

Framework for Selecting an Appropriate E-Business Model in SMEs

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Abstract- The main purpose of this paper is to present a Framework for Selecting an Appropriate E-Business Model in SMEs. This research is an applied one and in terms of the nature is descriptive and survey. Correlation analysis will be used for identifying the proposed model and evaluating its ability for determining relationship among major dimensions of the model. The instrument used for studying the research hypotheses is the questionnaire. In this applied Research, a framework is introduced for selecting e-business in SMEs using survey conducted on 105 managers of small and medium enterprises in Iran (available managers from small and medium enterprises in the research community).

The results that were obtained from mean test, have suggested that among 18 considered factors, three of them, intensity of competitive prices, internal integration on sales and marketing processes and development of IT tools, have most important in selecting an appropriate e-business model for SMEs, and two factors, external integration in financial and human resources activities, are not important factors in determining an appropriate e-business model for SMEs.

In this study we want to determine a framework for selecting an appropriate e-business model in SMEs with generalizing framework provided by Hayes and Finnegan [21] and Hanafizadeh and Shafiei Nikabadi [20], until through this, pave the ground for SMEs in line of e-business that have a major share in the national economy of each country and their move can be accelerated in this direction.

Key Word- *E-Business; Small and Medium Enterprises (SMEs); Economic Control; Process Integration; Innovation; Sourcing*

I. INTRODUCTION

Study of E-business system is essential in the complex world of today. Because traditional business processes have been evolved and going forward to the supply chain and doing electronic business [8]. Electronic Business (E-business) models not only could be a key communication channel to access customers, but also they'll find new customers and maintain sustainable relationships with current customers. So we can consider e-business models as a powerful tool for globalization process [10]. Study about E-business in Iran is so important to the extent that a Plan named E-Business Development Comprehensive Plan was designed systematically and all the organizations involved in this matter, has required running that plan [15].

The SMEs are the majority of enterprises in developing countries. SMEs have the most important impact in the economy of all countries and are considered as the most important motives for economic growth, social cohesion, employment, regional and local development. Such enterprises are considered as one of the most important factors in economic growth and poverty reduction [4]. Therefore,

their access and using from IT tools and new business models that resulting from these tools, is highly regarded.

Many researchers have been done on the field of e-business, but none of them was provided a comprehensive framework for selecting E-business models for SMEs. So, this study is to find important factors to identify an appropriate e-Business model in SMEs. This paper with the help of the conceptual model of Hayes and Finnegan [21] and framework provided by the Hanafizadeh and Shafiei Nikabadi [20] identifies the important factors in determining an appropriate e-business model in SMEs. Consequently, Development of a framework to identify important factors in determining an appropriate E-business model in SMEs is an innovative aspect of the research.

The remainder of the article is organized as follows: the subsequent sections review the literature of the research. The first part of research literature is related to SMEs, and second part discusses about the literature of e-business models and final part of the literature expresses existing research gaps briefly. The third section is to illustrate the conceptual model of this research. Next, research methodology is discussed. Then Findings about development of an appropriate framework for e-business model in SMEs are presented. Finally, a conclusion is expressed.

II. LITERATURE REVIEW

According to the article title, Analytical aspects in theoretical part of research can be divided into two main parts, 1) Small and Medium Enterprises (SMEs) and; 2) E-Business.

A. Small and Medium Enterprises (SMEs)

One of the types of Enterprises is SMEs that constitute about 75% companies in Iran and nearly 30% of Value-added Iranian economy is created by this kind of enterprises [46]. There are a variety of definitions about SMEs. Although some people have defined these kinds of enterprises on the base of some quantitative calculations, such as the number of personnel and assets, the other ones define qualitative methods on how to organize and execute business and trade. However, the most common explanations are based on the number of manpower.

The Enterprises with 100 employees are called Small and Medium Enterprises (SMEs). Furthermore, the United States presents his define on the base of the position of Enterprises in the overall market and knows a small or medium enterprise that has independently ownership and is not dominant and superior in its operational field [27]. These kinds of Enterprise have special features such as" centralized management with short-term vision, strong desire for independence, intuitive

decision-making, informal and unscheduled processes, Limited Products, inability to contrast with larger companies in its industry, Limited control on the outside environment and too little willingness to accept the risk" [28].

In Iran, Small Industries and Industrial Parks Organization have introduced units with less than 50 people as small units and according to the sixteenth chapter of Industrial Development Strategy book in part of Position and role of mentioned industry in Iran, unit with less than 150 people has been defined as SMEs [24]. In this research SMEs have been chosen while the numbers of their employees are between 100 and 150.

B. E-Business

Business model is an organizational approach to gain income with a reasonable amount of costs and creating, capturing and gaining the Business Value [17].

E-business models are a description from Work processes that have been used in Virtual or electronic environments such as the World Wide Web [5]. These models describe the roles and relationships between customers, consumers, partners and suppliers who are seeking to determine and identify the main product flows, information and money and to identify major benefits for shareholders and participants in business and act using the Internet to conduct transactions, create value for customers and other stakeholders [14]. So, target of this kind of business can be considered as types of new business in the automatically making business transactions and workflow [1], increasing sales, building trust, widespread awareness of brand, services with continuous improvement, providing relevant information and updated, Major Business Development, create the continuous and permanent relationship with all stakeholders [18], increasing quality and Flexibility of information and competitive advantage [3]. Therefore, e-business is looking for digitalizing value chain and business processes and with creating the new value, is looking forward to achieving financial and operational excellence in the organization [14].

So, the most important function can be expected from these models are internal communication and interaction with other systems and also with automating various processes in the organization, which most of unnecessarily processes are eliminated. So, performance will be promoted by increasing processing speed, reaching to automation level and reducing errors. Finally, this system improves relations, increases customers and business partner's loyalty and also amplifies organization moves toward the Profitability and competitive advantage [40].

The effect of E-business on business models can be known on three levels: resources, organizations activities and presentation of proposals [22]. E-business would be effective on all resources such as money, knowledge, facilities and equipment, Qualifications, skills, people, markets and even sell, product offering an even it may lead to cause new resources such as software and protocols. These resources are looking for more coordination and more control for division of labor and activities of a business model [22]. Thus, it paves the ground for creating change in organizational activities and processes and finally method of offering Product and service will be different. So, we can say that e-business is a component of business models that can be employed in different parts of business models.

1) Criteria for Classifying E-Business Models:

To classify types of business models, different criteria and indicators should be known that the most important of them are such as: 1) income and position in value chain; 2) Patterns of interaction and integration in value chain; 3) integration of operations and rate of innovation; 4) Core activities and balance of the price and value; 5) Economic control (self-organizing and hierarchical market) and value integration; 6) Sourcing (how does the firm buy what? That can be in the two types, Systematic and Spot). However, they can be divided to five dimensions such as economic control, operational integration (Internal integration), integration in the supply chain (External integration), innovation and sourcing [21]. In the following section, a brief description of each one is presented:

a) Economic Control:

Indicates amount of being hierarchical, or be self – organizing of a market [20]. For making operational this feature, five forces should be evaluated. The five forces are as following:

- *Suppliers' Bargaining Power*: This force includes such dominating the market of raw materials, the share of raw materials in the collection of assets, conversion costs, the amount of turnovers and focusing on suppliers;

Hypothesis 1) "Suppliers' Bargaining Power" is one of the most important factors in selecting an appropriate e-business model in SMEs.

- *Buyers' Bargaining Power*: including such as the domination of customers on the product, Product diversification, Willingness to use alternative products and making reverse integration;

Hypothesis 2) "Buyers' Bargaining Power" is an important factor in selecting an e- business model in SMEs.

- *Threat of Industry New Comer Competitors*: including such as advantages of scale, differentiation, the need for asset, variable costs, access to Distribution channels and raw materials, governmental policies and access to the learning curve;

Hypothesis 3) "Threat of Industry New Comer Competitors" is an important factor in selecting the e- business model in SMEs.

- *Competition among Existing Companies in Industry*: including items such as price sensitivity, the importance of the brand, the number and power of competitors in control of market;

Hypothesis 4) "Competition among Existing Companies in Industry" is an important factor in selecting e-business model in SMEs.

- *Threat of Replaced Products or Services in Industry*: including replacement of the products with products of the other companies [37].

Hypothesis 5) "Threat of Replaced Products or services in Industry" is an important factor in selecting the e- business model SMEs.

b) Functional integration (Internal Integration): Pointing to amount of integration and coherence between a set of activities that exist in a business model [20].

c) Supply chain integration (External Integration): Points to amount of performance integration (functions) and processes of a business with other members and its partners in supply chain [20].

In an e-business environment, Integration of information and organizational design are considered as an important factor in implementing strategies and organizational learning to create a collaborative environment [6]. To evaluate the different types of integration, Enterprise Resources Planning (ERP) system can be analyzed. Generally, the set of processes and tasks in ERP can be divided into the following four categories[11]:

- *Production, operation and logistic activities:* including Production planning, Material and capacity requirements planning, Inventory, quality assurance, transportation, maintenance and distribution;

Hypothesis 6) Integration of "production, operation and logistic activities" with other internal processes of SMEs is an important factor in selecting e-business model.

Hypothesis 7) Integration of "production, operation and logistic activities" with other processes of the members of the supply chain of SMEs is an important factor in selecting the e-business model.

- *Sales and marketing activities:* including. Set-point ordering, Sales planning, Contracts, Distribution channels, Pricing And after-sales services;

Hypothesis 8) Integration of "sales and marketing activities" with other internal processes of SMEs is an important factor in selecting the e-business model.

Hypothesis 9) Integration of "sales and marketing activities" with other processes of the members of the supply chain of SMEs is an important factor in selecting the e-business model.

- *Financial activities:* including industry accounting, benefit analysis, general office, liquidity management, receipts and payments, investment and budget allocation;

Hypothesis 10) Integration of "financial activities" with other internal processes of SMEs is an important factor in selecting e-business model.

Hypothesis 11) Integration of "financial activities" with other processes of the members of the supply chain of SMEs is an important factor in selecting the e-business model.

- *Human resources activities:* including Employees Profile, Human resource planning, Classification of occupations and training.

Hypothesis 12) Integration of "human resources activities" with other internal processes of SMEs is an important factor in selecting the e-business model.

Hypothesis 13) Integration of "human resources activities" with other processes of the members of the supply chain of SMEs is an important factor in selecting the e-business model.

d) Innovation:

Organizational and technological innovations are considered as a key factor to improve competitive performance of organizations and countries and also in long term growth in the world economy [16]. Tornatzky and Fleischer in their innovation model have classified innovation in three dimensions: organizational, technological and environmental [44]. Chong believes that characteristics of organizational innovation are vital elements in successful implementation of e-business [13]. Hayes and Finnegan also have mentioned factors affecting on innovation in four dimensions: Development of Information Technology tools, Degree of decentralization and flexibility in duties, Degree of Competitive Price and Degree of centralization in industry (market share) [21]. The first case is related to technological dimension. The second one is related to organizational factors, and the last two cases are related to environmental dimension [20].

Hypothesis 14) "Development of Information Technology tools" in SMEs is an important factor in selecting e-business model.

Hypothesis 15) "Degree of decentralization and flexibility in duties" in SMEs is an important factor in selecting e-business model.

Hypothesis 16) "Degree of Competitive Price" in SMEs is an important factor in selecting e-business model.

Hypothesis 17) "Degree of centralization in industry (market share)" in SMEs is an important factor in selecting e-business model.

e) Sourcing:

It refers to methods that an organization provides its inputs. Sourcing can be into forms, systematic or Spot [21].

Hypothesis 18) "Supply of producing and operating resources" in SMEs is an important factor in selecting the e-business model.

TABLE I CLASSIFICATION OF VARIOUS ELECTRONICS BUSINESSES MODELS

[42,43]	E-Shop ; E-Procurement; E-Mall ; E-Auctions; Virtual Community; Collaboration Platforms; Third-Party Marketplace; Value Chain Integrators; Value Chain Service Provider ; Information Brokerage ; Trust Services	
[30]	POSTER And BILLBOARD; ON-LINE YELLOW PAGES; CYBER BROCHURE ; VIRTUAL STOREFRONT; SUBSCRIPTION ; ADVERTISING;	
[41]	E-Tailor; Portals; Community Facilitator; Informediaries	
[2]	Focused Distributor	Retailer; Marketplace; Aggregator; Informediary; Exchange
	Portals	Horizontal ; Vertical; Affinity
	Producers	Manufacturer; Service provider; Educator; Advisor; Information and news services; Customer-Supplier

	Infrastructure Provider	Infrastructure Portals
[39]	Business to Business; Business to Customer; Customer to Customer; Customer to Business	
[49]	DIRECT CUSTOMER; FUL SERVICE PROVIDER; INTERMEDIARY; WHOLE OF ENTERPRISE; SHARED INFRASTRUCTURE; VIRTUAL COMMUNITY; VALUE NET INTEGRATOR; CONTENT PROVIDER	
[45]	E-Shop; E-Auction; Third Party Marketplace; Value-Chain Integration; The Hub Or Portal; Value-Chain Service Providers; Information Brokerage ; Trust Services; Proceed Outsourcing; Virtual Organization ; Application Service Provider	
[29]	Business to Business; Business to Customer; Business to Public Administration; Public Administration to Public Administration; Public Administration to Customer; Direct Exchange between Consumers	
[38]	Brokerage ; Advertising; Information; Intermediary; Merchant; Manufacturer (Direct) Affiliate; Community; Subscription; Utility	
[31]	Commission- Based; Advertising- Based; Markup-Based; Production- Based; Referral- Based; Subscription- Based; Fee-For-Service-Based	
[33]	Portals; Market Makers; Product/Service Providers	
[9]	Sourcing; Ownership; Service Based; Customer Relationship Management; Supply Chain Management; Interaction ; Revenue	
[25]	Content Provider; Direct To Customer; Full Service ; Provider; Value-Net-Integrator; Shared Infrastructure; Intermediary; Virtual Community; Whole-of-Enterprise	

TABLE II EVALUATIONS OF DIFFERENT MODELS OF ELECTRONIC BUSINESS WITH FIVE CRITERIA [21]

Business models	Economic Control	Functional Integration	Supply chain Integration	Innovation	Sourcing
E-shop	Low	Low	Low	Low	Systematic
E-mall	Low	Medium	Low	Medium	Systematic
E-procurement	Medium	Medium	Medium	Medium	Systematic
E-auction	Low	Medium	Medium	Medium	Spot/systematic
Information brokerage	Low	Low	Low	High	Not applicable
Trust services	Low	Low	Low	Medium	Not applicable
Third party marketplace	High	High	High	High	Spot/systematic
Virtual communities	Medium	Medium	High	High	Not applicable
Value-chain integrators	High	High	High	High	Not applicable
Value-chain service providers	Low	Medium	Medium	High	Not applicable
Collaboration platforms	Low	High	High	High	Not applicable

2) E-Business Models:

E-businesses can be studied and classified from different point of view. Table 1 offers an example of one of the most common and the most practical e-business model that is introduced in this study as a reference model has been proposed by the Timmers [43]. In this model, 11 types of e-business models based on two criteria (amount of integration

between multiple functions and degree of innovation) have been introduced.

In Fig. 1, the horizontal axis represents the innovation rate and shows the lowest degree of innovation (right) to the highest degree of innovation (left). Vertical axis indicates the amount of integration and cohesion between functions and

also shows a wide range of single function Integration (bottom) to Multiple Functions Integration (upward).

Hayes and Finnegan have found during their investigation the results that are mentioned in Table 2 to evaluate various e-business models according to five criteria; Economic Control, Functional integration (Internal Integration), Supply chain

integration (External Integration), Innovation and Sourcing [21].

The parallelism among the different types of e-business models can be indicated in three features, access to a large number of actors and products, Richness in information and communication and Digitally Display [51].

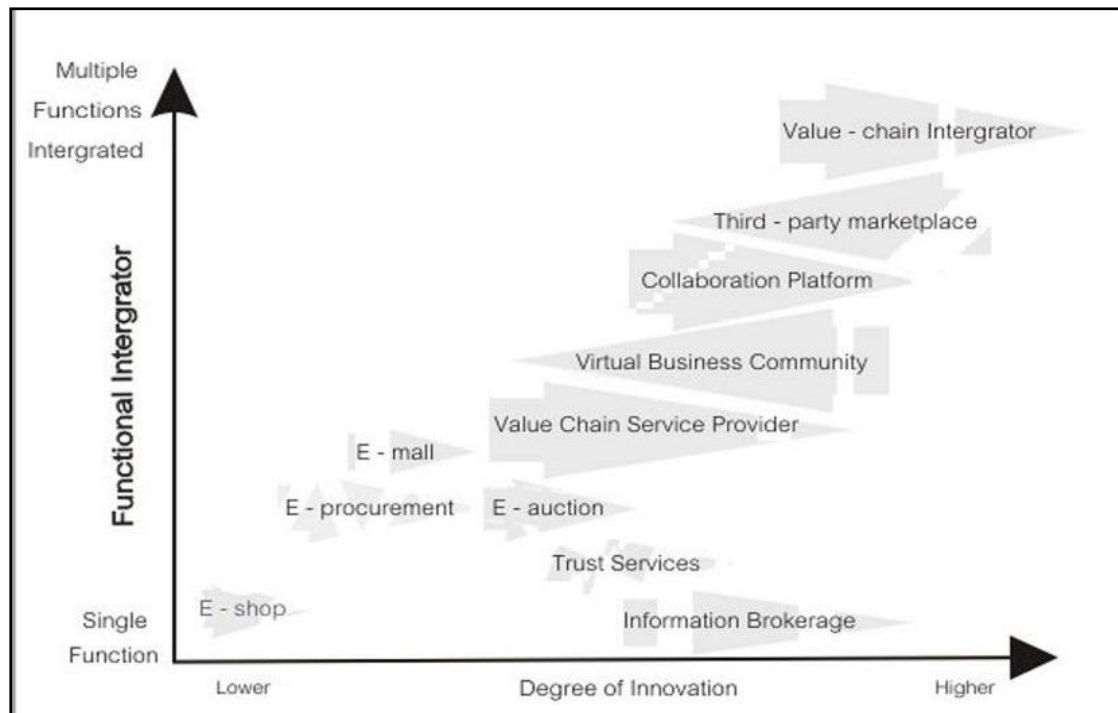


Fig. 1 Types of e-business models [43]

3) Research Synthesis

Different researches have been done on use of e-commerce in SMEs and success factors of e-commerce implementation in these companies. So that 120 journals in 2003 to 2006 and at least 28 journals during 2007 to 2008 have published articles about e-commerce in SMEs [35].

While e-commerce is only an under part of e-business, e-business included all processes of business such as production, administration, finance, human resources, Research and Development (R&D) and trade. Some recent researchers in the field of e-business such as Zhu et al. [50] have designed a model for e-business implementation. This model includes some dimensions such as the IT infrastructure, IT expertise, e-business knowledge, organization's domain, and size of organization and consumer's readiness. In this study, there are more attended to internal dimensions not to company relations with its partners throughout the supply chain and a specific framework has not been proposed to select a suitable e-business model. Another research is research of Hourali et al. [23] that provides a model for e-readiness in SMEs or research of Magal et al. [32] that is only for evaluation of e-business applications in SMEs and also the research of Wang and Lin [48] that is only focused on the key factors in successful implementation of B2B e-business types in SMEs. Another research related to the use of e-business in SMEs has done on tourism industry and its comparison with large companies [7]. Jones et al. [26] also examine usage and deployment trends of e-business technologies within the small and medium-sized enterprise (SMEs) community in Wales, since the turn of the millennium. The Noteworthy point in this

research is that any of them has not provided a specific model or framework for selecting an appropriate e-business Model in SMEs.

On the other hand, there are several studies that have done on introduction of e-business (such as Table 1) and among them only Timmers [43] has used two indices, innovation and integration, to present e-business models. However, generally, He has not done any research on appropriate e-business model selection in a variety of enterprises. Voola et al. [47] also are looking for e-business adoption to increase performance merely with Resource-Based View.

In recent studies, only the articles of Hayes and Finnegan [21] is done on providing a general model for selecting the e-business model, and it is not considering each of these generally dimension's details. In another research from Hanafizadeh and Shafiei Nikabadi [20], a framework was introduced for e-business selection in managerial holding companies with chain structures. Furthermore, in this study, we want to determine a framework for selecting an appropriate e-business model in SMEs with generalizing the framework provided by Hanafizadeh and Shafiei Nikabadi [20], until through this, pave the ground for SMEs in line of e-business that have a major share in the national economy of each country, and their move can be accelerated in this direction.

III. CONCEPTUAL MODEL OF RESEARCH

Using a combination of Hayes and Finnegan [21] and Hanafizadeh and Shafiei Nikabadi [20], as the five criteria and related factors to each criterion are illustrated in Fig 2.

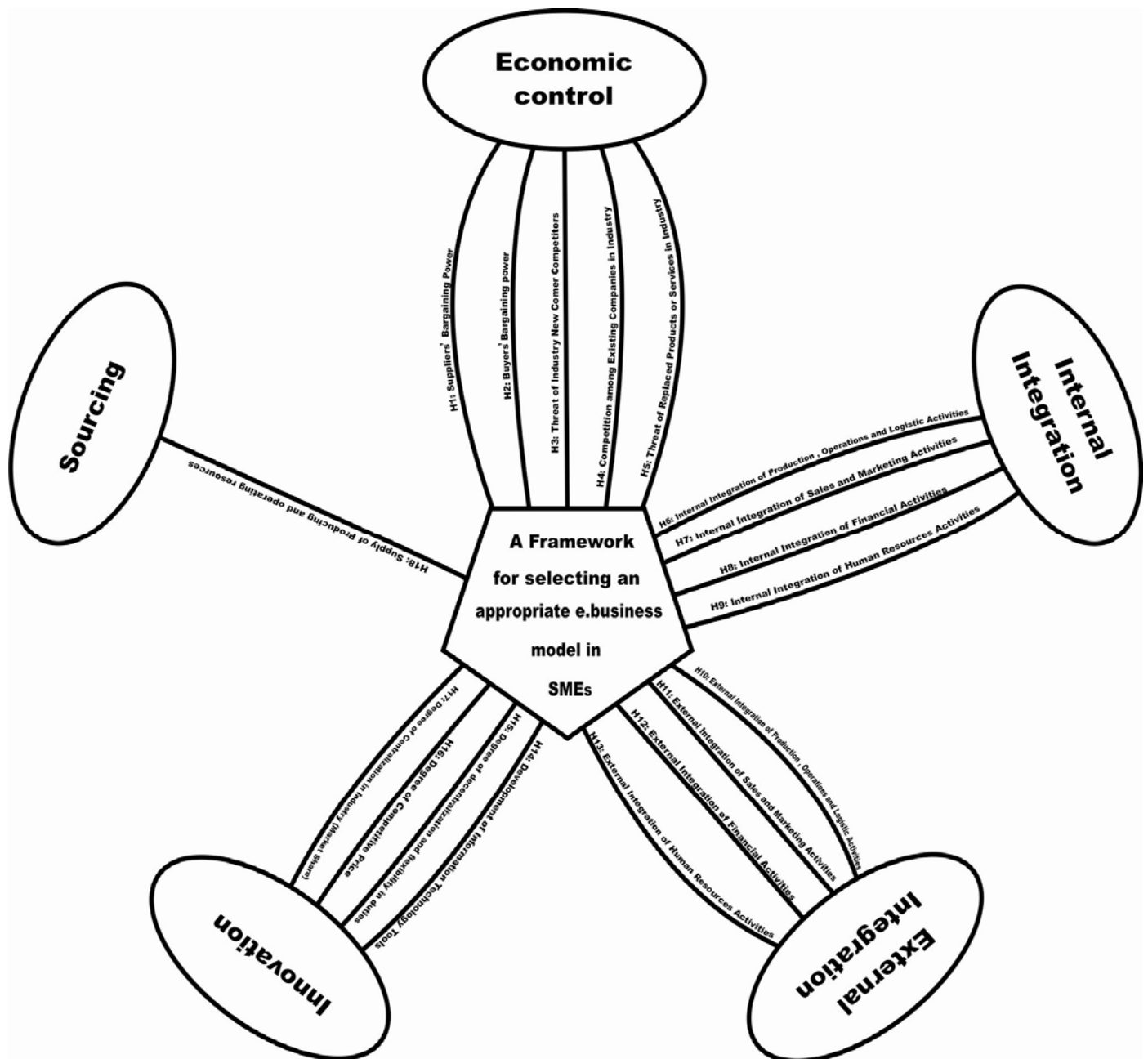


Fig. 2 Conceptual model of research

IV. RESEARCH METHODOLOGY

This research is an applied one, and in terms of the nature and methods is descriptive and survey. Correlation analysis will be used for identifying the proposed model and evaluating its ability for determining the relationship among major dimensions of the identified model.

The instrument used for studying the research hypotheses is the questionnaire. The designed questionnaires were personally distributed among a number of experts from statistical population for assessing validity of the instrument. To measure reliability of the designed questionnaire Cronbach's alpha coefficient was used. Cronbach's alpha for reliability of the questionnaire was obtained ($\alpha = 0.86$) and since it is above 0.7, Reliability has been approved [19].

Statistical population is a set of the managers of 105 SMEs from different enterprise, including chemical industries (18

managers), office machinery (8), electronics components (19), Food (17), Wood products (10), Plastic industry (15) and Textile industry (18), that are available for the researchers. Among SMEs, managers have been selected randomly. More than 80 percent of respondents are graduated and more than 75 percent of them have more than five years' experiences (Response Rate: 93 %).

Furthermore, Kaiser-Meyer-Olkin Index (KMO) was used for sampling adequacy. The value of this index is equal to 0.71 and because this value is greater than 0.6, Sampling Adequacy of this study was also approved.

V. FINDINGS AND IMPLICATIONS

Mean test was used for evaluating the research hypotheses. Table 3 represents details of the approval or non approval of each factor. The Factors that their validate test (sig) are more than 5 percent, have not been approved [34].

TABLE III SURVEY RESEARCH HYPOTHESES

Hypotheses	Test Value = 3					
	t	Mean	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower limit	Upper limit
Suppliers' Bargaining Power	6.488	3.88	.000	.875	.60	1.15
Buyers' Bargaining Power	7.002	4.08	.000	1.075	.76	1.39
Threat of Industry New Comer Competitors	6.132	3.90	.000	.900	.60	1.20
Competition among Existing Companies in Industry	6.846	4.03	.000	1.025	.72	1.33
Threat of Replaced Products or Services in Industry	7.654	4.08	.000	1.075	.79	1.36
Internal Integration of Production, Operation and Logistic Activities	6.512	3.98	.000	.975	.67	1.28
Internal Integration of Sales and Marketing Activities	8.988	4.23	.000	1.225	.95	1.50
Internal Integration of Financial Activities	5.894	3.78	.000	.775	.51	1.04
Internal Integration of Human Resources Activities	3.514	3.58	.001	.575	.24	.91
External Integration of Production, Operation and Logistic Activities	3.846	3.55	.000	.550	.26	.84
External Integration of Sales and Marketing Activities	5.188	3.70	.000	.700	.43	.97
External Integration of Financial Activities	.422	3.05	.675	.050	-.19	.29
External Integration of Human Resources Activities	-1.818	2.75	.077	-.250	-.53	.03
Development of Information Technology tools	11.008	4.18	.000	1.175	.96	1.39
Degree of decentralization and flexibility in duties	2.306	3.30	.027	.300	.04	.56
Degree of Competitive Price	9.316	4.23	.000	1.225	.96	1.49
Degree of centralization in industry (market share)	7.026	3.90	.000	.900	.64	1.16
Supply of producing and operating resources	7.002	4.08	.000	1.075	.76	1.39

According to the above test results, developed model for selecting an appropriate e-business model for SMEs will be as illustrated in Fig 3.

Among the 18 proposed hypotheses, two hypotheses, Integration of financial and human resources activities with other functions and processes of SMEs in supply chain members were not confirmed. This can be because the SMEs know their financial information as confidential information, and it can be resulted from lack of complete and perfect relationship among the partner companies. On the other hand, these companies don't sense any need to human resources processes integration with their partner companies, and they know this only unique within its company. It also had looked at the Holding companies [20]

According to Table 3 and conceptual model of research, it can be found that internal and external integration is the most important factors, and internal and external integration is a key factor in establishing and selecting an appropriate e-business model. Chong et al. [12] have cited the impact of communication among enterprises in e-business implementation. In this study, it is indicated that communication among enterprises in supply chains of SMEs will be an effective factor in e-business implementation but in their research, the functional type of communication is not known in the chain. However, in present research, it is indicated that among four key functions within Supply chain

that need to have integrity, only two external integrations in sets of production - logistics and sales – marketing activities have high importance and instead, external integration of financial and human resources activities are ineffective factors in selecting an appropriate e-business model.

Another major goal of research is to assess the importance of each of these factors in the above framework in SMEs owing to this weighty matter Friedman test is used.

According to Table 4, only in economic control, the claim of being the same priority and rank of these five factors can be accepted (Because it has a sig. More than 5 percent) and in another dimension, the claim of being equal factors priority will be rejected.

Among the above factors, Intensity of competitive price allocates most importance to himself. This can be known as high competition among the SMEs in an industry, Due to this fact that this matter is a prerequisite to survive in the competitive industry and dynamic market. Internal Integration of sales and marketing processes are the next important factors. This also is a significant cause for marketing and sales activities that is more important than other tasks in this kind of companies. The cause of such a high factor point can be seen in highly importance of competitive price intensity and the existence of competition in industry.

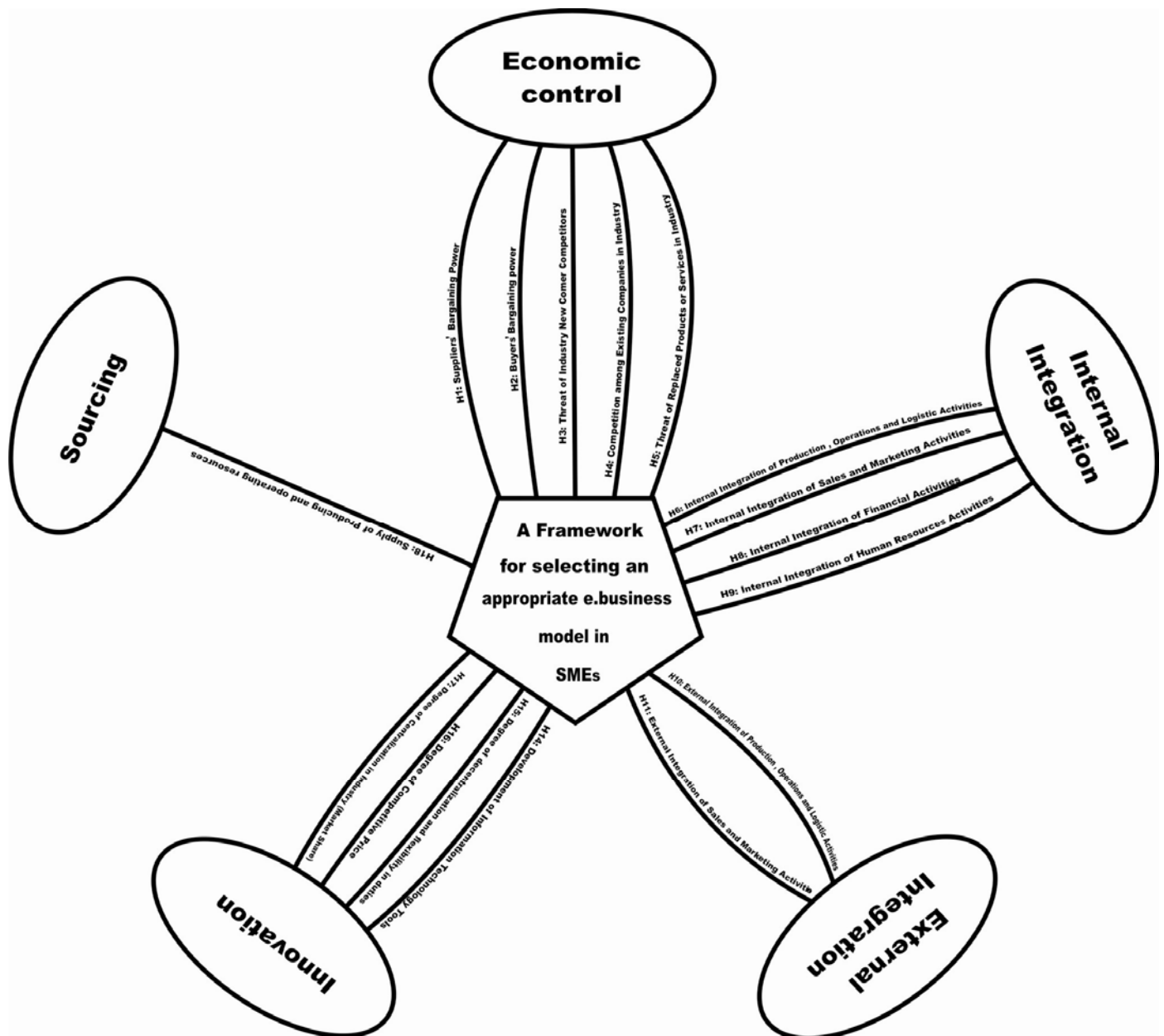


Fig. 3 Developed Model of research

TABLE IV EVALUATION OF THE IMPORTANCE OF EACH FACTOR THROUGH THE AVERAGE RATING OF EACH FACTOR IN THE FRIEDMAN TEST

	Indicators	Mean Rank in dimension	Sig.	Total Mean Rank
Economic Control	Suppliers' Bargaining Power	2.73	0.0165	9.78
	Buyers' Bargaining Power	3.09		11.00
	Threat of Industry New Comer Competitors	2.94		10.31
	Competition among Existing Companies in Industry	3.08		10.93
	Threat of Replaced Products or Services in Industry	3.18		11.14
Internal Integration	Internal Integration of Production, Operation and Logistic Activities	2.54	0.011	10.48
	Internal Integration of Sales and Marketing Activities	2.95		11.96
	Internal Integration of Financial Activities	2.26		9.25
	Internal Integration of Human Resources Activities	2.25		8.80

External Integration	External Integration of Production, Operation and Logistic Activities	2.88	0	8.03
	External Integration of Sales and Marketing Activities	3.06		8.98
	External Integration of Financial Activities	2.21		5.20
	External Integration of Human Resources Activities	1.85		4.16
Innovation	Development of Information Technology tools	2.84	0	11.53
	Degree of decentralization and flexibility in duties	1.69		6.55
	Degree of Competitive Price	3.01		11.98
	Degree of centralization in industry (market share)	2.46		9.78

Development of IT tools is another important factor in such enterprises. So it can be inferred that SMEs require development of IT tools in their business activities for increasing innovation and competitive force to process integration achievement. Other important factors respectively are as follows: The threat of substitute products/services and the bargaining power of customers (buyers). With a comprehensive look at these important and superior factors, it can be concluded that attention to various factors related to customer and competitive advantage achievement in the market are the most important factors.

Another important point is that the existence of integration

among the human resources activities to select a suitable e-business model is essential in SMEs, whereas this factor in holding companies with chain structure has been ineffective and external integration of human resources activities is known as an ineffective factor to select a suitable e-business model in all types of enterprise (Holding, Small or Medium) (Compared with results of Hanafizadeh and Shafiei Nikabadi's research [20]).

In this study also the correlation analysis is used to check the kind of relation among the developed model dimensions. The amounts of correlations among the main dimensions of the developed model are as illustrated in Table 5.

TABLE V CORRELATION BETWEEN MAJOR DIMENSIONS IDENTIFIED IN RESEARCH MODELS FOR SELECTING APPROPRIATE ELECTRONIC BUSINESS MODEL IN SMALL AND MEDIUM ENTERPRISES (WITH 95%)

	Economic Control	Internal Integration	External Integration	Innovation	Sourcing
Economic Control	1	*	*	*	*
Internal Integration	0.136	1	*	*	*
External Integration	0.468	0.462	1	*	*
Innovation	0.339	0.637	0.261	1	*
Sourcing	0.180	0.455	0.390	0.518	1

According to results considered in Table 5, it can be concluded that there is a direct positive correlation between External dimensions of the organization (economic control and processes external integration) and according to comments of some managers participating in this study, it can be concluded that a good economic control by SMEs would be effective in their desire toward processes external integration with the chain members. Furthermore, there are direct positive correlations among the different types of integration, and as such it can be concluded that with existence of proper integration in set of internal processes, it could be provided a good field for integration. Furthermore, tendency to create a strong internal integration will be an appropriate factor to increase the power of organizational innovation and create innovations in various aspects can be observed about the existence of integration. Moreover, Existence of strong internal integration will be guiding SMEs in appropriate and more regular source finding. Now SMEs at the mercy of measuring these factors, determining the general dimensions and using table 2 can determine and identify the appropriate type of their e-business model.

VI. CONCLUSIONS

Study of the e-business system in today's complex and turbulent world is essential. Because at the mercy of a phenomenon named the Internet and its rapid penetration in all different businesses, existent Processes in the traditional business has been transformed, and it changes the traditional Business processes and leads the enterprises to quick and global access total speed in the supply chain and doing business electronically.

In this research, with expanding Hayes and Finnegan's general model [21] and generalizing the framework of Hanafizadehh and Shafiei Nikabadi [21], we are looking for providing a framework for selecting an appropriate e-business model for SMEs. In this research 18 indicators is introduced for selecting an appropriate e-Business model and then, with the help of a survey, main indicators for selecting a suitable e-Business model for SMEs are identified. Next they are ranked with the help of Friedman's test.

In the specified framework, all factors except external integration of financial activities and human resources were approved. By comparing this framework in SMEs can be

found that external integration of human resources activities, whether holding company and large enterprise or SMEs, is one of the factors that is not effective in determining and selecting an e-business model.

On the other hand, decentralization factor and existence of flexibility in holding companies duties did not the main factor for selecting an appropriate e-business model why this factor can be known as the existence of the dominant bureaucracy in holding companies, while this factor is considered as the main factor in selecting an appropriate e-business model in SMEs. Moreover, three factors, degree of competitive prices, internal integration of sales and marketing processes and development of IT tools are the most important factors for selecting an e-business model in SMEs.

So, it can be concluded that SMEs focus more on customers in a chain and for e-business implementation, attention to various factors related to customer and competitive advantage achievement in the market are the most important factor.

Finally, it is noteworthy that the proposed framework of research and its results are reliable only in Iran's scope and in SMEs and generalizing these results to the entire population from each aspect or enterprise with other structures or in different industries should be done with caution and future investigations.

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