

DAZH Mobile Application Concept Testing: A Purchase Intention of Café Business Entrepreneurs in Nakhon Ratchasima Province, Thailand

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ABSTRACT

The objective of this research is to find the raw materials purchasing behavior variables which have effect on purchasing behaviors of entrepreneurs in Nakhon Ratchasima Province, Thailand. The raw material purchasing behaviors have been identified in 5 variables, business size, business model, business duration, number of employees and estimated income. The research found that the initial investment of more than 24,000 USD is 47.7 percent, the initial investment of 3,030-24,000 USD is 34.1 percent and the initial investment of 1,000-3,000 USD is 18.2 percent. Entrepreneurs who have their own brands is 81.8 percent and franchisee is 18.2 percent. The business duration of 1-3 years is 34.1 percent and of more than 5 years is 25.0 percent. The number of employees of 1-3 employees is 60.5 percent and of 4-6 employees is 23.7 percent. For those with estimated monthly income less than 3,000 USD is 43.2 percent and for those with income of 3,001-6,000 USD is 36.4 percent. The café business entrepreneurs have an intention to purchase DAZE mobile application. The entrepreneurs found that the DAZE mobile application will give them purchasing time reduction, cost reduction and raw materials quality improvement respectively. The service charge acceptable rate is 1.01-3.00 USD/time which is considered acceptable for café business entrepreneurs. If the service charge rate is going high, it will directly affect their production costs.

Keywords: Concept testing; purchase intentions; purchasing behaviors; entrepreneurs

Introduction

Café businesses in Thailand have a value of about 308 Million USD in 2018 and the growth rate is 2.3 % annually. Café business consists of small and medium entrepreneurs who are considered as independent business players. The café businesses have limited branches as they are operating businesses by themselves. However, if the entry barriers of café business are low, many new entries will enter café businesses. The growth rate of café business is significantly increasing due to the changes of consumer behavior that comes from new technology and internet developments.

Coffee businesses in Thailand are still growing which is caused by the changes of consumer behaviors. The coffee business entrepreneurs are located in both big cities and small cities which makes Thai coffee businesses still grow. The tendency of new generation coffee consumption also plays a key role for the growth of coffee business. The coffee business operators are small business entrepreneurs as they are located in small cities.

Raw material purchasing is the main problem of café business entrepreneurs as they are facing the difficulty on inventory management and fresh raw material supplies. The potential mobile application is really needed by café business entrepreneurs because it will help them on raw material demand and supply tradeoffs. Entrepreneurs have to balance of their need to maintain an adequate raw materials inventory, pose to keep raw materials costs and keep the quality. The high raw material holding levels are related with logistics and purchasing planning that directly has effect on cost management.

The DAZE mobile application has been developed by 2 entrepreneurial students who are incubated at Student Entrepreneurship Development Academy (SEDA), Suranaree University of Technology. As the raw material purchasing job is quite difficult for café business entrepreneurs, the DAZE mobile application was initiated from the café business requirements and the needs for raw material purchasing which required on time management and inventory management issues.

The functional objective of DAZE mobile application is focusing on the raw material purchasing behavior of café business entrepreneurs who need the raw materials for their product productions. DAZE mobile application works as a mediator for raw material suppliers and café business entrepreneurs. The service charge will be applied on both raw material suppliers and café business entrepreneurs and the service rate is yet to be identified.

DAZE mobile application concept testing is the next step of new product development which comes from the idea generation and prototype creation steps. The concept testing about purchase intention of café business entrepreneurs is testing on the possibility of DAZE mobile application commercialization in the marketplace. The concept testing is focusing on café business requirements of raw material

purchasing, purchasing behaviors, and demands for raw material. Finally, it will demonstrate the possibility of DAZE mobile application for commercialization.

Literature Reviews

Business size

Raw material purchasing is considered as one activity of supply chain management. The problem in optimizing the supply chain is caused by the objective of cost minimization and the selling opportunity maximization. A production gives the upper and lower of inventory levels of materials keeping. The purchasing in a lot of sizes can influence the cash flow management and the optimal value of economic order quantity which provides the effective cost management (Gyeongbeom & Gintaras, 2018). In Egypt, microenterprises are lack in large investment inventories and raw materials holding and they are willing to invest in irreversible investments such as equipment. The challenges of introduction an innovative insurance products are particularly in the second approaches as the microenterprises have a little insurance exposure (Groh & McKenzie, 2016). A careful planning which has a close work with other functions, has a compressed transit times, raw materials inventory level reduction and finished good reduction. For maximizing production time and for meeting the customer needs, the manufactures adapt the JIT practices to their logistics operations by using the effective communication with suppliers and management systems (Bradley, 1993).

Business model

Many studies have proposed and evaluated the positive link between customer loyalty and purchasing behavior, the customer develops retail shop loyalty, and it extremely creates the positive link between loyalty and purchasing intention. The emergence of social networking has dramatically changed the customer interaction with others and creates social ecommerce (Wang, Keng-Jung, & Yen, 2015). Social commerce, a combination of customer-oriented technologies and commercial features, has an influence on e-commerce and providing substantial economic benefits. The social ecommerce, customer experience and learning and training constructs have a positive effect on customer's perceptions of e-commerce using which enhancing customer's trust and purchasing intention (Hajli, Wang,

Tajvidi, & Hajli, 2017). The demand-side strategy and the business model concept should jointly develop a better understanding of purchasing strategy formulating by relying on the distinctive competencies from each concept. The effective creation of both concepts improves the value propositions and business models which considered as a resource-based strategy (Priem, Wenzel, & Koch, 2018). Word-of mouth strategy is a crucial strategy for business model success because this strategy boost new customer recruitments and strengthen the loyalty of existing customers. The customer behavior in e-commerce and the value applying for individual retention strategies have more benefits than generic strategies or customer acquisition strategies which create long term profitability (Ballestar, Grau-Carles, & Sainz, 2018).

Business duration

Most of the business organizations aspire to running business for a long time, but only some of them manage to survive for a few years. The business duration is a clear indicator of business success. The new process development is considering as an innovation that has a positive influence to the profitability of business survival. The number of product patents have a high survival profitability for manufacturing organizations and the organizational size seems to increase the business duration (Ortiz-Villajos & Sotoca, 2018). The internet helps purchasers and suppliers to have a reliable, flexible and cost reduction. There is a need to accept the internet as a tool for effective communication and information sources for purchasers and suppliers. The perceived internet skills and suppliers support have a huge effect on effective communication and the communication convenience has a direct effect on industrial purchasing. The purchaser and supplier need to enhance communication convenience to encourage industrial purchasers to adopt the internet in their purchasing activities (Shook & Siohong, 2017). The industrial purchasing process of innovative products has a various decision processes as the purchasers evaluate the attractiveness of producers' offerings. The stage of purchasing process mainly considers on value proposition. Manufactures should focus on distinctive product and supplier-related value elements which improves purchasing processes (Lindgreen, Antico, Palmer, & Tim, 2009).

Number of employees

Generally, small and medium enterprises (SMEs) have the disadvantage of resource utilization as they have a limit investment funds. The size of small and medium enterprises is measured by employee number, has an influence on their resources utilizations (Flynn, McKeivitt, & Davis, 2015). The purchasing complexity level is widely between organizations even within specific industries. The effective purchasing organizations tend to have more people working in the purchasing activities than low purchasing development organizations. They have a positive relationship between the level of purchasing leverage and the level of purchasing development in small and medium enterprises (SMEs) (Adams, 1979). The organizations are more successful with their total quality management (TQM) efforts, will have a purchasing personal who shows a greater sense of empowerment than organizations with less successful total quality management efforts. The successful organizations emphasize on personal performance evaluations more than less successful organizations (Carter, Smeltzer, Larry, & Narasimhan, 2000).

Estimated monthly income

Purchasing decision is the process that leads the customer from identifying a need, options and specific product choosing. Purchasing decision includes many aspects such as internal factors perception, attitude, knowledge and personal income (Salem, 2018). For sustainable growth of local food, it is considerable to establish a suitable price system to meet customers' needs. The demographic and income factors have an importance in purchasing intention of local food. The high income purchasers tend to buy the high quality and price of local food that emphasized on food quality (Joon-Ho & Seonghuyk, 2016). Young consumers prefer online shopping due to low price, convenience and more choices. Monthly income and attitudes have a significant influence on online shopping behavior (Simanjuntak & Musyifah, 2016).

Methodology

This is an exploratory research which focuses on the key elements of raw materials purchasing behavior and purchasing intention. The research has been explored to the degree in which each key element of raw materials purchasing

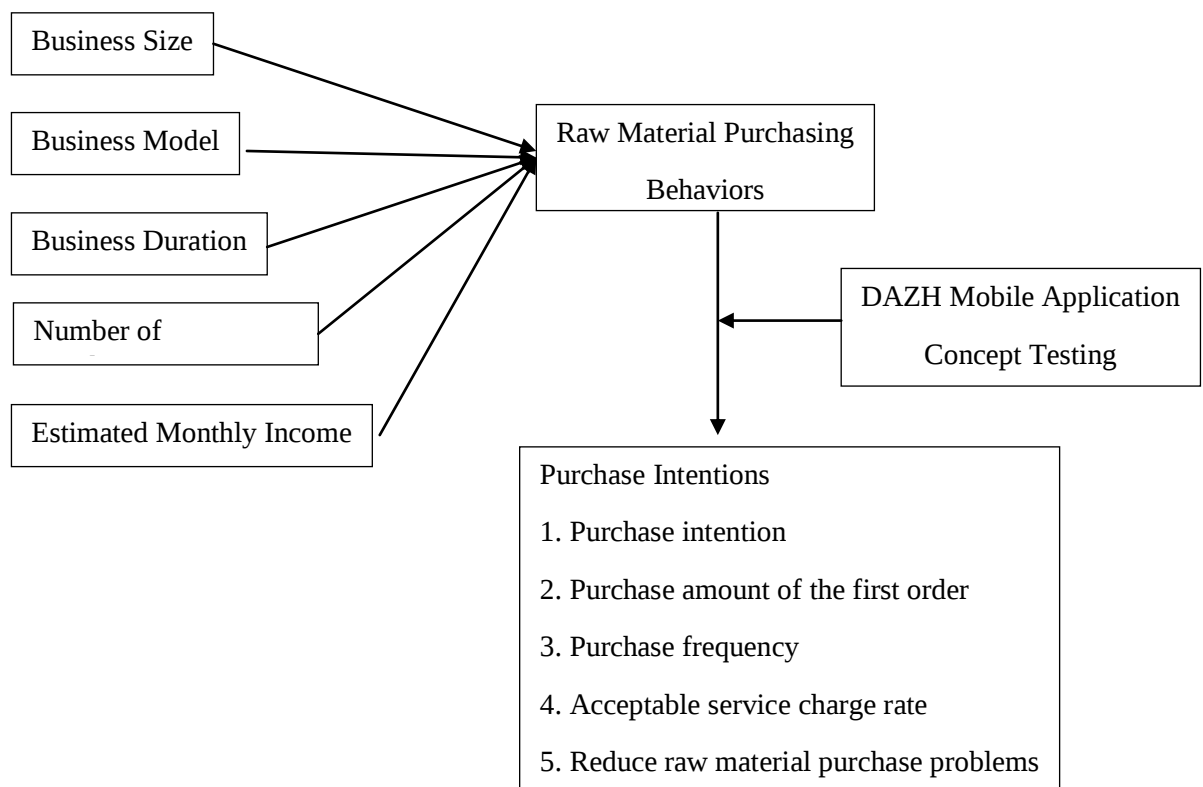
behavior and purchasing intention has an impact on DAZE mobile application acceptance.

Research has been applied by quantitative methods by using questionnaires for qualitative contextual tools. A secondary data have been taken on literature's review and have been reconfirmed of research finding.

Research process were started with a literature reviews. Based on the literature review, a parameter measurement of key success related factors was created, which needed to consult with supervisors and experts, before starting conducting the initial surveys with the entrepreneurs. The measures were certainly applied to the results of the final survey version. The survey results were analyzed by using a mean and SD model. The conclusions were drawn from the study's findings.

The exploratory research was focus on 44 café business entrepreneurs who are currently doing the café business by using the final questionnaires. The questionnaires were separated in 3 parts which depended on the research parameter measurements.

Conceptual Framework



Based on the conceptual framework of this study, the 5 independent variables have an influence on raw materials purchasing behavior. The DAZE mobile application concept testing will measure the purchase intentions of café business entrepreneurs.

Results

Table 1 The percentage of variables for raw materials purchasing behavior

Variable	Number entrepreneurs	Percentage
Business Size		
1. Initial investment 1,000-3,000 USD	8	18.2
2. Initial investment 3,030-24,000 USD	15	34.1
3. Initial investment more than 24,000 USD	21	47.7
Business Format		
1. Owner brand	36	81.8
2. Franchisee	8	18.2
Business Duration		
1. Less than 1 year	8	18.2
2. Duration 1-3 years	15	34.1
3. Duration 3-5 years	10	22.7
4. More than 5 years	11	25.0
Number of Employees		
1. 1-3 Employees	23	60.5
2. 4-6 Employees	9	23.7
3. 7-9 Employees	3	7.9
4. More than 10 Employees	3	7.9
Estimated Monthly Income		
1. Less than 3,000 USD	19	43.2
2. 3,001-6,000 USD	16	36.4
3. 6,001-9,000 USD	5	11.4
4. More than 9,000 USD	4	9.1

From Table 1, the results from 44 café business entrepreneurs' survey found that in terms of business size, the number of café business entrepreneurs who have an initial investment of more than 24,000 USD is 2, or 47.7 percent. The number of those with initial investment of 3,030-24,000 USD is 15, or 34.1 percent. While the number of those with initial investment of 1,000-3,000 USD is 8, or 18.2 percent. In terms of business format, the number of café business entrepreneurs who have their own brand is 36, or 81.8 percent. While the number of those who have franchise is 8, or 18.2 percent. In terms of business duration, the number of café business entrepreneurs who have a business duration of 1-3 years is 15, or 34.1 percent. The number of those who have business duration of more than 5 years is 11, or 25.0 percent. Those who have business duration of 3-5 years is 10, or 22.7 percent. Lastly, those who have business duration of less than 1 year is 8, or 18.2 percent. In terms of the number of employees, the number of café business entrepreneurs who have 1-3 employees is 23, or 60.5 percent. The number of those who have 4-6 employees is 9, or 23.7 percent. The number of those who have 7-9 or more than 10 employees is 3 and 3 each. In terms of the estimated monthly income, the number of café business entrepreneurs who have an estimated monthly income of less than 3,000 USD is 19, or 43.2 percent. The number of those with estimated monthly income of 3,001-6,000 USD is 16, or 36.4 percent. The number of those with estimated monthly income of 6,001-9,000 USD is 5, or 11.4 percent. Lastly, the number of those with estimated monthly income of more than 9,000 USD is 4, or 9.1 percent.

Table 2 DAZE mobile application purchase intention of café Business Entrepreneurs

Variable	Number entrepreneurs	Percentage
Purchase Intention		
1. Intention	30	68.2
2. Less intention	14	31.8
Purchase Amount of the First Order		
1. Less than 60 USD	18	40.9
2. 60.1-150 USD	8	18.2
3. Do not fix	18	40.9

Purchase Frequency Per Week		
1. 1-2 Times	11	25
2. 3-6 Times	16	36.4
3. Uncertain	17	38.6
Acceptable Service Charge Rate		
1.0.30-1.00 USD/Time	9	20.5
2.1.01-3.00 USD/Time	21	47.7
3. More than 3.01 USD/Time	14	31.8
Reduce Raw Material Purchasing Problems		
1. Purchasing time reduction	19	43.2
2. Cost reduction	15	34.0
3. Raw materials quality improvement	10	22.8

Table 2 shows the DAZE mobile application purchase intentions of café business entrepreneurs. The results show that the number of café business entrepreneurs who have a purchase intention is 30, or 68.2 percent. The number of those with less purchase intention is 14, or 31.8 percent. In terms of the purchase amount of the first order, the number of café business entrepreneurs who have a purchase amount of the first order of less than 60 USD and who do not fix the purchase amount are equal in 18 entrepreneurs, or 40.9 percent. The number of those with purchase amount of 60.1-150 USD is 8 entrepreneurs, or 18.2 percent. In terms of the purchase frequency per week, the number of café business entrepreneurs who have an uncertain purchase time is 17 entrepreneurs, or 38.6 percent, the number of those with 3-6 purchase times a week is 16 entrepreneurs, or 36.4 percent, and the number of those with 1-2 purchase time in a week is 11 entrepreneurs, 25 percent. In terms of acceptable service charge rate, the number of café business entrepreneurs who have an acceptable service charge rate of 1.01-3.00 USD/time is 21 entrepreneurs, or 47.7percent, more than 3.01 USD/time is 14 entrepreneurs, or 31.8 percent, and 0.30-1.00 USD/time is 9 entrepreneurs, or 20.5 percent. In terms of reduce raw materials purchasing problems, the number of café business entrepreneurs who have a purchasing time reduction is 19 entrepreneurs, or 43.2

percent, cost reduction is 15 entrepreneurs, or 34.0 percent, and raw materials quality improvement is 10 entrepreneurs, or 22.8 percent.

Conclusions and Discussions

Raw material purchasing behaviors depend on the business size, business format, business duration, number of employees and estimated monthly income variables. Since the production gives the upper and lower inventory levels then it is influenced by the business size. The purchasing of lot size is also influenced by cash flow management and the optimization of effective cost management (Groh & McKenzie, 2016). Business model has an influential factor for purchasing behavior as the demand side strategy and business concept should jointly develop a better understanding of purchasing strategy (Hajli, Wang, Tajvidi, & Hajli, 2017). Business duration is a clear indicator of business. Business duration depends on the new business process development which creates an innovation and positive influence to profitability. The number of employees also has an influence on raw material purchasing behaviors. Generally, small and medium enterprises (SMEs) have the disadvantage of resource utilization as they have a limited investment funds (Flynn, McKevitt, & Davis, 2015). Estimated monthly income has a direct effect on raw material purchasing behavior as the purchasing decision is the process that leads the customer from identifying the needs, the options and specific product choosing. Purchasing decision includes many aspects such as internal factors perception, attitude, knowledge and personal income (Salem, 2018).

Café business entrepreneurs have an intention of purchasing DAZE mobile application. The entrepreneurs found that the DAZE mobile application will give them the benefits on the purchasing time reduction, cost reduction and raw materials quality improvement respectively. The service charge acceptable rate is 1.01-3.00 USD/time which is considered acceptable for café business entrepreneurs. If the service charge rate is high, it will directly affect their production costs.

The recommendation for DAZE mobile application is going to be the next step of new product development cycle by going to the soft launch with selected café business entrepreneurs. The feedback from the a soft launch will be used to develop DAZE mobile application to fit with the customer needs.

References

- Adams, J. (1979). *An empirical study on the state of the purchasing function within small and medium sized business enterprises*. Washington, D.C.: ProQuest Information and Learning Company.
- Ballestar, M., Grau-Carles, P., & Sainz, J. (2018). Customer segmentation in e-commerce: Application to the cashback business model. *Journal of Business Research*, 88, 407-414.
- Bradley, P. (1993). Shipping high value goods: Bose, carriers squeeze inventory to byte size. *Purchasing*, 114, 43.
- Carter, J., Smeltzer, R., Larry, R., & Narasimhan, R. (2000). Human resource management within purchasing management: Its relationship to Total Quality Management success. *Journal of Supply Chain Management*, 36 (2), 52-62.
- Flynn, A., McKevitt, D., & Davis, P. (2015). The impact of size on small and medium-sized enterprise public sector tendering. *International Small Business Journal: Researching Entrepreneurship*, 33 (4), 443-461.
- Groh, M., & McKenzie, D. (2016). Macroinsurance for microenterprises: A randomized experiment in post-revolution Egypt. *Journal of Development Economics*, 118, 13-25.
- Gyeongbeom, Y., & Gintaras, R. (2018). Optimal design of Batch-Storage network considering ownership. *American Institute of Chemical Engineers*, 64 (7), 2418-2425.
- Hajli, N., Wang, Y., Tajvidi, M., & Hajli, S. (2017). People, technologies and organizations interactions in social ecommerce era. *IEEE Transactions on Engineering Management*, 6 (4), 594-604.
- Joon-Ho, C., & Seonghuyk, H. (2016). A study on the effects of selection attributes for agricultural products on using local food store. *Journal of Distribution Science*, 14(4), 117-125.
- Lindgreen, A., Antiocho, M., Palmer, R., & Tim, H. (2009). High-tech, innovative products: identifying and meeting business customers' value needs. *The Journal of Business & Industrial Marketing*, 24 (3/4), 182-197.
- Ortiz-Villajos, J., & Sotoca, S. (2018). Innovation and business survival: A long-term approach. *Research Policy*, 47 (8), 1418-1436.

- Priem, R., Wenzel, M., & Koch, J. (2018). Demand-side strategy and business models: Putting value creation for consumers center stage. *Long Range Planning*, 51, 22-31.
- Salem, M. (2018). Effects of perfume packaging on basque female consumers purchase decision in Spain. *Management Decision*, 56 (8), 1748-1768.
- Shook, C. M., & Siohong, T. (2017). Determinant factors of industrial purchasing personal's adoption of internet for business purchasing related activities. *LogForum*, 13 (3), 285-299.
- Simanjuntak, M., & Musyifah, I. (2016). Online shopping behavior on generation Y in Indonesia. *Global Business & Finance Review*, 21(1), 33-45.
- Wang, T., Keng-Jung, R., & Yen, D. (2015). Influence of customer identification on online usage and purchasing behaviors in social commerce. *International Journal of Human-Computer Interaction*, 31, 805-814.