



Provide a framework for using of competitive intelligence, during marketing strategic decision-making process

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Abstract: *Due to competitive markets in various industries, organizations should have accurate information about their competitors, market and their customers to make right decisions at the right time with sufficient information. In this regard, in the present paper, we discuss the components of intelligence competitive products and how these products affect developing marketing strategy stages. In other words, we will look that in what stage of strategic decision-making markets, achievements of competitive intelligence can help organization's managers. For this reason, there will be firstly identified processes and outcomes for the organization's competitive intelligence and steps of strategic marketing decision-making process by reviewing intelligence literature and citing examples of practical applications of competitive intelligence on successful organizations. Then, by preparing a questionnaire, we try to determine impact intensity of each product of competitive intelligence in any steps of strategic marketing decision-making process using opinions of organizational experts and managers and analyzing the questionnaires' data. Finally, we model the correlation between competitive intelligence products with any steps of strategic marketing decision-making process quantitatively. Using this model, organizational managers can realize the importance and position of any competitive intelligence products in their strategic decisions.*

Keywords: *competitive intelligence, marketing strategy, competitive intelligence applications*

INTRODUCTION

Today, the observed fact is that to survive in markets where competitive intelligence units have been added to the structure of competitor firms, organizations need to know their competitors and they must have a strong competitive intelligence unit. Developing technologies and the Internet allow all companies and organizations to use competitive intelligence techniques (Attaway, 1999). By reviewing business environment literature, competitive intelligence and knowing competitors, the formal formulation process of marketing strategy is considered as a basis for collecting and processing relevant information. In fact, the importance of reviewing business environment and competitors is often related to company performance (Daft et al., 1988). Belich and Dubinsky (1999) summarized the relationship between business environment and information processing for effective strategic decision-making: "the ability to develop appropriate organizational mechanisms to learn from competitors and business environment because their efficient emission and use may be a prerequisite for identifying and adapting to the great changes in the market".

In marketing strategy, competitive intelligence and reviewing business environment and information processing activities can be performed to adjust the level of environmental uncertainty (Daft & Macintosh, 1981). Therefore, environmental uncertainty is led to increase data processing activities in company (Daft et al., 1988). Competitive intelligence and reviewing business

environment are related to achieve a tool for measuring ability to understand business environment of a company (Brouard, 2006). In short, the rational model of decision-making strategy is required to examine internal and external environment of organization, in order to align strategy with its surroundings. To achieve this, it is necessary to design proper infrastructures to process information. Competitive intelligence is a process to gather and analyze information to assist in strategic decision-making.

According to the above-mentioned matters, in their previous studies, all researchers emphasized on the importance of understanding business environment and competitive intelligence to develop marketing strategy and macro-level perspective of organization. They have included it as one of essentials for developing strategy. However, in none of previous studies, there have not been provided a general framework to determine that what products of competitive intelligence can be effective in which stage of marketing strategy formulation.

In the first section of the paper, by reviewing literature in field of intelligent and competitive intelligence, we want to achieve a true understanding on competitive intelligence products on a organization; then in the next step, we will study a process to develop marketing strategy within an organization step-by-step. Finally, by providing a framework and model, it is shown that any competitive intelligence product is effective on what stage of marketing strategic decision-making process.

1. Literature

1.1. *What is intelligence?*

The concept of intelligence has a rich history over 2000 years (Juhari & Stephens, 2006). In various sources, intelligence has been defined as a part of marketing strategy, efforts to increase competitiveness of enterprises and strategic planning process (Guyton, 1962). Previous studies have introduced intelligence as a necessary precondition for strategic planning (Porter, 1980). Market intelligence is an area with more scientific attention and it is a logical development of discipline in market research (Walle, 1999). By reviewing intelligence literature, it can be concluded that there is believed that competitive intelligence (CI) may refer to real purpose of intelligence that is to gain a strategic advantage (Porter, 1980).

1.2. *Competitive intelligence and its products*

Competitive intelligence means the initiated systematic process by an organization to collect and analyze information about competitors and social, political and economic environment of company. The main purpose of CI programs is to use various information sources to enhance organization's competitive advantage, while reducing competition advantage of competitors (William, 2003). As a process, CI contains a set of legal and ethical methods that helps organizations to use information for profit and achieve success in a competitive market. As a product, CI includes information on activities of competitors from public and private sources as well as the present and future behavior of competitors, suppliers, customers, technology, markets, products and services and business environment (Vedder et al., 1999). In another definition, competitive intelligence can be considered as a systematic and ethical program to collect, analyze and manage external information that can affect company's plans and macro decisions and actions of an organizations (William, 2003).

CI value mainly depends using intelligence that by using CI, it is possible that companies achieve better performance in new business acquisition, maintain existing business, improve performance and morale of sales force (McGonagle et al, 2004). The organized competitive intelligence plays a major role in large corporate strategies. Its benefits for organizations include sharing ideas, improving prediction ability, improving skills of analytical directors and integrating ideas of diversity (Gilad, 1989). In the other hand, using CI in an organized information system can increase competitiveness of organization, predict with a high level of trust, assess business environment and support strategic decision (Popa & Cucui, 2009). According to the previous works, we realize that competitive intelligence products are effective on various aspects of an organization (Table 1).

Table 1. Table of competitive intelligence products

Product	Reference	Symbol
Detailed information on competitors	Fire (1966)	F1
Information about customers and suppliers	Fire (1966)	F2
Detailed information on technologies	Gilad (1989)	F3
Detailed information on social, political and economic environments	Burke (2003)	F4
High speed in data analysis by integrating databases	Vedder (1999)	F5
Assessing internal business environment and organizational performance	Pupa (2009)	F6
Helping to deliver new products by analyzing market data	Guydliz (2010)	F7
Right understanding of human resources	Guydliz (2010)	F8
Sharing ideas using knowledge management	Gilad (1989)	F9

1.3. Competitive intelligence process in organization

Competitive intelligence in organizations is not like a project with a beginning and ending point, but as a process, it is combined with organizational structure and during time, there will be applied some changes or modifications to it. In most of previous studies, there were considered three main stages for competitive intelligence process: data collection, data extraction and analysis and using production knowledge (Hiltbrand, 2010). In this article, we use an integrated and comprehensive model that covers all steps in detail. Dishman and Calof presented this (Dishman, 2007) (Fig. 1).

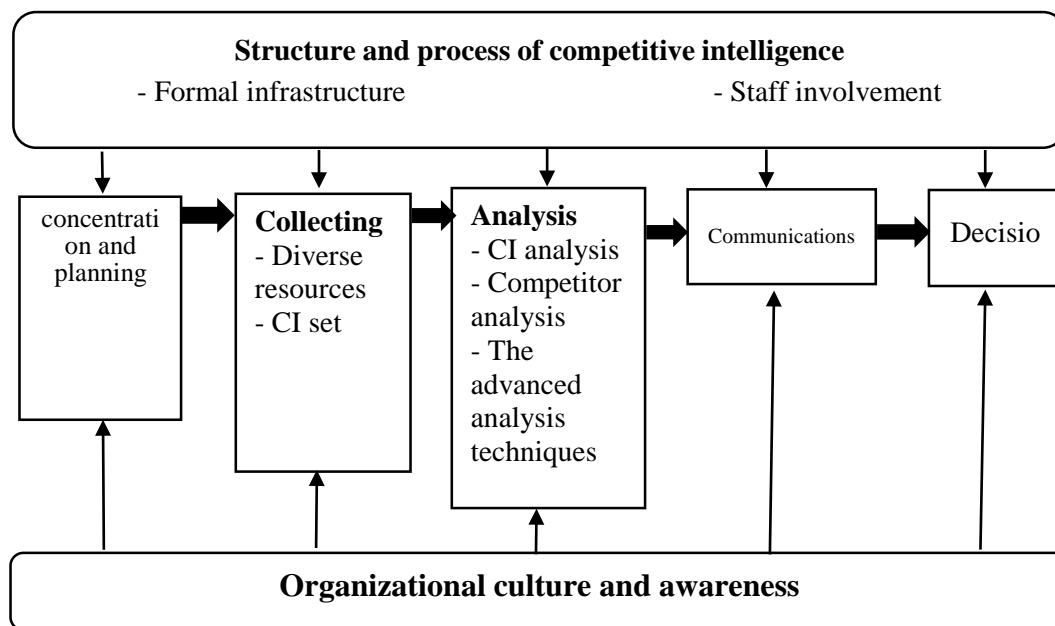


Fig. 1. Competitive intelligence process in organization (Dishman, 2007)

1.3.1. Planning and focus

All processes in intelligent are conducted to gather any information about a particular subject, but it focuses more on issues that are very important for senior managers (Daft et al., 1988). The focus and planning phase is very important, so it is expected that there is available active focus and planning stages when examining an information process, so that are pay special attention to this phase (Herring, 1998).

1.3.2. Gathering

Calof and Miller (1997) as members of Competitive Intelligence Society (SCIP), in their study on intelligence process showed that there have been gathered about %25 of all information during involvement with intelligence activities.

1.3.3. *Analysis*

Analysis is a step that creates real intelligence and information turn into applicable intelligence that enable strategic and tactical decisions (Calof & Miller, 1997). There have been conducted many works on analyzing competitors and business environment and in all studies, analysis has been considered as a step of intelligence efforts (Chen, 1996).

1.3.4. *Communications*

The results of intelligence must be delivered to those people with power and responsibility. Previous studies in areas of business environment, strategic planning and marketing knowledge have investigated impact of communications (Saxby et al, 2002). Many companies conduct in short term projects on field of intelligence. However, they could not operate properly on how should be communications in process of competitive intelligence, who is responsible to receive outputs of each stage and how should be the relationship between people and processes in organization. They are faced with problems on communication phase in process of competitive intelligence.

1.3.5. *Organizational knowledge/culture*

We need to organizational knowledge about intelligence and competitive culture to use information of an organization for its success. Compared to other competitors, organizational individuals and managers need to know about importance and use of competitive intelligence in organization and create a competitive advantage.

1.4. *Competitive intelligence applications*

Competitive intelligence with strategic implementation can create a competitive advantage for organizations: $CI + SI = CA$ (Rogojanu et al., 2010). In another study, it has shown that using competitive intelligence products, marketing managers can accelerate their analysis on information and adopt marketing models with a greater focus. Focus on the analyzed data by marketing managers can create a competitive advantage for organization and tools and skills of competitive intelligence allow marketing managers to have a correct insight about their surroundings (Heinrichs & Lim, 2008). Table 2 shows practical examples of competitive intelligence in organizations by considering their work focus.

Table 2. Practical applications of competitive intelligence (Calof & Smith, 2010)

Company	Work centrality	Reference
Applied Biosystems	Forecasting sales in next 3-5 years	Budd (2000)
Dupont	Finding the next jump for company's business	Coburn (1999)
Smith Kline	15-year horizon for strategic planning	Paap (1999)
Boeing	Helping to achieve the company's 15-year mission	Paap (1999)
Automotive	Focus on innovation	Watts et al (1999)
Rapid patient Requirements	Who are competitors? How is the company's competitive situation?	Rosenkrans (1998)
Pharma	How can stabilize a strong leadership position in market?	

1.5. *Marketing Strategy*

Marketing is a vital function that helps companies to survive in crisis times. In the last twenty years, there has been greatly emphasized on marketing and its role in organization management as well as its impact on company's success in competitive environment (Brooksbank et al, 2003). Having a strategic plan and decision-making is critical for any organization, so that well-thought out and implement the right strategy can be considered as the difference between successful and failed organizations (Eckel & Witmer, 2010).

- *Logical process for strategic marketing decision-making*

Information about competitors, markets, technology and social trends of people can affect marketing strategic decisions of a company and evaluate available options. According to researchers (Johnson et al, 2005), the structured approach of strategic marketing decision-making process includes the following steps:

1. The identified problem or issue in organization must be clearly explained by a person who makes marketing strategic decisions;

2. Decision directors collect information about options for decision making;
3. Advantages and disadvantages of each option is determined to make marketing decision;
4. When experts find a suitable solution, other experts will analyze it;
5. Before final decision-making to select strategic marketing solutions, all advantages and disadvantages will be reviewed once again;
6. Rules and measures are considered to implement this marketing decision-making;
7. There should be considered a procedure to assess objectives of strategic decision-making;

We use the presented model in Fig. 2 to show rational process of decision-making about marketing strategy completely and the relationship between steps.

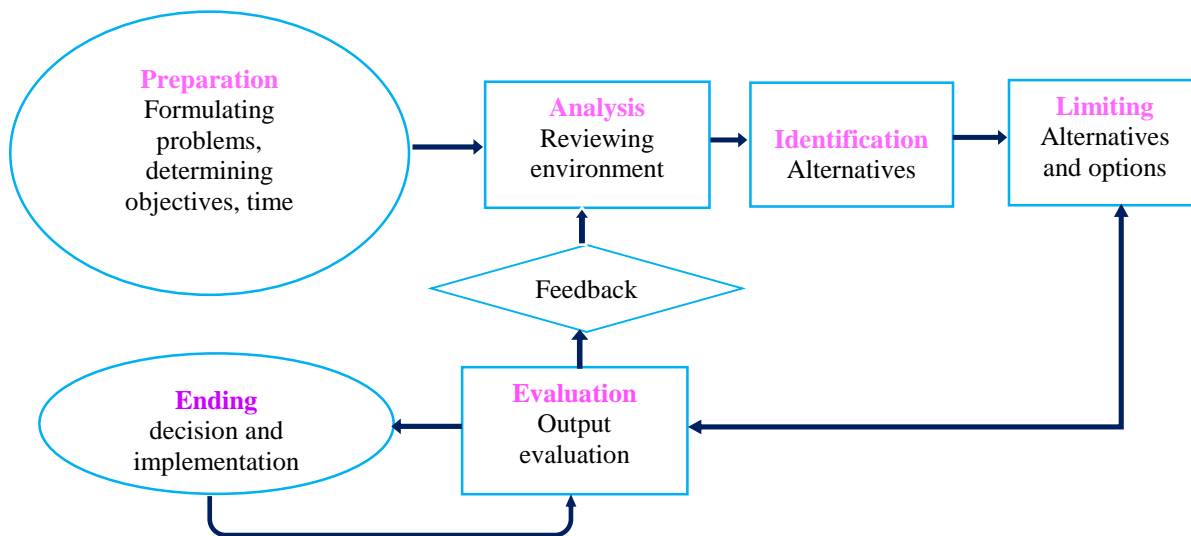


Fig. 2. Strategic marketing decision-making process (Citroen, 2011)

- *Preparation*

At this stage, there is systematically identified purpose of strategic marketing decision-making by managers and objectives are explained exactly. There will be considered specified time period to achieve marketing strategic objectives; then there will be prepared the required internal and external information for decision-making.

- *Analysis*

In analysis stage, if we want to move from raw data into knowledge and intelligence, we should perform analysis activities of data sources, analysis of web pages, collect information about branches of organization, consultation with advisors and offices and customer analysis (Citroen, 2011). The current situation of organization is given by considering its strengths and weaknesses.

- *Assess and limit options*

These estimates should be appropriate alternatives economically and possible of strategy success. It is suggested that the role persons with opposing views is used to extract challenges and solutions for strategy to revise or abandon the strategy. Research indicates that applying opposition opinions is led to limit decision options and choose the most suitable strategy among options (Armstrong, 1982).

- *Implementing marketing strategies*

One of weaknesses of strategic plans is lack of adequate oversight on changes in business environment and organization path. On the other hand, lack of providing feedback, as part of strategic planning, is another weakness that can lead to failure objectives. Another issue is the fact that assessment of strategic process takes place annually that it does not permit managers to deal with internal and external environment changes quickly (Antheil & Spinelli, 2011).

1.6. Reviewing previous works

In previous works, researchers have somehow considered the impact of competitive intelligence products on indoor and outdoor conditions and implement strategic decisions. The observed weaknesses in the works show that there has not been provided a general model for assessing the impact of competitive intelligence products on organization and organizational decisions and each researcher has considered impact of outputs and competitive intelligence products on a dimension of organization's environment. For this reason, in this study, we tried to consider competitive intelligence products from various perspectives and achieve the impact and importance of each of these products on marketing strategic decision-making process. For example, in his work, Charity (2013) considered competitive intelligence products only in manufacturing sector of organization and creating competitive advantage. It seems that in addition to these sectors, competitive intelligence products can be studied in terms of organizational evaluation and performance, providing detailed information from competitors and customers etc (Table 3).

Table 3. Previous review works

Role of products	Authors
<ul style="list-style-type: none"> • The impact of competitive intelligence products on manufacturing sector of organizations • The impact of competitive intelligence products to create competitive advantage in the market 	Charity, A. & Joseph, I. (2013)
<ul style="list-style-type: none"> • Using competitive intelligence to analyze external environment by Porter's Five Forces • Using competitive intelligence and business intelligence to analyze internal environment 	Felicia, A. et al (2007)
<ul style="list-style-type: none"> • Use competitive intelligence to develop a measure criterion based on organization's activities and solving deficiencies of previous measure criteria based on results of works 	Sullivan, M (1997)
<ul style="list-style-type: none"> • Analyzing information and knowledge management to support decision systems about cancer diagnosis 	Canongia, C (Research review) (2007)
<ul style="list-style-type: none"> • The role of information flow in organization to create competitive advantage and contribute to strategic decision making in organization 	Citroen, C (2011)

2.

3. Methodology

3.1. Research types

The present research is applicable objectively because senior managers in organizations who are responsible for deciding and defining organizational goals can determine place of any competitive intelligence product and use competitive intelligence products in their decisions. In terms of procedure, it is a descriptive-correlation research because to conduct the research, on the one hand, there have been identified competitive intelligence products and decision-making processes of marketing strategy; and on the other hand, using inferential statistical methods, we look forward to determine the importance degree and application of competitive intelligence products in marketing strategy decision-making process and achieve dependence between the products and decision-making process.

3.2. The research hypotheses and questions

Hypothesis

Competitive intelligence products have a positive impact in marketing strategic decision-making process.

Research questions

In this study, we discuss on the following questions. Meanwhile, competitive intelligence products refer to the represented products in Table 1.

Q₁: Which products of competitive intelligence affect strategic marketing decisions in information preparation phase? How much degree of importance of each product in this step of decision-making?

Q₂: Which products of competitive intelligence affect strategic marketing decisions in information analysis phase? How much degree of importance of each product in this step of decision-making?

Q₃: Which products of competitive intelligence affect strategic marketing decisions in phase of determining decision-making options? How much degree of importance of each product in this step of decision-making?

Q₄: Which products of competitive intelligence affect strategic marketing decisions in assessment of the identified option? How much degree of importance of each product in this step of decision-making?

Q₅: Which products of competitive intelligence affect strategic marketing decisions in phase of limiting decision-making options? How much degree of importance of each product in this step of decision-making?

Q₆: Which products of competitive intelligence affect strategic marketing decisions in phase of decision-making and its right implementation? How much degree of importance of each product in this step of decision-making?

Figure 3 shows the research conceptual framework and objective, so that each of competitive intelligence products affect what stage of strategic marketing decisions process. To develop this framework, we should identify competitive intelligence products for organizations, by reviewing literature in the field of competitive intelligence. Now, we are looking to realize each competitive intelligence product is effective in what stage of strategic marketing decision-making process. In other words, each competitive intelligence product on what stage of strategic marketing decisions can help managers and decision makers of organization.

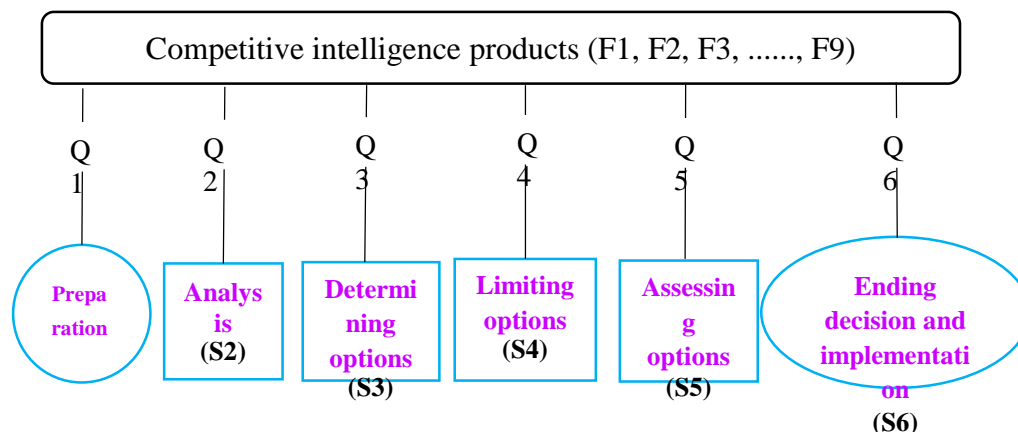


Fig. 3. The research conceptual framework

3.3. The studied population

As in our country, organizational managers have little knowledge on competitive intelligence and its application in strategic decision-making, our selected population was limited. We tried to choose persons as respondents who are familiar with competitive intelligence issues academically and such concepts are available in their organizations. Totally, we distributed 69 questionnaires among the population verbally and through the Internet. Finally, after eliminating invalid questionnaires, there were analyzed 50 valid questionnaires. Table 4 shows demographic data of the respondents.

Table 4. Demographic characteristics of the sample

Demographic variables	Variables' levels	Number	Percent
Work experience	Less than 10 years	30	60
	More than 10 years	20	40
Academic paper	MA	30	60
	MSc	15	30
	PhD	5	10
Expertise	IT	32	64
	Management and decision-making	18	36

3.4. Data collection instruments

A 5-point Likert scale questionnaire was used to collect the required data. The research questionnaire was prepared according to competitive intelligence products and the mentioned strategic marketing decision-making process is previous studies. There were added several other items to competitive intelligence products based on competitive intelligence concepts.

The questionnaire questions include the following sections: the respondent personal data, competitive intelligence products and strategic marketing decision-making process. The respondent identifies Importance degree of competitive intelligence products in each process of strategic marketing decision-making.

3.5. The questionnaire validity and reliability

After preparing the questionnaire, several academic and industrial experts examined its items. Some questions were revised for its better understanding and validity. For example, in the first stage of preparing the questionnaire, we considered the impact of each product of competitive intelligence on strategic marketing decision-making process as parameters of “effective or non-effective”. However, after using the experts' view, the effect of each product on strategic decision-making was considered as a Likert scale (it is necessary to mention that numbers 5, 4, 3, 2 and 1 were considered for too much, much, average, less and much less influences respectively). We removed a series of so-called products as the second layer of competitive intelligence in organizations. There were added a series of competitive intelligence products to the questionnaire based on the concept of competitive intelligence. After making these changes, the questionnaires were distributed among the population.

The Cronbach's alpha was used to calculate reliability of the designed questionnaire. The Cronbach's alpha was separately calculated for the research variables that it is totally more than 70%. Therefore, it can be concluded that the designed questionnaire has the required reliability.

3.6. Data analysis

In the present research, there have been used one-sample t-test and SPSS19 software to evaluate the relationship between variables of F1, F2... F9 (competitive intelligence products) and S1, S2... S6 (strategic marketing decision-making process). In the t-test, if $t > 2$, it can be concluded that there is a significant relationship between the studied variables and the research questions are confirmed statistically. We summarized results of analyzing 50 completed questionnaires by experts of the population in Table 5. By reviewing t-value for any questions, we can conclude that there is statistically confirmed the considered relationship in the research questions and hypotheses.

There is another variable that confirms the questions in the significant level. If Sig-value for any question is less than 0.05 ($\text{sig} < 0.05$), significant level of that question will be confirmed. In addition to t variables and Sig, the following Table shows mean and standard deviation of answers to each question.

Standard deviation has been calculated for better understanding answers to any question. Through mean, we can achieve the important matter that which products have the most and the least effect on strategic decision-making process. For example, if we consider the effect of the answers of F1-F9 on S1, which is stage of preparing information, F1 will have the greatest impact on S1 because average of answers to the relationship between F1 on S1 has the highest value; then as average of answers for F7 have the lowest values, F7 will have the least impact on the step.

Table 5. Results of one-sample t-test about the effects of competitive intelligence on strategic marketing decision-making process

	Number	Mean	SD	Standard error	t number	Df	Sig.
F1S1	50	4.3000	0.73540	0.10400	41.346	49	.000
F1S2	50	4.2200	0.78999	0.11172	37.773	49	.000
F1S3	50	3.6800	0.86756	0.12269	29.994	49	.000
F1S4	50	3.5000	1.03510	0.14639	23.910	49	.000
F1S5	50	2.7600	0.87037	0.12309	22.423	49	.000
F1S6	50	2.5600	0.97227	0.13750	18.618	49	.000
F2S1	50	4.1600	0.71027	0.10045	41.414	49	.000
F2S2	50	4.0200	0.95810	0.13550	29.669	49	.000
F2S3	50	3.7400	0.89921	0.12717	29.410	49	.000
F2S4	50	4.0400	0.75485	0.10675	37.845	49	.000
F2S5	50	3.1000	1.19949	0.16963	18.275	49	.000
F2S6	50	2.8600	0.96911	0.13705	20.868	49	.000
F3S1	50	3.9800	0.95810	0.13550	29.374	49	.000
F3S2	50	3.9000	0.78895	0.11157	34.954	49	.000
F3S3	50	4.12000	0.848528	0.120000	34.333	49	.000
F3S4	50	3.7800	0.93219	0.13183	28.673	49	.000
F3S5	50	3.6000	1.26168	0.17843	20.176	49	.000
F3S6	50	4.1600	0.81716	0.11556	35.997	49	.000
F4S1	50	3.3400	1.13587	0.16064	20.792	49	.000
F4S2	50	4.0200	0.89191	0.12614	31.870	49	.000
F4S3	50	3.5200	0.83885	0.11863	29.672	49	.000
F4S4	50	3.3600	1.00529	0.14217	23.634	49	.000
F4S5	50	3.5200	0.90891	0.12854	27.385	49	.000
F4S6	50	2.6800	1.05830	0.14967	17.907	49	.000
F5S1	50	3.7400	1.04608	0.14794	25.281	49	.000
F5S2	50	3.8000	0.90351	0.12778	29.740	49	.000
F5S3	50	3.1200	1.00285	0.14182	21.999	49	.000
F5S4	50	3.1400	1.22907	0.17382	18.065	49	.000
F5S5	50	2.9600	0.94675	0.13389	22.108	49	.000
F5S6	50	2.5000	1.09265	0.15452	16.179	49	.000
F6S1	50	3.4800	1.07362	0.15183	22.920	49	.000
F6S2	50	3.6800	1.07741	0.15237	24.152	49	.000
F6S3	50	3.0200	0.95810	0.13550	22.288	49	.000
F6S4	50	3.3600	1.00529	0.14217	23.634	49	.000
F6S5	50	3.4400	0.95105	0.13450	25.577	49	.000
F6S6	50	3.5600	0.90711	0.12829	27.751	49	.000
F7S1	50	3.2200	1.40393	0.19855	16.218	49	.000
F7S2	50	3.1000	1.12938	0.15972	19.409	49	.000
F7S3	50	3.2800	0.99057	0.14009	23.414	49	.000
F7S4	50	3.3600	0.89807	0.12701	26.455	49	.000
F7S5	50	3.5600	0.88433	0.12506	28.466	49	.000
F7S6	50	3.7400	1.00631	0.14231	26.280	49	.000
F8S1	50	4.2400	0.77090	0.10902	38.891	49	.000

F8S2	50	3.5200	1.18218	0.16719	21.054	49	.000
F8S3	50	3.6400	1.04511	0.14780	24.628	49	.000
F8S4	50	3.3000	0.99488	0.14070	23.454	49	.000
F8S5	50	2.3600	1.08346	0.15322	15.402	49	.000
F8S6	50	3.7600	0.87037	0.12309	30.547	49	.000

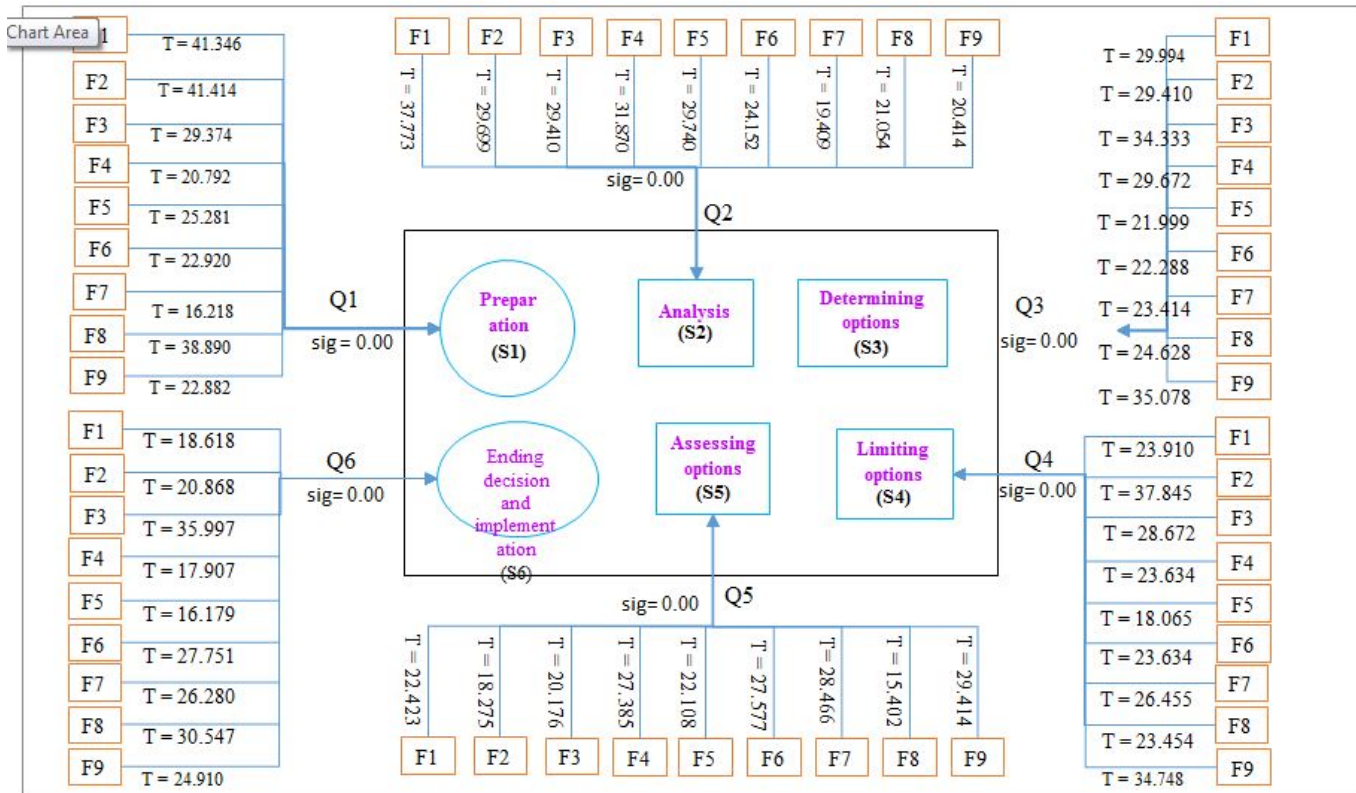


Fig. 4. The research final model

Figure 4 shows the research final model. This model indicates that which products impact on strategic marketing decision-making process. The significance level of the effects has been confirmed for the questions by considering one-sample t-test.

4. Conclusion

The research aimed to investigate the relationships between competitive intelligence products and strategic marketing decision-making process. For this purpose, there was reviewed literature of competitive intelligence and strategic decision-making processes in organizations. By examining the previous conducted studies on applying competitive intelligence in strategic decision-making marketing, it can be concluded that all previous studies have emphasized on the importance of competitive intelligence and its products in strategic decision-making of organization. Each researcher has studied the importance of competitive intelligence from certain aspects. However, in any previous study, there has not been provided a comprehensive model for understanding the relationships between competitive intelligence products and strategic decision-making process. Accordingly, in the present research, we prepared a questionnaire to investigate the effect of competitive intelligence products on each strategic marketing steps of decision-making process, confirm conceptual model and answer the considered questions in this article. Then we submit its results for organizational managers and experts who are related with scopes of decision-making and IT. After analyzing information related to experts' answer on the questionnaire questions as well as using SPSS software and one sample t-test and average of answers for each question, it was concluded that based on the viewpoints of experts and managers, products of F1, F2, ... ,F9 influence decision-making process. Therefore, the experts confirmed the

model that was more comprehensive than previous ones. Using the provided conceptual model in the present research, which is confirmed by experts, organizational managers can answer the questions that whether competitive intelligence in is effective in decision-making, strategic marketing of an organization and each product of competitive intelligence is effective on what stage of decision-making with how much intensely.

5. The research limitations and suggestions for future studies

As in our country, organizational managers have little knowledge on competitive intelligence we could gather data of 50 questionnaires, after distributing the questionnaires among enterprise managers. The second matter is that organizational managers as the research population were selected from certain industries and we could not cover all industries. In other words, our analyses were limited to several certain industries.

Our proposals for future works in the research are as follows:

- ✓ Examining the effect of competitive intelligence products in strategic decision-making using fuzzy models in a particular industry;
- ✓ Providing a practical model to use competitive intelligence products for evaluating and predicting success of organizations in strategic marketing decision-making using data mining tools

References

- Antheil, J. & S. S., (2011). "Action research to support the sustainability of strategic planning". *Planning for Higher Education*.
- Armstrong, J., (1982). "The value of formal planning for strategic decisions: Review of empirical research". *Strategic Management Journal*, pp. 197-211.
- Attaway, M., 1999. "Competitive Intelligence". *Internal Auditor*.
- Belich, T. & Dubinsky, A., (1999). "Information processing among exporters: an empirical examination of small firms". *Journal of Marketing Theory and Practice*, Volume 7, pp. 45-58.
- Brooksbank, R., Kirby, D., Tompson, G. & Taylor, D., (2003). "Marketing as a determinant of long-run competitive success in medium-sized UK manufacturing firms. *Small Business Economics*". p. 259–272.
- Brouard, F., (2006). "Development of an expert system on environmental scanning practices in SMEs: tools as a research program". *Journal of Competitive Intelligence and Management*, Volume 3, pp. 37-58.
- Calof, J. & Smith, J., (2010). "The Integrative Domain of Foresight and Competitive Intelligence and its Impact on R&D Management". *R&D Management Issue*.
- Calof, J. L. & Miller, J., (1997). "The status of CI across the globe". *Proceedings of the 12th Annual Conference of the Society of Competitive Intelligence Professionals*, Alexandria, VA, pp. 213-23.
- Canongia, C. (2007) "Synergy between Competitive Intelligence (CI), Knowledge Management (KM) and Technological Foresight (TF) as a strategic model of prospecting - The use of biotechnology in the development of drugs against breast cancer". *National Institute for Metrology, Standardization and Industrial Quality (INMETRO)*, Brazil.
- Charity, A. Ezigbo & Joseph, I. Uduji (2013) "Manage Competitive Intelligence for Strategic Advantage". *European Journal of Business and Management*, Vol.5, No.3.
- Chen, M., (1996). "Competitor analysis and inter-firm rivalry: towards a theoretical integration". *Academy of Management Review*, Volume 21, pp. 100-34.

- Citroen, C. L., (2011). "The role of information in strategic decision-making". International journal of information management.
- Daft, R. & Macintosh, N., (1981). "A tentative exploration into the amount and equivocality of information processing in organizational work units". Administrative Science Quarterly, June, Volume 26, pp. 207-24.
- Daft, R., Sormunen, J. & Parks, D., (1988). "Chief executive scanning, environmental characteristics, and company performance: a evaluative study". Strategic Management Journal, pp. 123-39.
- Dishman, . L. P., (2007). "Competitive intelligence:a multiphasic precedent to marketing strategy". EJM..
- Eckel, N. & Witmer, P., (2010). "Strategic planning simplified: you might have all the data and background in your hands".
- Felicia, A. & Pugna, I. (2007) "BUSINESS COMPETITIVE INTELLIGENCE-THE ULTIMATE USE OF INFORMATION TECHNOLOGIES IN STRATEGIC MANAGEMENT". The Bucharest Academy of Economic.
- Gilad, B., (1989). "The Role of Organized Competitive Intelligence in Corporate Strategy". Columbia Journal of World Business.
- Guyton, W., (1962). "A guide to gathering marketing intelligence". Industrial Marketing, pp. 84-8.
- Heinrichs, J. H. & Lim, J.S., (2008). "Impact of Marketing Model Application and Competitive Intelligence Utilization on Strategic Response Capability". Journal of Strategic Marketing, Volume 16, pp. 91- 110.
- Herring, J., (1998). "What is intelligence analysis? ". Competitive Intelligence Magazine, Volume 1, pp. 13-16.
- Hiltbrand, T.,(2010). "Learning Competitive Intelligence From a Bunch of Screwballs". Business Intelligence Journal,, pp. Vol: 15, No: 4,.
- Johnson, G., Scholes, K. & Whittington, R., (2005). "Exploring corporate strategy". s.l.:Harlow, UK: FT Prentice Hall.
- Juhari, A. & Stephens, D., 2006. "Tracing the origins of competitive intelligence throughout history". Journal of Competitive Intelligence and Management, Volume 3, pp. 61-82.
- McGonagle, J., John, J. & Vella, C. M., (2004). "Competitive Intelligence in Action". International Management Journal.
- Popa, A. I. & Cucui, G., (2009). "A Framework for Enhancing Competitive Intelligence Capabilities using Decision Support System based on Web Mining Techniques". Int. J. of Computers, Volume IV, pp. 326-334.
- Porter, M., (1980). "Competitive Strategy: Techniques of Analyzing Industries and Competitors". The Free Press.
- Rogojanu, A., Florescu, G. & Badea, L., (2010). "Competitive Intelligence – How To Gain The Competitive Advantage". Metalurgia International, Volume XV.
- Saxby, C. P. (2002) "Environmental scanning and organizational culture" Marketing Intelligence & Planning, Vol. 20 No. 1, pp. 28-34.
- Saxby, C., Parker, K., Nitse , P. & Dishman, (2002). "Environmental scanning and organizational culture". Marketing Intelligence & Planning, Volume 20, pp. 28-34.

- Sullivan, M. (1997) "Using Competitive Intelligence to develop a strategic management Action-Oriented measurement system". John Wiley & Sons, Inc Vol. 8(2) 34-43.
- Vedder Richard G., V. M. (1999). "CEO and CIO Perspectives on Competitive Intelligence". Communications of the ACM, Vol 42. No 8, August 1999.
- Walle, A., (1999). "From marketing research to competitive intelligence: useful generalization or loss of focus". Management Decision, Volume 37, pp. 519-525.
- William, F., (2003). "Uncovering Trade Secrets: The Legal and Ethical Conundrum of Creative Competitive Intelligence". SAM Advanced Management Journal.