed the conceptual framework of Jansen et al.(2006) with two sub-components , namely dynamic environment and competitive environment.

3. Organization structure based on the theory of Stringer (2002) with six components, namely organizational structure, performance standard, job responsibility, recognition, support, and affiliation.

4. Operational results based on the concept of Kaplan & Norton. (1996) on Balanced Scorecard with four sub components, namely, financial, customers, internal business process, learning and growth.
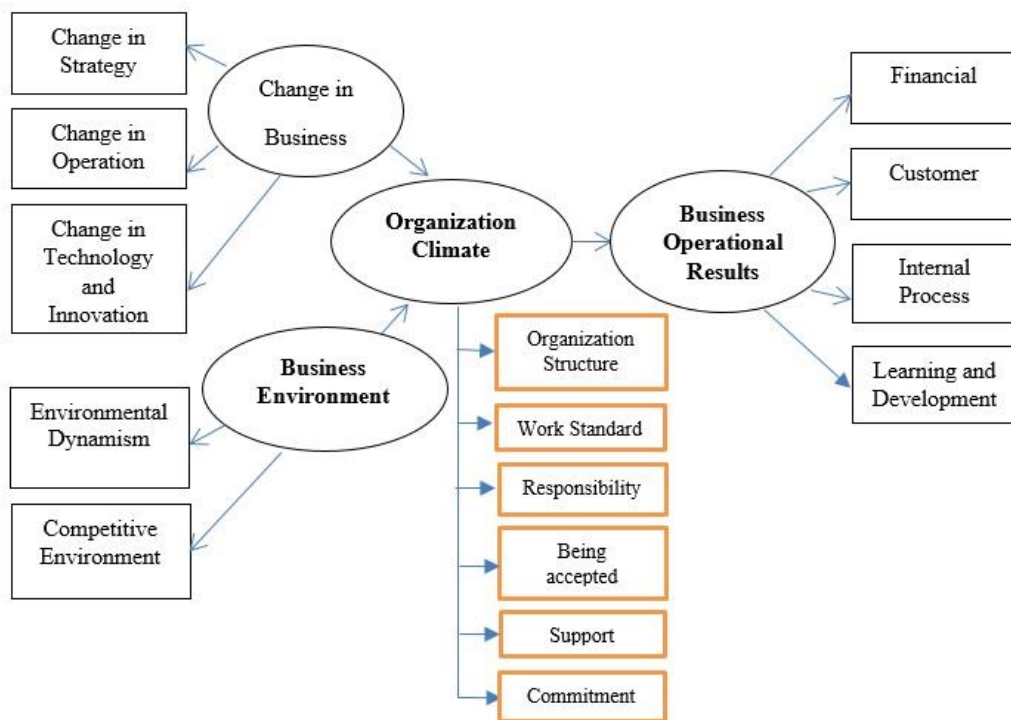
Figure 1 Conceptual framework "Model of relationship of factors influencing the performance of the food and beverage business in Thailand"

Concepts and relevant theories on business change

Karin Vey (2017) had interestingly described the organization abundant with sales support factors or factors related to productivity as having the advantages over others even with the personnel working in the same environment 5-10 years ago in comparison with the organization that fully trained personnel as well as implementing new working methods in the current operation.

Ranna Bhatt (2017) mentioned that human in the past ventured into trade from the need to feed the family by trading homemade products with other necessities. For example, during the Agricultural Era, man traded rice for pork. Soon, man has evolved into using machineries to aid production when the market demand exceeded production capacity. Nonetheless, the use of machineries from the Machinery Era up to now was not much different as seen from the saturation of technological growth at present. Most companies engage computerized system in the operations, including the use of Internet for communication and identical machineries in manufacturing products. Man at present had crossed over from the development era and technological investment to Human Capital Era. If the organization wants to create the

distinction, it must begin with changes in personnel section. Moreover, the concept of business change is the new definition that the entrepreneur must be aware of and carefully considered the area of change, usually involving new business approach to ease decision making in certain event that may lead to change in business. As one can see that the business structure is built from four significant components, namely, business strategies, business model, operational model and competency. According to Swapna & Raja (2012); Corbett (2015), change in business comprised of three sub components, namely, strategy, operational model, technology and innovation. Changes in these subcomponents had led to great impact on business survival and growth. Then, the business organization should prepare for abrupt changes as well as responding to the stimulus swiftly and accurately, both short and long term period, including the implementation of information technology to enhance efficiency in each operation based on the assigned business roles such as financial matters, marketing, operation and human resources. Each interesting discipline was incorporated into the Strategic Operations for improving and retaining the organization competitive ability. The technological adaption required knowledge, understanding and experiences in defining the harmonious practical direction between the organization structures, strategy and information technology in which all segments are complex and elaborate. Therefore, the executive is the key person leading the organization to success or failure. At present, information technology besides support effective operation, it helps the organization to define own strategy. If the executive is able to apply information technology appropriately with the operation, it is not only creating

a portfolio, but also leading to the organization effectiveness. Therefore, the researcher decided to apply the business concept of Swapna & Raja (2012); Corbett (2015) who mentioned three sub components involved with change in business, namely, strategy, operation, technology and innovation in this study.

Relevant concepts and theories on business environment

Jose Rodriguez Terceno (2017) gave the interest explanation of the Environment of Business as one of the social units that obstructed business independent existence. It is then absolutely necessary to be aware of the environmental factors that may affect business operation both positive and negative aspects. The business environment are divided into 2 groups as follows: (1) internal environment the controllable environmental factors within the organization such as, man, machinery, building, location, knowledge, other systems and (2) external environment is the uncontrollable factors. Nonetheless, these environmental factors have created significance impacts on the organization operation in which classified as (2.1) operating environment that directly impact the business and also impacted by the business such as , the government, community, raw material suppliers, competitors, customers, trade union, third party and Trade Association and general environment with extended boundary, but none of its impact directly affected the company, instead it may send the impact through the operation surrounding as well as influencing the long term business decision. These are

economy, social and political and technology. According to Wheel and Hunger (2004), business environment comprised of Internal Environment and External Environment which divided into Internal Environment) and (2) Task Environment. Meantime Sunee Vanthanakomol Silpujaru (2009) gave an interesting explanation on business environment that it may affect the process in defining the organization strategy and objective, business direction and risk, including the influence over the design and functions of information control system, communication system and tracking system. Internal environment is divided into three areas such as marketing, technique and finance, whereas the external environment is the uncontrollable factor that influence marketing system by creating business opportunity or threat and 3) Macro Environment. Furthermore, Jansen et al (2006) mentioned the business concept comprised of environmental dynamism and competitive environment. The environmental dynamism is unstable and often change reflecting the level of environmental dynamism, but still displaying the unpredictable characteristics under the environmental dynamism involving technological changes. Furthermore, the environmental dynamism makes the current products obsolete and urgently needs new products development. As for the competitive environment, it may reflect the fierce market competition among organizations through number of competitors and the competitive dimension. Business organization operating under fierce competition

would face severe pressure to increase work efficiency and productivity as well as reducing product price to compete with the competitors. Therefore, it is necessary for the organization to seek new technology and production methods to respond to the need of such organization. The aforementioned statement suggests many academic experts and researchers have given the directions and theories on business environment. The researcher is then applied many theories and concepts, particularly adapting the Behavioral Theory of the Firm by Jansen et al. (2006) that comprised of environmental dynamism and competitive environment in in this research.

Relevant concepts and theories on organization climate

Organization climate is a significant variable in the study of human organization as to link between the visible characters of organization such as structure, rules, leadership model, and performers' behavior. Organization climate plays important role on how one feeling toward performance as the clear reflection which influence on the performer behavior and attitude (Stringer, 2002). Yenen, V. Z., Öztürk, M. H., and Kaya, Ç. (2014) further commented that the organization climate was not only helping to identify employee's behavior in the organization, but also involved in forming expectation model among the organization members towards other components. The layout of members' expectation on the organization components helps members to form good attitude toward the

organization and maintain organization loyalty. Therefore, the organization climate should be the first and foremost concern if the executive desires to change or improve the organization because it reveals the organization culture from the past to present. The concept of Snape, E., & Redman, T. (2010) is coincided with Kaya, Ç. and Ceylan, B. (2014) opinions on each and every executive putting the emphasis on organization climate because it helps the executive planner making better decision. Besides being the proposal or response to satisfaction of practitioners, it helps to increase the organization efficiency in order to achieve the organization goal quicker. Steers & Porter (2002) mentioned the organization climate as the major variable to analyze individual work behavior, and the organization efficiency and effectiveness. Nonetheless, it may not be completely accurate if one failed to consider the internal environment that plays major role in defining members' attitudes and work behavior. Generally, the organization climate comprised of six significant components comprised of (1) Structure refers to the employee perception of the organization having good structure with clear explanation on employee roles and responsibilities. The organization structure should be concise and clearly identified each and every employee tasks and responsibilities as well as who is in authorize to make decision because a well-organized structure can motivate the employee to perform his task and (2) work standards make the employee realize that the

organization aims for employee's good performance in so that he could be proud working with high organization standards. This way the employee would constantly search for know how to improve his performance. Moreover, low standard reflects the employee's low expectation from work and (3) Responsibility involved the employee understanding the company trust and empowered him to carry on working independently without frequent supervision from the superior as well as fully aware of the consequences from his own performance under the set standards, whereas (4) being accepted is when a person realized that he would earn the reward from the organization for his good performance. By accepting, the individual expected to receive the reward from his good performance or punishment when he performed poorly. Nonetheless, low acceptance occurred when an employee performed well but had never received any reward and (5) support is defined as the personnel perceived members' trust and encouragement. High level of support is when the personnel learned that he is a part of efficient team work and the support is always available from the team members and supervisors. Moreover (6) commitment is defined as the personnel sense of pride for being a part of the organization and the commitment level to complete the task per set objective. Meantime, Snape, E., & Redman, T. (2010) concluded that the organization climate helping the members to identify expectation model including other components. Organization climate is also a good

determinant on attitude and satisfaction towards the organization. When dealing with the organization improvement, one needs to consider changing the organization climate first.

According to Peng, J. C., & Chiu, S. F. (2010), they stated that the organization climate has become the crucial factor for organization, executive and organization members. Therefore, the first and foremost factor required change is the Organization Climate which is coincided with the work of Snape, E., & Redman, T. (2010) , Therefore, the organization climate is not only crucial for executive and other organization members, but also motivating the members to perform and satisfy with the assigned tasks. If any organization focused in this area and adapted with the organization management to mix and match the current period, the organization would gain the flexibility that create work harmony between the employees and executives because both sides realized each other needs and satisfactions. Finally, the organization goal can be achieve effectively. Therefore, in this research, Stringer (2002) theory was employed with six components, namely, organization structure, work standard, work responsibility, being accepted, support and commitment.

Relevant concepts and theories one operational results

Likert (1977) had explained the Linking Pin Theory as comprised of (1) overlapping *work units* that would increase work efficiency as well as motivating members to work harder and (2) every organization unit employed work units in which the supervisor/manager has the task to create unity within the organization and (3) Plan and solve problems as a teamwork to involve team members in decision making so all members would satisfy with the outcome, leading to group bond and acceptance. In this Linking Pin Theory, the organization administrative function would emphasize on team work, participate in decision making, job satisfaction and executive role for the organization to operate effectively. Meantime, Gulick & Lydall (1973) the educational theorist on an administrative principles proposed the Strategic Management process for the executive in seven significant functions , namely, Planning, Organizing, Staffing, Directing, Coordinating, Reporting, and Budgeting, so called briefly as "POSDCORB". Meantime, Kaplan and Norton (1996) gave the interesting explanation that the Balanced Scorecard (BSC) is the system or an administrative process that based on KPI, a key mechanism. Kaplan and Norton gave the latest definition on the Balanced Scorecard " as the management tool leading to the Strategic Implementation based on the Measurement to help the organization members working toward same goal and alignment and focused on the success of the organization ". The concept of Balanced Scorecard invented by Professor Robert Kaplan at Harvard University and Dr. David Norton, the management consultant who had studied and surveyed the cause of USA stock

market downfall in 1987 and found that majority of USA companies relied on the financial indicator mainly. Therefore, both proposed the concept in organization assessment by considering the indictor in four Perspectives, instead of judging only one side. All four perspectives are Financial Perspective, Customer Perspective, Internal Process Perspective and Learning and Growth Perspective. After all, the Balanced Scorecard helps bringing the organization management to tangible practice because in preparation for Balanced Scorecard, one must start with the strategic process. These are the strategic procedures to derive at Strategic Themes and the making of Strategy Map which reveals the casual relationship of objectives under all four perspectives of Balanced scorecard (financial perspective, customer perspective, internal process perspective and learning and development perspective). These objectives must be agreeable and support the organization main vision, and strategic themes before identifying the indicator, purpose, plan, project, and objective of each aspect in order to complete the development process as well as the development of Corporate Scorecard. From the literature review, the researcher had adapted Balanced Scorecard Theory of Kaplan & Norton (1996) comprised of (1) Financial Perspective (2) Customer Perspective (3) Internal Process Perspective and (4) Learning and Development Perspective to use with this research.

Population

Research population comprised of the 23,317 section heads and higher up of 35 food and beverage related companies listed in the Stock Exchange of Thailand (SET 2017).

Research samples

Research samples were section heads and higher up of food and beverage related companies listed in the Stock Exchange of Thailand (SET 2017). LIS R EL was employed to seek appropriate sample size, including the use of Structural Equation Modeling (SEM). To define the sample proportion , the suggested Rule of Thump by Hair et.al (Hair, et al., 1998) was employed in which most statistical analysts on pluralism used 20 times variable. The researcher used 15 variables and the appropriate sample size of 30.The outcomes were applied in data analysis with Structural Equation Modeling (SEM) . Since numbers of population in each organization were uneven, the researcher applied Proportional Stratified Random Sampling on each level per total population. The final samples were 300 samples.

Data collection process

1. The researcher prepared a letter to request cooperation in collecting data from sample group through the questionnaires.

2. The questionnaires accompanied a requested letter to collect response in answering the questionnaires. The researcher self-administered and collected data and mailed some to the samples who had been working in the food and beverage business. In certain cases where the questionnaires had not been returned, the researcher would follow-up for the 2nd and 3rd time though various venues. For example, questionnaire sets with similar questions were sent with follow-up phone inquiry and follow-up manually to ensure the most completed data.

3. Total 300 set of returned questionnaires were subjected for analysis through the following steps:

1) Data validation was performed by the researcher checking on data accuracy and completion.

2) Data was coded by the researcher.

3) Data analysis was done with Computerize Statistical Program SPSS.

Data analysis

The finding based on the hypothesis and empirical data suggest that the outcomes of Model of relationship of factors influencing the performance of the food and beverage business in Thailand (direct, indirect and indirect influence) coincide with the empirical data as shown in Figure 2.
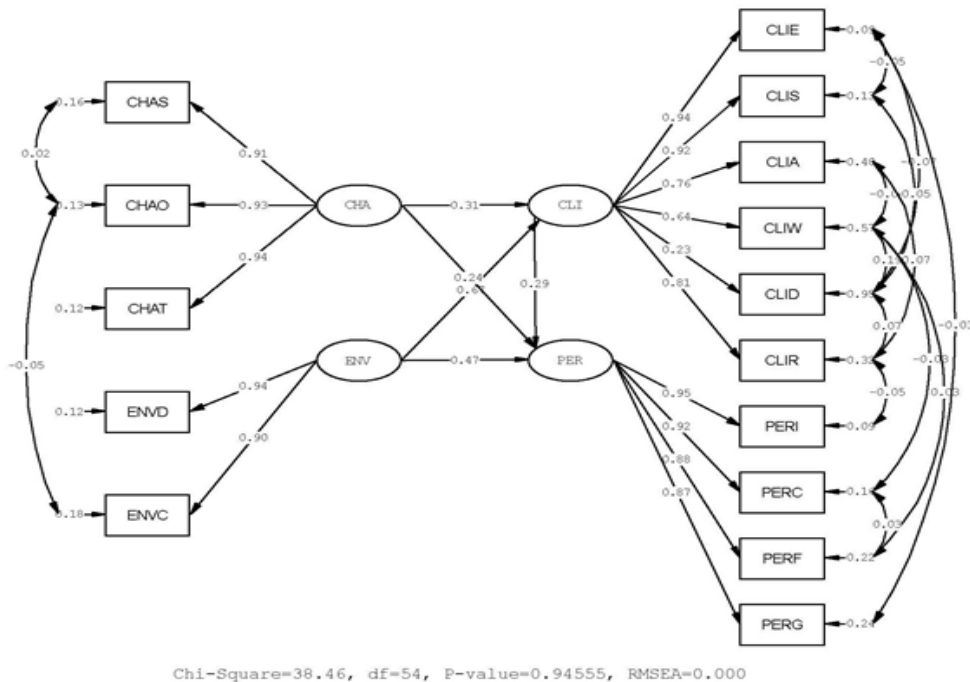

Chi-Square=38.46, df=54, P-value=0.94555, RMSEA=0.000

Figure 2 Analysis of Model of relationship of factors influencing the performance
of the food and beverage business in Thailand

To sum up the direct and indirect influence on variables:

1. Change in business has the direct positive influence on the organization climate and operation, having the direct influence 0.31 and 0.24, respectively with the Statistical Significance 0.01.

2. Change in business environment has the direct positive influence on the organization climate and operation, having the direct influence 0.67 and 0.47, respectively with the Statistical Significance 0.01.

3. Change in business has the direct positive influence on the organization climate and operation, having the direct influence 0.29, respectively with the statistical significance 0.01.

Results discussion

Summary of analysis results aimed for answering the research objectives as follows:

Objective No.1 To study factors affecting operation in the food and beverage business in Thailand

Due to limited working space for LISREL program, the researcher is unable to analyze the Confirmatory Factor Model based on 15 sub-components and 73 indicators in just one time. Therefore, the researcher decided to divide the analysis into 4 models by considering the relationships between sub-components and indicators

as well as selecting appropriate program for major analysis:

1) Business change model

Business change variables comprised of 3 components, namely, change in strategy, change in operation model and change in technology and innovation in which the researcher had validated correlations between all 3 components of work process in 3 pairs.

It was found that the variable correlation differed from zero with the statistical significant level .01 for all 3 pairs, which indicated extremely high correlation level, between 0.869-0.882. Analysis results of Matrix Correlation with Bartlett's Test of Sphericity yielded Bartlett's Test of Sphericity Chi-Square = 941.060, df = 3, p = 0.000 which was differed from zero with the statistical significant level .01. This suggests that the Matrix Correlation of observed variable was not Identity Matrix and the variables had enough correlations to assist in the analysis of components, whereas the index of Kaiser-Mayer-Olkin (KMO) = 0.778 indicated the appropriateness of variable for the component analysis.

The model analysis yielded Chi-Square = 0.00, df = 0, p = 1.00000, RMSEA = 0.000, GFI =1.00, AGFI = 1.00 which indicated that the business change model correlated with the empirical evidence.

After considering the sub-components of work process, the findings suggest 3 variables played significant part to indicate the organization atmosphere, arranging from the most to the least

significant. These are change in operation model, change in strategy and change in technology and innovation, respectively, having the component weighted equaled to 0.78, 0.73, 0.72, respectively with the co-variation of the business change indicator for 88, 89 and 86, respectively.

2) Business environment model

Business Environment variable are comprised of dynamic environment and competitive environment. The researcher had validated correlation between 2 variables of human capital. The findings suggest that the correlation of observed variables displayed differences from zero with statistical significant level .01 and all were highly correlated with each other equaled to 0.842.

The analysis of Metrix correlated with Bartlett's Test of Sphericity yielded Chi-Square = 467.202, df = 1, p = 0.000 which differed from zero with statistical significant level .01. Therefore, it suggests that the Matrix Correlation of variables is not Identity Matrix. The variables had ample correlation to analyze components and Kaiser-Mayer-Olkin (KMO) = 0.550 which suggested the appropriateness (KMO > 0.500) of variables to assist the component analysis

Analysis results yielded Chi-Square = 0.00, df = 0, p = 1.000, RMSEA = 0.000, GFI =1.00, AGFI = 1.00 which indicated the consistency with the empirical evidence. After considering the sub-components of human capital, the findings suggest 2 variables played

significant part to indicate the organization atmosphere, arranging from the most to the least significant. These are competitive environment, dynamic environment, respectively, having the component weighted equaled to 1.00, 1.00, respectively with the co-variation of the business environment indicator for 86 and 83, respectively.

3) Organization atmosphere model

Six variables of organization atmosphere are consisted of the organization structure, standard of work, work responsibility, gaining acceptance, receiving support, and commitment. The researcher had validated correlation between six variables of organization atmosphere. The findings suggest that the correlation variables displayed differences from zero with statistical significant level .01 and all 6 pairs were highly correlated with each other from 0.664 to 0.888. The analysis of Metrix correlated with Bartlett's Test of Sphericity yielded Chi-Square = 1699.012, df = 15, p = 0.000 which differed from zero with statistical significant level .01. Therefore, it suggests that the Matrix Correlation of variables is not Identity Matrix. The variables had ample correlation to analyze components and Kaiser-Mayer-Olkin (KMO) = 0.897 which suggested the appropriateness (KMO > 0.500) of variables to assist the component analysis. Analysis results yielded Chi-Square = 0.84, df = 5, p = 0.97428, RMSEA = 0.000, GFI =1.00, AGFI = 1.00 which indicated the consistency with the empirical evidence. After considering the sub-components of

business network all 15 pairs, the findings suggest 6 variables played significant part to indicate the organization atmosphere, arranging from the most to the least significant. These are receiving the support, commitment, organization structure, responsibility, work standard and being accepted, respectively, having the component weighted equaled to 0.69, 0.67, 0.63, 0.59, 0.53 and 0.44, respectively with the co-variation with the atmosphere indicator for 74, 74, 77, 99, 98 and 73, respectively.

4) The variables of operation component are comprised of 4 parts, namely, financial, customers, internal process, learning and developing. The researcher had validated the correlation between all 4 pairs of components and the results found correlations between 4 pairs of operation result components. The findings suggest the differences from zero with statistical significant level .01 for all 4 pairs with extremely high correlations, between 0.824-0.900

The analysis of Metrix correlated with Bartlett's Test of Sphericity yielded Chi-Square = 1407.712, df = 6, p = 0.000 which differed from zero with statistical significant level .01. Therefore, it suggests that the Matrix Correlation of observed variables is not Identity Matrix. The variables had ample correlation to analyze components and Kaiser-Mayer-Olkin (KMO) = 0.858 which suggested the appropriateness (KMO > 0.500) of variables to assist the component analysis.

Analysis results yielded Chi-Square = 0.79, df = 1, p = 0.3415, RMSEA =

0.000, GFI =1.00, AGFI = 0.99 which indicated that operational results measurement had the goodness to fit with the empirical evidence. After considering the operational results for all 4 pairs, the findings suggest 4 variables played significant part to indicate the organization atmosphere, arranging from the most to the least significant. These are internal process , financial, customers, learning and developing, respectively, having the component weighted equaled to 0e.70, 0.70, 0.69 and 0.68, respectively with the variations of indicators on technological competent for 87, 84, 88 and 79, 99, 98 and 73, respectively.

Objective No. 2 To study the direct and indirect influence of correlated factors over operational results in the food and beverage businesses of Thailand. The operational results received the highest overall influence form change in business and environment, having influence on both as equaled as 0.49. Next is the organization atmosphere with the influence value 0.47, having the statistical significant level .01

After considering the direct influence, the findings suggest that the organization atmosphere had received the highest influence from the business environment, with the influence value.71, followed by change in business, with the influence value 0.28 and the operational results received the highest direct influence equaled to 0.47, with change in business and business environment with influence values of 0.36 and 0.16, having the statistical significant level .01.

After considering the indirect influence, the findings suggest that the organizational results had received the highest indirect influence from the business environment, through the organization atmosphere, with the influence value.34, followed by receiving indirect influence from change in business, through the organization atmosphere, with the influence value 0.13, having the statistical significant level .01. Considering both direct and indirect influence over such variables, summary could be done as follows:

(1) Change in business had the direct positive influence over the organization atmosphere with the influence value 0.28, having the statistical significant level .01 (2) Change in business had the direct positive influence over the operational result by having identical influence value of .01 (3) the business environment had the positive influence over the organization atmosphere, with the influence value 0.71, having the statistical significant level .01 and (4) the business environment had the positive influence over the operational results, with the influence value 0.16, having the statistical significant level .01 (5) Organization atmosphere had the direct positive influence on the operational results equaled to 0.47, having the statistical significant level .01. Furthermore, the operational results received the highest level of indirect influence from business environment and change in business through the organization atmosphere with influence value of 0.34 and 0.13, respectively, having the statistical significant level .01.

Objective No. 3 In order to validate GFI of the constructed model with the empirical evidence from the operational results of food and beverage business in Thailand.

Business environment, organization atmosphere and operation results with Maximum Likelihood and the computer program LISREL 8.72 in order to compare GFI between the developed model and the empirical evidence. The researcher had considered the statistical value comprised of Chi-Square, χ^2/df, CFI, GFI, AGFI, RMSEA and SRMR in which the initial analysis results indicated that Goodness of – fit index was inconsistent and disagreed with the empirical evidence or it had not met the set criteria by considering the following values χ^2 = 337.16, df = 84, p-value = 0.000, CFI = 0.99, GFI = 0.87, AGFI = 0.81, RMSEA = 0.100 and SRMR= 0.022. The researcher had conducted Model Modification, using Model Modification Indices (MI) and proceeding with adapting parameter to be more lenient with the initial agreement, allowing the miscalculation in correlations until the GFI agreed with the empirical data. The details of Model Modification to match Model fit to match the empirical data indicated in the first model modification improvement in correlations between cli6 and cli5, that is χ^2 reduced from 337.16 to 270.20 and RMSEA was reduced as well from 0.100 to 0.087. This shows that the approach on model modification to achieve the goodness to fit with the empirical evidence worked quite well and had not disturbed the concepts and

theories in the research because the modification aimed at the miscalculation of empirical evidence standard instead of changing the correlation direction between variables in the model.

After considering the GFI of model, the findings suggest model had goodness to fit with the empirical evidence, having GFI for 6 index equaled to χ^2/df = 0.839, CFI = 1.00, GFI = 0.98, AGFI = 0.96, RMSEA = 0.000 and SRMR = 0.0095. To conclude, the Structural Equation Modeling (SEM) had GFI with the empirical evidence.

Research outcomes suggest the following findings:

There are four significant components influencing business operational results of food and beverage industry in Thailand, namely, change in business, business environment, and business climate, including business operation. The analysis results also reveal that the constructed model is coincided with the empirical evidence and contained all statistical significance. Change in business has three sub-components, namely, strategies, operation and technology an innovation. As for business environment, there are two sub components, namely, the environmental dynamism and the competitive environment. For the organization climate, there are six subcomponents as follows: structure, standards, responsibility, being accepted, support, and commitment. As for the operational results, there are four sub components as follows: Finance, customer, learning and development. The internal process suggest that when the executive practiced according to the principles of

major and minor components, these would influence the performance of the food and beverage business in Thailand.

This study employed the theories related the model of relationship of factors influencing the performance of the food and beverage business in Thailand. The components of the model found matching various concepts and theories under the study. The result analysis suggests three sub components involved, namely, change in business, change in operation and change in technology and innovation. Regarding the business environment, there are two sub components, namely, environmental dynamism, and competitive environment. The organization climate comprised of six components as follows: structure, standards responsibility, being accepted, support, and commitment. As for the operation, four sub components are comprised of financial aspect, customer, learning and development, internal process which had coincided with the empirical evidence. This concept is coincided with the work of Patcharapun Buddhakarn (2011) on problems and threats in the organization management with Balanced Scorecard by the Bangkok Revenue Office Region 18. The research findings suggest that the supervisor is the key to data analysis with Balanced Scorecard. The analysis techniques are divided into the organization analysis, vision development, defining perspectives and objective, preparing strategic plan, defining KPI and task planning, including the list of factors causing problems and appropriate solution to problems such as organization analysis,

control measures and monitoring prior to tax collection affecting servicing and defining KPI that based on the operational tenure so that the primary level personnel could understand thoroughly. This concept is coincided with the research of Pakphoom Nunpreecha (2012) who studied factors related to the operation efficiency based on the Balanced Scorecard concept: A case study of Community Organizations Development Institute (Public Organization). The research result suggest two indicator involved (1) Office of the Public Sector Development Commission and (2) Specific Institute for institutional performance. There are three phases in the process, namely (1) Annual organization strategy plan (2) Office of the Public Sector Development Commission indicator and (3) work indicator in which these factors related to the operation efficiency that also support the operation based on the concept of Balanced Scorecard in seven factors as follows: leader, organization executive policies, data management, relationship and communication between departments and follow-up, developing personnel competency and factors as the treats to operation efficiency. This is based on the concept of Balanced Scorecard comprised of seven factors, namely, misunderstanding personnel concern, and complexity in preparation for performance indicator, setting up and timing, personnel faith on own supervisor, identifying indicator by Office of The Public Sector Development Commission and personnel attitude in which all of these factors involved and related the

operation efficiency. This concept is coincided with the research of Nichanun Junsuaebtaew (2007) on the implementation of Balanced Scorecard in the Public Sector: A Comparative Study of the Local Agency at Phitsanulok Province. The research finding suggest that the implementation of BSC in both organizations required preliminary study of organization detail prior to brainstorming in order to prepare the organization strategy by allowing the outsiders and the internal staff to participate in plan preparation. Nonetheless, problems still occurred from the implementation of BSC in both organizations.

Recommendations

Further implementation for benefit maximization

The findings from this research suggest that the model of relationship of influence factors on the performance of the food and beverage business in Thailand can be used as the organization development direction for the executive to apply with appropriate context and situation.

Change in Business: The organization executive should be aware of changes in strategy, ology and operation, technology and innovation, aiming at improving the operational performance.

Business Environment: The organization executive should focus on speeding productivity in order to response to the customers' demand

faster than the competitor as well as keeping up with change in business continuously due to frequent change in product demand and service, including the executive awareness of price competition among suppliers.

Organization Climate: The organization executive should establish work policies and direction influencing personnel behavior as the crucial factor to promote team work.

Operational Results: The organization executive should focus on keeping up with financial matters, servicing customers, internal process, learning and development as well as effective resource management, aiming to increase profits. Good organization management also helps most personnel generating incomes and increasing sales. Personnel must be taught to gain the customers' satisfaction so that they would return to repurchase merchandise and service as well as maintain brand loyalty. Furthermore, the accelerated production process should help the management responding better to the customer demand than the competitor, including diversified products and services available. The well-organized procedures and production process could lead the organization to successful operation.

Recommendation for next researches

1) In the next study, other factors affecting the performance of the food and beverage business in Thailand such as quality of working life, organizational commitment or official rules and regulations and other related factors.

2) There should be the research on model of relationship of factors influencing the performance of other businesses throughout the country in order to test invariance of the developed model.

3) The model of relationship of factors influencing the performance of other industrial groups so that the outcomes could be used as the direction to improve the operation.

4) Ethnographic Delphi Futures Research (EDFR) should be applied in the study of model factors affecting the future business because EDFR is the research method that used the past fact to apply with the present problem. It is the technique to create a future image from the experts' consensus as well as assessing the present situation and impacts on each context, ready to cope with the future event and plan future business direction.

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