CRITICAL SOCIOCULTURAL FACTORS AFFECTING PHARMACEUTICAL PURCHASING DECISION: THE CASEOF EGIS COMPANY, VIETNAM

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ABSTRACT
Egis Pharmaceutical Private Limited Company (short name as Egis) is leading multinational pharmaceutical company with headquarter located in Budapest, Hungary. In Vietnam, Egis has been in top 83 biggest manufacturers have supplied drugs to treatment establishment and drugstores, shared 0.33% of total Vietnam pharma market size in value (Anon., 2019). However, Egis business performance in Vietnam has been under expectation last 2 years which its growth was significantly negative in value. That circumstances put Egis management team in Vietnam to face with a lot of challenges. Well comprehending the buying behavior of pharmaceutical consumers generally and Egis OTC products' as specific case, is the crucial basis for their management team's business strategies and plans. This research affords to investigate especially critical sociocultural factors affecting pharmaceutical purchasing decision conducted from September 10th to October 30th, 2021.and take relevant conclusions as well as give valuable advices to Egis marketing and business managing team. It should be a high attempt to its reader to provide a significant knowledge regarding the different sociocultural factors that influence on pharmaceutical purchasing decision of the consumers. Besides, it will also help the management people in any organization and Egis company in Vietnam specially to understand about these social and cultural factors that impact on the customers' attention towards company products.

Key words: Egis, pharmaceutical, purchasing decision, sociocultural factors.

I. INTRODUCTION

According to IQVIA report in May 2021 (Anon., 2021), Vietnam pharmaceutical market has been growing
which its value increased from USD3.239 billion in 2016 to USD4.009 billion in 2020, achieving CAGR of last
5-year duration equal to 5.5% during 2016 to 2020. It has been ranked in top 13 fastest growing pharma market
of the world. However, the growth rate of this industry in 2020 slowed down due to negative impact of Covid-
19 pandemic. In overall, retail sector including drugstores, clinics and agencies shared about 30% while hospital contributed dominantly with 70% of Vietnam pharmaceutical market total in value in last 5 years.

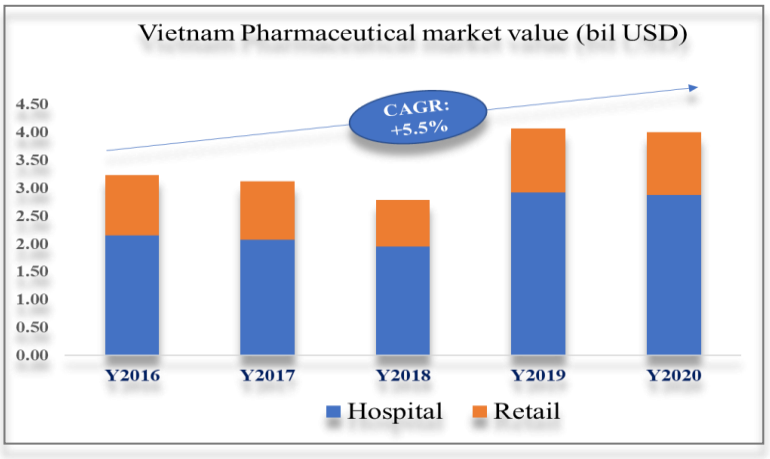

Figure 1.1. Vietnam Pharmaceutical market value

Source: IQVIA report in May 2021

In this IQVIA report, it shows top 3 therapeutic areas leading in contribution percentage of market total in value which are alimentary & metabolism (18.5%), systemic anti-infectives (17.8%) and cardiovascular drugs (12.0%) (Figure 1.2). That also implies common kinds of diseases in Vietnam which are related to gastrointestinal tract, infection and cardiovascular system.

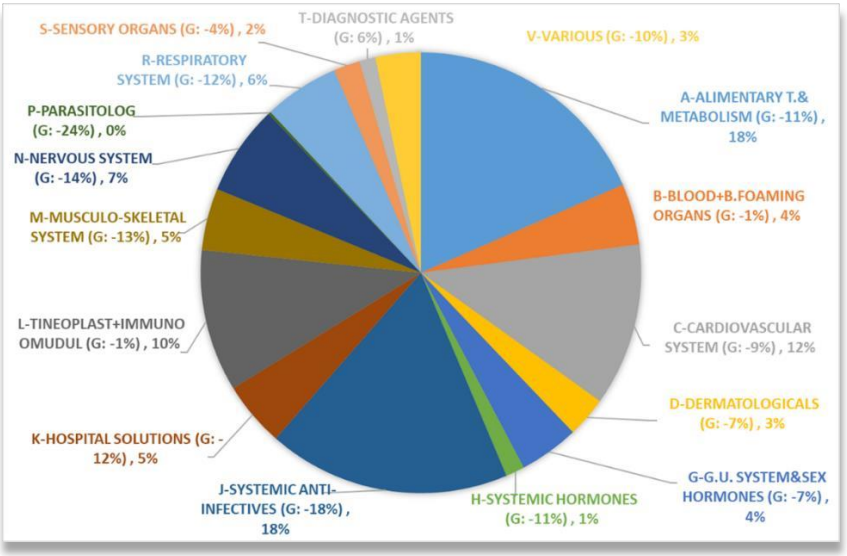

Figure 1.2. Market contribution and growth of therapeutic areas

Source: IQVIA report in May 2021

Currently, the pharmaceutical manufacturing and distribution system of Vietnam country are enlarged including around 250 manufacturing plants, 200 import-export companies, 4,300 wholesalers, and over 62,000 retailers (Phu Hung Security, 2021). Pharmaceutical products of local manufacturers which can be distributed directly to wholesalers or retailers while foreign ones or with foreign direct investment cannot. These foreign producers must authorize distribution to local partners aligned with Vietnam Pharma Law's regulations. Drugs from local manufacturers can be delivered to wholesalers or retailers as hospitals, clinics and drugstores.

Drugs are sold to the consumers at these retailers. At hospitals, patients diagnosed and prescribed by medical doctors, having applied public health insurance which can be reimbursed whole or partly expenses for drugs and medical services. In contrast, they must pay out of pocket for whole if they don't have any public health insurance approaches. Reimbursement by public insurance is not applied at private drugstores and patients self-indicated and buy drugs here. According to regulations, the consumers only buy ethical drugs following medical doctor's prescriptions which is different from over-the-counter drugs bought even no prescriptions.

Egis Pharmaceutical Private Limited Company (short name as Egis) is leading multinational pharmaceutical company with headquarter in Budapest, Hungary. The company has more than one-hundred-year history and belonging to Servier Group (France) since 2013. Egis provides pharmaceutical products over 60 countries and its own 18 subsidiaries and rep offices over the world. Egis has been in top 83 biggest manufacturers have supplied drugs into Vietnam market, shared 0.33% of total Vietnam pharma value (Anon., 2019). All Egis drugs are produced all process in Hungary country and are imported into Vietnam by local partners which have been represented since 1990s, focused on ethical drugs applied for cardiovascular and central nervous system treatment as well as over the counter (OTC) brands.

In Vietnam market, Egis' OTC drugs have been now available which included anti-allergics (Erolin® and Pollezin®), mucolytics (Halixol® and Paxirasol®) for wet cough treatment and anti-hemorrhoids (Repaherb®). Egis business performance in Vietnam has been under expectation last 2 years. Its growth is significantly negative in value compared with previous periods. That circumstances put Egis management team in Vietnam to face with a lot of challenges. In the other hand, it is well-known that during last above period, all Egis marketing mix strategy aimed to influencers as medical doctors and pharmacists mainly. These strategies have ignored their own decision-making role of the end-users or customers. To achieve business goals, its marketing strategic managers need approaches of growth initiatives. Among it, well comprehending the buying behavior of pharmaceutical consumers generally and Egis OTC products' as specific case at this channel and which and how factors affecting on, especially socio cultural perspectives is the crucial basis. Based on this comprehension, they can have an appropriate communication strategy to improve it business performance. In this research, the author clarifies key socio-cultural factors which impact to customer's pharmaceutical buying behaviors, take relevant conclusions as well as give valuable advices to Egis marketing and business managing team.

Basically, it could be a lot of different affecting factors, but in limited resources and significant focus purpose, the author only implemented to achieve a better understanding on the sociocultural factors influencing the pharmaceutical consumers' buying decision in this research. Therefore, its objectives are defined such as:

- Determining the sociocultural factors which impact on pharmaceutical purchasing decision.
- Measuring the impact levels of these sociocultural factors on pharmaceutical purchasing decision.
- And proposing suitable solutions and recommendations which should be helpful for Egis pharmaceutical business and marketing strategies inVietnam.

II. LITERATUREREVIEW

2.1. Customer buyingbehavior

Consumers look for items to fulfill their basic needs and wants. Consumer behavior is much more than studying what consumers buy. The theory of customer buying behavior is trying to understand how the decision-making process goes and how it influences consumers' buying behavior (Solomon, 2003).Marketing people study about consumers buying perspective to solve where, what and why they buy. But why consumers buy a specific product is not easy to solve because the answer is locked deep within the consumers' mind. (Kotler & Armstrong, 2010).

There are factors impact on consumer's buying behavior which are defined as social, cultural, personal, and psychological perspectives. Consumer behavior is a part of human one and by studying previous buying behavior. Marketing people can evaluate how consumers might treat in next times when making buying decisions. (Kotler & Armstrong, 2010).

This research only focuses on social and cultural perspectives of consumer behavior critically impacted on pharmaceutical customers' decision.

2.2. Model of consumer'sbehavior

Decisions related to purchasing are defined as outcomes of what consumers buy, where, how, how much, when, and why they buy. (Kotler & Armstrong, 2003)Previous experience, ageing, and external events, such as illness of job change which induces changes of lifestyle affecting additional consumption and result in new purchases (Neal, et al., 2002).

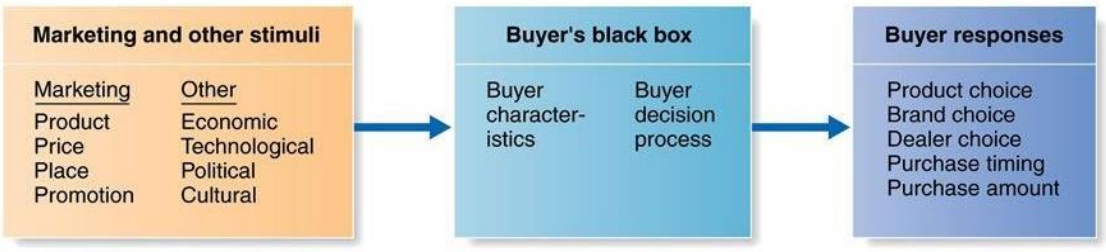

Figure 2.1. Buyer behavior model

Source: Kotler & Armstrong, 2003

Figure 2.1 presents marketing and other factors impacting and entering the consumer's black box and create certain responses. These inputs of marketing factors as product, price, place and promotion which can access the buyer's black box and transformed into a set of buyer responses observed such as: choices of product, brand, dealer, purchasing time, and quantity. The marketing people should understand how the stimulating factors are changed into responses within the black box of customers, which has two proportion as the buyer's characteristics which influence on the way they perceive and react to the stimulating factors and the buyer's decision process itself affects the customer's behavior (Kotler & Armstrong,2003).

2.3. Social and cultural factors affecting customer'sbehavior

2.3.1. Socialfactors

According to Phillip Kotler, social factors impacting customer's purchasing decision is included reference groups, family, roles, and status (Kotler, 2001).

Family: The family influences on consumer behavior strongly and basically. Family plays role as a purchasing unit and may be supplying needs of perhaps two or more generations. Moreover, each family member' point of view about religions and politics or habits is influenced by the

family. Each family member's behavior towards materials possession and thrift are formed by the family. The family influence children's purchasing behavior when they are growing. In a family, each person will be guided by cultural, political, system thought which maybe vary greatly across countries and social classesdifferent.

Reference group: this group plays role as a reference source which can influence individuals' affective responses, mindset, insight, and behavior. These influences on a person's thoughts and actions can be direct or indirect. People can rely on this groups as referred information sources on their decision. Different groups can provide different recommendations or influences. Well understanding the reference group and impacting on them, especially on key opinion leaders of group who have important roles in marketing strategies because they can influence or attract to all other members ofgroup.

Roles and Status: Roles are the fundamentals of needs, goals, beliefs, attitudes, values, and behaviors that are expected of an individual getting a position in the society. Every person has a specific role or position within each group to which this person belongs. In a family member may act as husband or father, wife or mother, son or brother or daughter or sister. Each role can affect how the person treats when purchasing the tools related to the role. Status is the positioning of each member of a group, organization or society. The wants to get higher level within the given role also impacts on the buying behaviour of each person.

2.3.2. Culturalfactors:

Phillip Kotler also defined cultural factors which have the most crucial influence on consumer behavior which include the buyer's culture, subculture, and social class. Culture is the most fundamental determinant of desires and behavior of a person. People in a different culture will have feelings about the value of the goods, the way they dress…are different. Therefore, the people who live in different cultural environments will have different consumption behaviors as well (Kotler, 2001).

Subculture: Every culture has its own subcultures which are creating more specific characteristics and the degree of social integration for the members. Subcultures make up important market segments and marketers often design responsive marketing products and programs meet demand (Kotler,2001).

Social class: Almost all societies clearly show social stratification. This stratification sometimes takes the form of a caste system whereby members of different castes are raised and taught to take on certain roles. Social classes are similar parts homogenous and stable objects in society, are hierarchical and consist of members share common values, interests and behaviors (Kotler, 2001). The difference in social class will create consumers with physical needs appear different and show quite clearly in shopping behavior, it makes a difference between people in one social class andanother

2.4. Consumer decision-makingprocess

The key process in consumer decision making is integrated by combined knowledge which come from evaluation of from two alternative behaviors and select one afterwards. A behavior intention is a plan which sometimes called a decision plan to engage in some behavior. All aspects of affect and cognition are related to consumer decision making as knowledge, meanings, and beliefs activated from memory and the attention and comprehension processes involved in interpreting new information in the environment (Peter & Olson, 1999).

Figure 2.2 below shows the buyer's decision process including of five stages; need recognition, information search, evaluation of alternatives purchase decision, and post purchase behavior. Clearly, this process starts long before actual purchase and continues long after. Marketing people need to focus on the entire buying process rather than on just the purchase decision. The figure implies that consumers pass through all five stages with every purchase. Nevertheless, in more routine purchases, consumers often skip or reverse some of these stages (Kotler & Armstrong,2003).

Figure 2.2. The buying decision process

Source: Kotler & Armstrong, 2003

Need recognition: The recognition of a needs is the first stage of process when the customer recognizes their problem or need. This need or requirement can be triggered by internal and external stimuli. From a marketing point of view, marketer should research consumers to find out what kinds of problems or needs arise, by what stimuli they are caused and how they led the consumer to a specific product at this first stage (Kotler & Armstrong, 2003).

*Information search***:** The stage after the customers recognized a need is searching for more information about it. If the consumer has strong drive and product is available, they are likely to buy it. If not, they may keep the need in their memory or undertake an information search related to the need (Kotler & Armstrong, 2003). All information provided by marketing communications and channels are invariably favorable to the product and/or brand. Consumers are especially likely to note the negative information and to avoid products or brands that receive negative evaluation (Schiffman & Kanuk, 2004).

Evaluation of alternatives: Evaluate or compare alternatives in terms of beliefs about relevant consequences and combine this knowledge to make a choice(Peter & Olson,1999). The consumer arrives at attitudes toward different brands through some evaluation procedure. How consumers go about evaluating purchase alternatives depends on the individual consumer and the specific buying situation (Kotler & Armstrong, 2003).

Purchase decision: If no other factors interrupt after the consumer has decided on the brand that is intended for purchase, the actual purchase is a common result of search and evaluation. A purchase is in terms of many decisions which are product type, brand, model, dealer selection, and payment terms, among other factors. In addition, rather than purchasing, the consumer may decide to modify, postpone, or avoid purchase based on an inhibitor to purchase or perceived risk (Peter & Donnelly,2001).

Post purchase: Consumers will be satisfied or dissatisfied after purchasing and use products. If being satisfied, they will engage in post purchase behavior of interest. If the product falls short of expectations, the consumers

Should be disappointed. If product meets consumer's expectations, they are satisfied. If it exceeds expectations, the consumer is delighted. The larger the gap between expectations and performance, the greater the consumer's dissatisfaction(Kotler & Armstrong, 2003).Each stage of this consumer decision making process is influenced by cultural, social, personal, and psychological factors (Kotler & Keller, 2012) *(Figure2.3).*

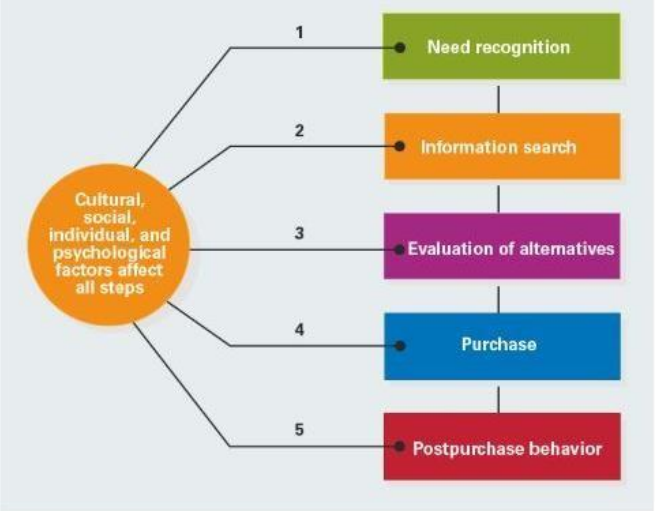

Figure 2.3. Consumer decision making process

Source: Kotler& Keller, 2012

2.5. Previous studies about social and cultural factors affecting pharmaceutical purchasing decision

There were many oversea studies that explore about **social factors** affecting pharmaceutical purchasing decision. The research of author Meseret, W. T. in 2020 examined factors affecting consumers' purchase decision of over-the counter (OTC) medicines from community pharmacies in Ethiopia, found that pharmacist 's recommendation has positive and significant effect on consumer's purchase decision of OTC medicines, besides factors related to price and country of origin of OTC drugs. Here, previous experience and other reference groups as families' and friends' recommendation have positive effect on consumers purchase decision of OTC medicines, but not statistically significant (Meseret, 2020). Another study, Kevrekidis, D.P. conducted A cross-sectional study in 2016 on a convenient quota sample of 300 participants recruited in the metropolitan area of Thessaloniki, Greece. It investigated the consumers' preferences concerning the selection of pharmacy and over the counter (OTC) medicines, and to identify customer segments in relation to these preferences. The research gained findings that previous experience, the pharmacist's opinion, and product price among those affecting the purchase of OTCs, received the highest ratings (Kevrekidis, 2018). Besides, Cîrstea, S.D. conducted a research of 324 people in Romania to see if there are changes in the purchasing behavior when individuals evolve as professional preparation. The study concluded OTC buying decision is triggered by several factors out of which the most important seem to be doctor choice, previous experience, advice of the pharmacist and the information stated on the prospectus (Cîrstea,2016).

In the other hand, there were many oversea studies that explore about cultural factors affecting pharmaceutical purchasing decision. Among them, Parulekar, M. implemented a systematic review about phenomenon of self- medication in developing countries in 2016. This author summarized conclusions of articles that *Cultural- cognitive beliefs* is one of contexts of self-medication which is a common phenomenon in developing countries (Parulekar, 2016). And another author, Jorge, E. M.A. who conducted a cross-sectional descriptive study in Pereira of Colombia in 2014 which recruited 414 adults using simple randomization sampling with houses used as the observational unit to investigate the prevalence of self-medication and its driven factors in a Colombian city. The result of study showed that one of reasons of self- medication is *sociocultural conditions, traditions and myths* (Jorge, 2014).

In Vietnam,authorNguyen,V.S.(2013)andHo,L.T.(2018)indicatedfactorsimpacttoOTCmedicinesbuying decision in HCMC which included reference group as doctors and pharmacist's recommendations or reference from family and friends which belonging to social factors (Ho, 2018), (Nguyen, 2013). Doan, A. D. (2021) investigated the selection of primary healthcare services and self-medication behavior of inhabitants of Hanoi capital. Its results showed that for health issues, there are 32.4 % of citizens chose to *go to drugstores for their health concerns* and purchase medicines while 32.6 % of them would go with their self-medication without healthcare consultation (Đoàn,2021).

Based on the previous foreign and local research, the table of summary is showed in the below which clearly describe the selected factors to investigate in this research are related to last ones.

Table 2.1. List of previous studies related to social and cultural factors affecting pharmaceutical purchasing decision

Authors/Factors	Social factors	Cultural factors
Meseret, W. T. (2020)	x	
Kevrekidis, D.P. (2018)	x	
Cîrstea, S.D. (2016)	x	
Parulekar, M. (2016)		x
Jorge, E. M.A. (2014)	x	x
Nguyen, V.S. (2013)	x	
Ho, L.T. (2018)	x	
Doan, A.D. (2021)	x	x

Source: Author's self-screening

2.6. Proposed research model andhypotheses

From the fundamental theory of Kotler and Keller in 2012 that suggested the model of factors affecting the customers purchasing decision (Kotler & Keller, 2012), literature searching and from pharmaceutical industry experts' ideas, the author's expectation, the final research model was suggested as illustrated in Figure 2.1.

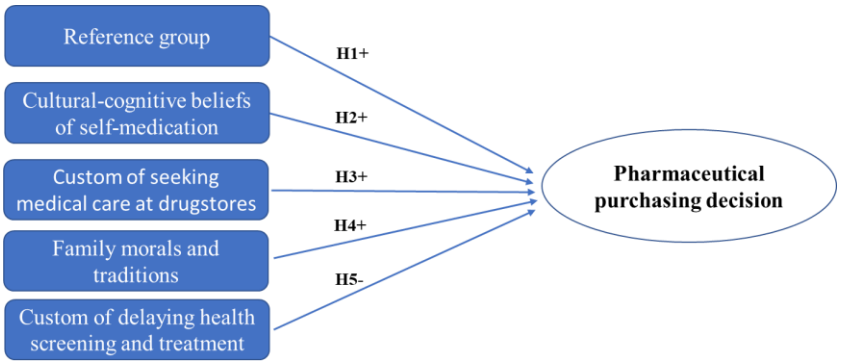

Figure 2.4. The proposed model of research after interviewing experts

III. DATACOLLECTION

3.1. Research process

The process of this research is applied with 4 phases shown in Figure 2. 2 below. In this, approaches and detailed implementations also are indicated here.

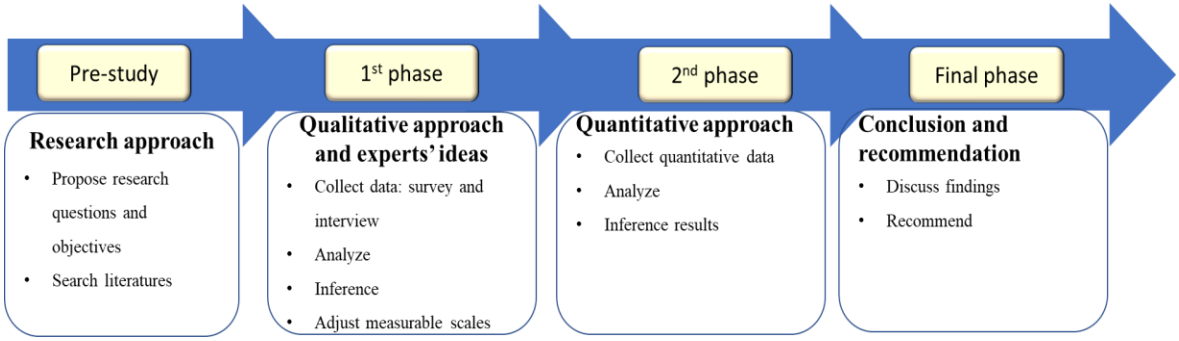

Figure 3.1. Proposed research process

3.2. Data collection

The primary and secondary data will be collected to approach and get objectives of this research. It applied survey method using Google form link containing questionnaire sent to respondents for collecting answers and feedback.

Primary data: the author delivered Google form link as an interviewing questionnaire at 1st phase to 10invited experts to interview and collect primary data as their ideas involving before defined factors, relevant observable variables, and measurable scales. At the second phase, a survey questionnaire in Google form link was sent to the potential or real consumers of pharmaceutical products who had bought something at drugstores already to collect 218 factual data of respondents. Before surveying, the author run pilot test with 10 respondents to check link and technique perspectives.

Secondary data: This research also used secondary data which already found from different sources such as published articles, reports related to the pharmaceutical industry, books, and from internet as well.

3.3. Qualitative approach

In the first phase of research, the author approached qualitative study which including interviewing 10 experts in pharmaceutical industry. After interviewing, analyzing and inferring, the fixed research model and hypothesis.

3.4. Quantitativeapproach

Research population: This quantitative approach has been used in this research and the data was primary gathered from customers visiting drugstores for buying something.
Sample size:

- Pilot test: 10 respondents
- Research sample:218 respondents who visit chosen drugstores at North, Central and South of Vietnam in the period from 10th September to 30th October2021.

Sampling technique: Stratified and convenient sampling is selected by dividing pharmacy customers into 3 groups according to living region are North, Central and South of Vietnam and sent the Google link of survey questionnaire to them for collecting data.
The survey questionnaire contains three main parts:

- Part I: including general information with 3 questions asking which common over-the-counter pharmaceutical brands including Egis OTC brands they have bought or used, which their common health problems they have purchased drugs for solving and whether they have had purchased Egis OTC brands yet.
- Part II: including 6 questions to define demographic perspectives.
- Part III: including 21 Likert scale questions which are defined for 17 observable variables of 5 independent factors and 4 observable variables of a dependent factor.
  Pilot study: The pilot survey link was sent to 10 people which helps exclude mistakes on the questions and to test if the skipped logic worked well.
  Data Analysis techniques: descriptive statistics, reliability test, explanatory factor analysis (EFA), multiple linear regression and ANOVA. The SPSS software version 20.

IV. DATA ANALYSIS ANDRESULT

At first, there is no variable removed after evaluating the reliability scale through Cronbach's Alpha and EFA method with 21 observable variables. Hence, the final research model still retains five independent factors and one dependent factor.

Table 4.1. Summary of EFA outcomes

	Factor	No.of items	Cronbach's Alphavalue	% of Variance	Conclusion
Independent Factors	Reference group (RF)	4	.770	**68.718%**	**Qualified**
	Cultural-cognitive beliefs of self-medication (SM)	6	.897		
	Custom of seeking medical care at drugstores (SD)	2	.713		
	Family morals and traditions (MT)	3	.750		
	Custom of delaying health screening and treatment (DS)	2	.646		
Dependent Factor	Pharmaceutical purchasing decision (PD)	4	.885	**74.318%**	**Qualified**

Table 4.2. Total variance explained for dependent variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Var.	Cum. %	Total	% of Var.	Cum. %
1	**2.973**	74.318	74.318	2.973	**74.318**	74.318
2	.408	10.203	84.520			
3	.341	8.516	93.036			
4	.279	6.964	100.000			

Source: SPSS processed result

Next, the multiple linear regression outcomes show that the research model consists of five independent factors including reference group, cultural-cognitive beliefs of self-medication, customs of seeking medical care at drugstores, family morals and traditions and custom of delay seeking health screening and treatment that influence the dependent factor "pharmaceutical purchasing decision". Among them, the factor "reference group" has the strongest impact on dependent factor called "pharmaceutical purchasing decision". The next factors affecting the dependent factor in turn are "cultural-cognitive beliefs of self-medication", "custom of seeking medical care at drugstores", "family morals and traditions" and "custom of delaying health screening and treatment". Moreover, the lowest impact among independent factors which is "custom of delaying health screening and treatment" having negative relationship with dependent factor of pharmaceutical purchasing decision.

Table 4.3. Coefficient results of multiple linear regression

Coefficients[a]								
Model		nstandardized Coefficients		Stand. Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Cons.)	1.089	.228		4.780	.000		
	SM	.239	.037	.305	6.554	.000	.676	1.479
	SD	.190	.036	.235	5.267	.000	.733	1.365
	DS	-.098	.032	-.124	-3.084	.002	.909	1.101
	MT	.149	.038	.173	3.974	.000	.772	1.296
	RF	.317	.037	.370	8.654	.000	.796	1.255
a. Dependent Variable: PD								

Source: SPSS processed result

Based on this coefficient result, the linear regression equation can be written as below:

$$\mathbf{PD = 0.305*SM + 0.235*SD + (-0.124) *DS + 0.173*MT + 0.370*RF + E}$$

With E value is defined for unknown factors and errors.

Finally, the results of ANOVA analysis also show there is a difference between male and female in pharmaceutical buying decision, in which female customers tends to buy drugs more than male group; but no differences among aging segments, different education level groups, working

categories, monthly income level and living regions in thisdecision.

Table 4.4. Correlation matrix result

		PD	SM	SD	DS	MT	RF
PD	Pearson Correlation	1	**.656****	**.559****	**-.345****	**.493****	**.625****
	Sig. (2-tailed)		**.000**	**.000**	**.000**	**.000**	**.000**
	N	218	218	218	218	218	218
SM	Pearson Correlation	.656**	1	.403**	-.233**	.382**	.437**
	Sig. (2-tailed)	.000		.000	.001	.000	.000
	N	218	218	218	218	218	218
SD	Pearson Correlation	.559**	.403**	1	-.263**	.412**	.262**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	218	218	218	218	218	218
DS	Pearson Correlation	-.345**	-.233**	-.263**	1	-.168*	-.162*
	Sig. (2-tailed)	.000	.001	.000		.013	.017
	N	218	218	218	218	218	218
MT	Pearson Correlation	.493**	.382**	.412**	-.168*	1	.232**
	Sig. (2-tailed)	.000	.000	.000	.013		.001
	N	218	218	218	218	218	218
RF	Pearson Correlation	.625**	.437**	.262**	-.162*	.232**	1
	Sig. (2-tailed)	.000	.000	.000	.017	.001	
	N	218	218	218	218	218	218

***. Correlation is significant at the 0.01 level (2-tailed).*

**. Correlation is significant at the 0.05 level (2-tailed).*

Source: SPSS processed result

4.1. Discussion linear regressionresults

This research model includes of five independent factors related to social and cultural perspectives: “Reference group”, “Cultural-cognitive beliefs of self-medication”, “Custom of seeking medical care at drugstore”, “Family morals and traditions”, “Custom of delaying health screening and treatment” that influence the dependent factor “Pharmaceutical Purchasing decision”. The author based on the beta coefficients (standardized coefficients) to check influence level of these independent variables. The result outputs show that factor “Reference group” has the most significant impact on factor “Pharmaceutical purchasing decision” with beta value is 0.370 and sig <0.05 and positive. That means relationship between this factor on pharmaceutical purchasing decision is positive and the more positive and appreciate recommendation of reference group of social factors, the more active pharmaceutical purchasing decision of customers. Four observed variables of “Reference group” factor

was scored from 3.11 to 3.74 (Likert scale). The highest variable score is 3.74 reached the 4-point threshold is “pharmacist’s recommendation” Therefore, role of pharmacists as staffs at drugstore is very important in customers’ purchasing decision.

The second most impacted factor on dependent factor is cultural-cognitive beliefs of self-medication (SM), with beta = 0.305 > 0 and sig=0,000 and positive. Therefore, the relationship between this factor on pharmaceutical purchasing decision is positive and the more positive and appreciate cultural-cognitive beliefs of self- medication, there is the more active pharmaceutical purchasing decision of customers. Among observed variables of factor, self-medication due to difficulties of access to medical consulting, basing on customers good

experience before and self-medication to save money are scores above 4 of Linkert scale. That shows that limitation of family healthcare system in Vietnam towards completely healthcare of population is still not common and the importance of customers' previous experience on drug usage.

The next factors affecting the dependent factor in turn are "Custom of seeking medical care at drugstore" (SD) and "Family morals and traditions" (MT), with the corresponding beta values are 0.235 and 0.173. Both beta values are positive, so these independent factors have positively significant correlations with pharmaceutical purchasing decision.

In contrast, factors affecting the dependent factor named "Custom of delaying health screening and treatment" (DS) has negative beta value as -0.124. That means relationship of independent factor on pharmaceutical purchasing decision is negative. It shows the less custom of delaying health screening and treatment, the more positive impact on pharmaceutical purchasing decision of customers. Educating and encourage people to take routine health check annually and get medical consulting early can help in OTC business perspective as well as public health. From analyzing level of influence among factors on pharmaceutical purchasing decision of customers help strategic operation team choose priority of elements to improve first in case limited resources.

V. RECOMMENDATION

5.1. Regarding to the most impact of "Reference group"factor

The research result shows that "Reference group" is the most influence among investigated independent factors on pharmaceutical purchasing decision. Based on that, integration on this factor can bring much business improvement. According to the result of survey, recommendation from doctors and pharmacists is involved significantly in most of pharmaceutical buying decision of customers. Therefore, pharmacists and doctors play roles as the most important audiences which strategies in strengthen medical promotion and optimizing content of communication targeting to them should be applied. For Egis business with its OTC drugs, improving communication strategy to these healthcare professional forces are critical. Besides, recommendation and introduction from other group as friends, colleagues and family of customers is also important which influence on purchasing decision. Hence, the Egis company should follow and monitor these other reference groups, especially in social media network where now sharing, feedbacks and comments anything including diseases, health situation, and solutions as well. That implies that multichannel marketing approach, good public relationship and health education could be optimal solutions to manage these audiences.

5.2. Regarding to the important influence of "Cultural-cognitive beliefs of self-medication "factor

Following reference group about influence level, it is factor of customers' cultural-cognitive beliefs of self- medication. So, strategies in increasing health education activities for patient and public about symptom management of allergies, wet cough and hemorrhoids which involved to its Egis OTC drugs is also crucial and should be focused by Egis Vietnam strategic making team. This research showed that customers would like to purchase OTC drugs for their symptoms because they have habit of self-medication derived from their cultural cognitive perspective for self-dialogizing and finding own pharmaceutical solution.

5.3. Regarding to the moderate influence of "Custom of seeking medical care at drugstores "factor

The factor related to custom of seeking medical care at drugstores also moderately significant impacts on pharmaceutical purchasing decision as result and conclusion of this research. In case of Egis business of OTC brands, increase in these product's coverage over community drugstores and well-training to pharmacists here is very necessary. Besides, Egis promotion campaign should enlarge widely to points of sales as drugstores to increase Egis product awareness to pharmacists as well as to customers visiting there.

5.4. Regarding to the moderate influence of "Family morals and traditions"factor

Factor of family morals and traditions including observed variables of centralized role of children in family, traditional and extended family and much caring elderlies in family is positively impact on pharmaceutical purchasing decision. Egis has OTC drugs specialized for children as Halixol® syrup (for treatment of wet cough), Erolin® syrup (anti-allergic) and for elderly patients with hemorrhoid symptoms as Repaherb®. So, the communication content to targeted audiences as mothers and housewives should imply about high quality, EU origin and optimal safety of Egis OTC drugs.

5.5. Regarding to the weak and negative influence of "Custom of delaying health screening and treatment"factor

The only this factor related custom of delaying health screening and treatment has negative relationship with pharmaceutical purchasing decision, but with lowest impact level. To change a cultural habit of people, it requires long-term strategy and huge media investment through the actives of propagandas, advice and education on general early health screening to community. As the result, early detection of diseases and disorders help patients access early necessary medical services including pharmaceutical products consumption as well. However, these activities often need huge budget for large number of audience and long-term period while influence level is low. Therefore, with limited resources, Egis management team should focus on factors with the highest influence instead of investing to improve this cultural custom of people related to delay of health screening and treatment. That helps to avoid getting low return on investment and badprofitability.

5.6. Regarding to the difference of gender in pharmaceutical purchasingdecision

Through result of this research shows difference among male and female gender in pharmaceutical purchasing decision, in which females have trend to buy medicines more than males. Therefore, the female customers should be got more targeted in marketing strategy than male ones.

VI. CONCLUSION

Currently, there is published study on sociocultural factors affecting customers' pharmaceutical purchasing in Vietnam critically yet. The aim of this research was to examine how critical socio-cultural factors effect on consumer behavior when they select pharmaceutical products and gain knowledge of the decision-making process. The theory part included the overview of these factors and steps of the decision-making process. A questionnaire was created based on these issues. The research focused on finding these factors behind consumer behavior and the effect of those in the decision-making process. Results of the empirical study indicated that there was a relationship between socio-cultural factors and the decision-making process in pharmaceutical product purchasing, it was significant. It can be said that these factors have effect when consumers are making decisions purchasing. The result shows that beside recommendation of

healthcare professional, family and friends are the most important factors, cultural-cognitive beliefs of self-medication, custom of seeking medical care at drugstores, family morals and traditions as well as custom of delaying health screening and treatment also effect on decision making when selecting drugs for themselves or relatives. This gives answers to research questions that were set for this study. Based on the results found in this research, the author also has some recommendation to Egis OTC business case.

ACKNOWLEDGMENT

This completion of this study could not have been possible without the guidance and instruction of my supervisor, PhD. Pham Van Tai. I would like to express my dears and big thanks to him for giving me the heart of educational, knowledge and understanding. He also gives me the opportunity to do this study. In addition, the author also cannot complete this study without the support and comments of my Egis colleagues in Vietnam and classmates at PGSM, who helped a lot in gathering different information as well as collecting data despite of their busy schedules.

REFERENCES

1. Anon., 2019. *About us: Company profile.* [Online] Available at: https://vn.egis.health/company-profile [Accessed 25 Sep2021].
2. Anon., 2021. *My Product: IQVIA.*[Online] Available at: https://www.customerportal.iqvia.com/sites/portal/products
3. Anon., n.d.*Wikipedia.* [Online] Available at: https://en.wikipedia.org/wiki/Medication [Accessed 30 Nov 2021].
4. Bryman, A. & Bell, E., 2011. *Business Research Methods.* 3rd ed.s.l.:Oxford.
5. Burns, A. & Burns, R., 2008. *Basic Marketing Research.* 2nd ed. s.l.:Pearson Education.
6. Cîrstea, S., 2016. Analysis of Factors that Influence OTC Purchasing Behavior. *International Conference on Advancements of Medicine and Health Care through Technology,* pp.303-308.
7. Đoàn, A. D., 2021. Sựlựachọncơsở y tếvàthựctrạngtựđiềutrịcủangườidântrên. *NghiêncứuDược&Thông tin thuốc,* 12(1), pp.2-7.
8. Frank, K., 2011. *Consumer Behavior.* 2nd ed. s.l.:Cengage Learning,Inc..
9. Ho,L.T.,2018.*Factorsinfluencingpharmacycustomers'purchasingdecisionofover-the-countermedicines in Ho Chi Minh city.* [Art] (Paris Graduate School ofManagement).
10. Jorge,E.M.-A.,2014.Social,culturalandeconomicfactorsassociatedwithself-medication.*Biomédica,* 34(4), pp. 580-588.
11. Kevrekidis, D. P., 2018. Community pharmacy customer segmentation based on factors influencing their selection of pharmacy and over-the-counter medicines. *Saudi Pharmaceutical Journal,* Volume 26, pp. 33- 43.
12. Kotler, P., 2001. *Marketing Management.* 10th ed. s.l.:Pearson Education Canada.
13. Kotler, P. & Armstrong, G., 2003. *Principles of Marketing.* 10th ed. s.l.:Pearson/PrenticeHall.
14. Kotler, P. & Armstrong, G. M., 2010. *Principles of Marketing.* 13th ed. s.l.:PrenticeHall.
15. Kotler, P. & Keller, K. L., 2012. *Marketing Management.* 14th ed.s.l.:Pearson.
16. Kumar, R., 2019. *Research Methodology.* 5th ed. s.l.:SAGA publicationsLtd.
17. Meseret, W. T., 2020. actors Affecting Consumers' Purchase Decision of Over-The-Counter (OTC) Medicines: Empirical Evidences from Community Pharmacies in Ethiopia. *Journal of Medicine, Physiology and Biophysics,* Volume 65, pp.8-25.
18. Neal, C. M., Quester, P. G. & Hawkins, D. I., 2002. *Consumer Behaviour: Implications for Marketing Strategy.* 3rd ed.s.l.:McGraw-Hill.
19. Nguyen, V. S., 2013. *NghiêncứucácyếuảnhhưởngđếnquyếtđịnhmuathuốckhôngkêđơncủangườitiêudùngtạiThànhPhốHồChí Minh.* [Art] (TrườngĐạiHọcKinhTếThànhPhốHồChíMinh).

20. Parulekar, M., 2016. Self-medication in Developing Countries a Systematic Review. *Journal of Pharmaceutical Technology, Research and Management,* 4(2), pp.103-127.
21. Peter, J. P. & Donnelly, J. H., 2001. *Marketing Management: Knowledge and Skills.* 6th ed. s.l.:Irwin/McGraw-Hill.
22. Peter,J.P.& Olson,J.C.,1999.*Consumer Behavior and Marketing Strategy.*5thed.s.l.:Irwin/McGraw-Hill.
23. Phu Hung Security, 2021. *NgànhDượcPhẩm,* s.l.:s.n.
24. Saunders, M. N., Lewis, P. & Thornhill, A., 2019. *Research methods for business students.* 8th ed. s.l.:Pearson.
25. Schiffman, L. &Kanuk, L. L., 2004. *Consumer Behavior.* 8th ed.s.l.:Pearson.
26. Solomon, M. R., 2003. *Consumer Behavior: Buying, Having, and Being.* 6th ed. s.l.: Pearson/PrenticeHall.
27. Stevenson, H.H., Roberts, M.J.& Grousbeck, H.I.,1999. *New Business Ventures and the Entrepreneur.*5th ed.s.l.:Irwin/McGraw-Hill.
28. Tabachnick, B. G. &Fidell, L. S., 2007. *Using multivariate statistics.* 5th ed. s.l.:Allyn & Bacon/Pearson Education.
29. World Health Organization, 2020. *Guidelines for the Regulatory Assessment of Medicinal Products for use in Self-Medication,* Geneve: s.n.
30. Thoiquentieu dung: Dia hat moicho ban le duocpham, [Online], Available:http://forbesvietnam.com.vn/kinh-doanh/dia-hat-moi-cho-ban-le-duoc-pham-766.html[30 September2021]
31. Understanding Over-the-Counter Medicines, [Online], Available:https://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/[11 October2021]
32. Xu huong phat triencua thi truongduocpham Viet Nam, [Online], Available: http://odclick.com/tin-tuc/xu- huong-phat-trien-thi-truong-duoc-pham-viet-nam-2018/[11 October2021]
33. Lýgiảixuhướngchuyểnđổitừkênhbánhàng ETC sang OTC, [Online], Available: http://mobiwork.vn/xu-huong-phat-trien-kenh-ban-hang-otc-cua-nganh-duoc/[21 November2021]
34. Decree 54/2017/NĐ-CP Details and Guidelines on the Implementation of Specific Articles of the new Pharmaceutical Law, *Ministry of Health*, [Online], Available: https://vnras.com/decree-54-2017-nd-cp/[30 November 2021]
35. Nâng cao vị thế chăm sóc sức khỏe ban đầu, [Online], Available: https://moh.gov.vn/home?p_p_id=101&p_p_lifecycle=0&p_p_state=maximized&p_p_mode=view&_101_s truts_action=%2Fasset_publisher%2Fview_content&_101_type=content&_101_urlTitle=nang-cao-vi-the- cong-tac-cham-soc-suc-khoe-ban-au [21 November 2021]
36. Dr. C. Kathiravan; Dr. S. Dinesh; P. Mahalakshmi; V. Suresh; A. Rajasekar., 2019. Determinants of over the Counter (OTC) Purchasing Behavior of Medicines in the Pharmaceutical Industry. *Test Engineering & Management*(81), pp. 6600 -6607