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Application of data-based theory in designing the capabilities of technological platforms of the cosmetics industry

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Today, new technologies have changed the global financial panorama and communities. Due to the advancement of new technologies and the competitiveness of the company, the nature of innovation has changed. In order to take full advantage of the potential of technological transformation, companies must incorporate platforms into their operations. The purpose of this have a look at became to designing and explaining the model of technological platforms capabilities within the cosmetics enterprise. The prevailing take a look at is carried out in terms of motive and descriptive in phrases of the way to acquire information. The information evaluation method locations this study within the discipline of qualitative research of interpretive type. The study population in the present study consists of all university professors in the field of business management and information technology management. In order to design the model of the present study, interviews were conducted based on purposive and theoretical sampling methods to the extent of theoretical saturation. In this study, in order to evaluate the validity of the interview from the approach of credibility or credibility criteria including the use of negative case strategies, triangulation, rich explanation and reliability approach including the use of third parties and also repetition of the coding process based on the validity model. Qualitative research by Lincoln and Guba (1982) was used. In evaluating the reliability of the interview, two strategies of using third party as well as repetition of coding were used (Lincoln and Guba, 1985). The analysis of the interview data using the data-based method was based on the systematic approach of Strauss and Corbin (1998), based on three stages of open, axial and selective coding. Data coding showed the extraction of 16 selected codes, 60 axial codes and 248 open codes which were classified based on causal conditions, central phenomenon, interfering factors, contextual factors, strategies and consequences.

Key words: *DEA, platform, technological platforms capabilities, cosmetics industry*

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1- Introduction

Developing an innovative new product is time-consuming and high priced for groups (Broeke et al., 2021). As an end result, contemporary shrewd manufacturers have resorted to the design and manufacture of product platforms, relying on generation improvements (Raudberget et al., 2019). Businesses these days confront problems that include an enormous upward thrust in competitors, technological developments, different consumer tastes, and short product lifetimes (Dadfar et al., 2013), all of which make introducing and diversifying items difficult (Hwang et al., 2020). Many firms inside the worldwide financial system these days use product diversity as an approach for responding rapidly to changing patron necessities, product transformation, organizational sustainability (Johnson & Kirchain, 2014; Aljanabi, 2020), and improving competitiveness

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(Johnson & Kirchain, 2014, Yin et al, 2020). To attain this, continuous innovation is a perspective that has to be considered (Lizarelli et al., 2021). But, it should be stored in thoughts that the introduction of recent items is continually connected with business risks in phrases of reaching marketplace goals (Mendoza-Silva, 2020), and that specific variables, which include technical turbulence, have an effect on its fulfillment or failure (Dervitsiotis, 2010). Candi et al (2013) propose two strategies for reducing the product improvement cycle and supplying flexibility to address uncertainty and reduce predictive mistakes in new product development. Among these, flexibility is one of the maximum essential and effective techniques of controlling improvement risks (Candi et al, 2013). As researchers have argued, the significance of capability in a company's innovative strategies leads to lengthy-time period business survival, the capability to accumulate and reallocate sources (Katsuhiko & Hitt 2004; Sanchez 1995; Shimizu & Hitt 2004), and well-timed adaptation to exchange Environmental (Combe & Greenley 2004; Eisenhardt & Martin 2000; Teece et al., 1997, Zhao & Wang, 2020). Not at all like prior unused item advancement methods in which businesses are given a portfolio of particular merchandise, today's approach to upgrading adaptability within the company operating structure is to set up a platform and produce families of diverse products (Meyer et al., 2018; Islam et al., 2020). Platform-based techniques empower businesses to explore the different qualities of their offerings whereas still assembly consumers' needs and desires. As a result, a few businesses have actualized item family development procedures (Meyer et al. 2018). One of the inspirations for utilizing the stage approach, concurring to Ale (2017), is to reply rapidly to shopper inclinations and give personalized administrations (Ale, 2017). The advantages of a platform-based strategy include leveraging the costs of offering variety through common components in the firm's operations and proposals, concurrently obtaining economies of scale, operational flexibility, attaining efficiency, and decreased expenses and product development time (Gawer & Cusumano, 2014). Given the concerns mentioned, one of the criteria for future company survival is the creation of platforms, and businesses who wish to be sustainable, as well as expand and acquire market share, will have to embrace and act in accordance with this strategy. It is essential to determine the sample and structure with the intention to power their technical platform development (Pasche et al., 2011; Yablonsky, 2018; Wang et al., 2021). Firms need to draw their improvement techniques based totally on platform technique and use of technological platforms to respond to a huge variety of desires and tastes, in addition, to live on inside the turbulent marketplace of this enterprise, given the enlargement of customer expectancies and the development of competing agencies inside the cosmetics industry. Cosmetics have a total turnover of about $170 billion per year. The Iranian cosmetics industry is supposed to be worth $2.2 billion, with domestic manufacturers accounting for 30% of the total. If domestic producers have the capability to handle more than 100 percent of domestic demand, this is possible. Such high figures demonstrate the value of this industry's goods and services. Also, since this industry employs a significant proportion of individuals and provides economic benefits to people all over the world, we can meet new and evolving customers' requirements by developing products based on technological platforms identical that are used by other industries, and we can obtain a position in the firm’s competitive market for sale by developing products based on technological platforms. As a result, the scientific literature intends to reduce a knowledge gap in the field of technological platforms, especially in the cosmetics industry.

Clearly, the study findings will assist domestic producers in aligning with international competitors and realizing domestic capabilities to compete.

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Taking a platform approach to technology would also expand a company's versatility and resilience, as well as its willingness to shift strategic direction. Despite outlining some areas about what the platform is, platform dynamics and tactics, platform leadership, and platform implications, thematic literature on the platform is insufficient and the architecture of the product platform and the prototype based on the specifications and capabilities have not been studied. Researchers haven't explored into the capabilities that needed to build technical platforms in a company or industry in their study. To a considerable extent, developing societies and the cosmetics industry would fill the research gap in this field. Given the above, and in terms of the reality that no significant amount of research has been published in the fields of research and industry, so the present study deals with the application of data-based theory in designing the capabilities of technological platforms of the cosmetics industry.

2- Theoretical foundations of research

- Technological platform capabilities

As early as 1574, the foundation was used to denote "a model, a principle, an idea, a model and a model", according to the Oxford dictionary. This term refers to a group of components within a larger structure that are also interconnected. In addition, all forms of technology products, partnerships powered by multi-product networks and transactions between different groups of market players have been integrated into the system architecture (Choi et al. 2019). In other words, the term can be used to describe management phenomena at the level of products, systems and production lines in industries, sectors and large warehouses (Thomas et al., 2014; Chursin et al. ., 2014). Associates, 2021). The terms Gawer and Kocumano platforms claim to be internal platform enterprise platforms because the platform has been used within enterprises in this sense, first used in the field of growth of new products in the early 1990s. This platform has been studied in many scientific publications, including operations management and new product creation in the context of technology strategy (Gawer & Cusumano, 2014; Singh et al., 2020). In the midst of a wave of overlapping research, each of these academic literature examines platforms, each focusing on product, technological structure, and replacement (Harland & Yörür 2015; Popovic et al., 2021). This framework has others in marketing, software engineering, economics, and manufacturing firms (Harland et al. 2015). In this respect, Meyer & Lehnerd (1997) describes a platform as a collection of subsystems and interfaces that form a common framework, as well as enabling the development and production of a variety of products (Harland et al., 2020). platforms, according to Robertson and Ulrich (1998), are a group of homes, items, methods, data, human beings, and communications that are used and exchanged for a spread of products (Piezunka, 2011; Ding & Yang, 2020). In summarizing the proposed meanings for the term platform, it needs to be noted that the word platform is interpreted from numerous views and in numerous methods. In an overlapping research wave, each of those scholarly literature explores the platform, focusing on items, generation structures, and transfers, respectively. Some have used the term in a completely general and abstract way, while others have defined the platform as completely based on a specific industry and product (Eisenman et al. 2010). Baldwin & Clark (2003) argued that certain meanings and explanations focus on the product itself, while others seek to explore the importance of platforms in the context of a firm's value chain. Keep in mind that every product platform has a clear purpose which includes 3 main aspects. The first is that they are all somewhat modular in terms of functionality, with a real stage of interdependence between modules. The output of the interface between the modules, from which each module interacts with the alternative, is the second component of every

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platform's underlying logic. the primary is that they are all incredibly modular in phrases of layout, with an excessive degree of interdependence between the modules. The result of the interface among the modules, from which each module interacts with the other, is the second thing of every platform's underlying logic. The existence of standards, the design guidelines for which modules are approved, is the third and most important factor to consider (Kubota & Cauchick-Miguel, 2020). From four theoretical perspectives, the architecture of the platform at the modular or ecosystem level can provide useful insights for the development of medium-term causal explanations that connect governance and environmental dynamics to evolutionary dynamics (Herman et al., 2018). Alternatively, the development of a successful product requires the interaction of the primary skills of the company, which includes technological and consumer skills (market) as well as integration abilities. consequently, with a purpose to decide the development framework of the technology platform, it's miles essential to first discover the desired requirements and abilities, and then expand a shape based totally on those competencies.
Theories about the important role of resources and capabilities as important and key foundations of corporate strategy and the main sources of profitability and vitality of organizations appeared in the literature on resource theory in the 1990s. The literature suggests that if companies are trying to respond to the needs of their customers in a complex and changing environment, they are relying on market-oriented strategies, but in the long term, and may not achieve the stability and unity needed to drive their strategies in these environments. A firm's resources and capabilities provide a more secure foundation (Grant, 2016). Danneels (2002) states that the source-based approach offers originality to the firm. This view shows that the superior competitive overall performance of any company is due to the aggregation and use of resources, managerial selections, and strategic factors of the industry. The useful resource-oriented view sees firms as a combination of sources, abilities, and skills. agencies want to have patron and generation abilities to deliver their services and products, and each of those talents is created by way of a set of sources. In this regard, the literature makes use of a set of phrases along with assets, resources, capabilities, abilities, and competencies, and apparently, no consensus has been reached on the which means of these words. Kiamehr (2013) also states that in spite of the efforts made in introducing talents, there are nevertheless a few dilemmas in defining those standards. In this context, Danneels (2002) uses the term "competence" to refer to the ability to do something using a hard and fast of materials, devices, machines, (and intangible assets), technical understanding of production, information purchaser wishes, and so forth. He concurs with Grant (1991) on the use of this term. Grant defines competence as the ability to perform activities using different resources (patents, technical expertise, brands, and equipment). In this sense, companies need a set of organizational qualities, which we call organizational capabilities, to be able to give the appropriate responses. Entrepreneurship is a basic concept in evolutionary analysis, originally introduced by Nelson and Winter (1973), and is the core of evolutionary business economics theory.

In these evolutionary theories, organizational learning is considered basically cumulative, path-dependent, and social in nature. From the perspective of companies, the key question is why companies have different characteristics, behaviors, and functions. The answer lies in the vitality of corporate capabilities and knowledge aggregation. It allows the company to coordinate its activities and use its resources to achieve the desired objectives. The capabilities of a company are based on daily behavior. The convention is organizational skills, it is the reason for the

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formation of organizational skills. In other words, one of the basic steps of company capacity building is routine (Grant, 2016).

- **Empirical background of the research**

Based on a review of platform development approaches, Manteghi et al. (2015) proposed to provide a methodological framework for product platform development based on specifications and capabilities in a study titled "Review of technical platform development approaches: with a focus on product platform." In this regard, researchers examined the literature in the field of platform, which reviewed the literature showed that there are studies in the areas of what is a platform, platform dynamics and strategies, platform leadership, and the implications of platform development. As a result, such research was carried out with the goal of closing the theoretical gap in platform growth. There are three key sections to the model built in this study to create a product platform based on specifications and capabilities. The initial steps, or the first part of the model, are concerned with platform development requirements. Internal requirements including product program, market classification and segments of the market, manufacturing process definition, consumer needs recognition (differentiation and similarity program), and external requirements in the form of business policies, such as brand ownership policy in the industry, are discussed in this section noticeably. Two approaches to internal development and participatory development were considered in the main part of the model, namely the product platform development part. In a report titled "Conceptualizing the capability of developing technological platforms in the Iranian car industry: a multi-case study," Jafarnejad Chaghoushi et al. (2017) based their findings on interviews with experts from Iran Khodro and Saipa Automotive Company, as well as academic experts from the University of Science and Technology Industry, which is developing a national platform. The skills needed to build the platform's core components, as well as the skills needed to incorporate these core modules, were defined, encoded, and classified. The indicators were then screened using the fuzzy Delphi technique. To begin, 23 categories of component development capabilities and 13 categories of integration capabilities were established. After two rounds of fuzzy Delphi, two categories of ability to obtain input from stakeholders, and the ability to document and authorize to set needed for component creation, as well as two capabilities to incorporate after-sales service, and preparing and synchronization of the required set of capabilities were finally identified. For integration, modules were disabled. In a study of " Tahmasebi et al (2016) that is titled "Typology of trends of acquisition of technical capabilities by new companies and proposing a strategy tailored to each model, they used the library approach to first identify different models and models proposed in the field of capability acquisition and growth. After being technologically adopted, these patterns were provided a special typology. Following that, strategies for boosting the realization of each model were suggested based on the new typology. To present the policy, methods, and techniques of technological cooperation have been used due to the central issue of technological cooperation of emerging companies with leading companies. "There are various approaches to an industry's progress and expansion, one of the most critical of which is to concentrate on capabilities." The key driver of development, progress, and success of organizations is not limited to their resources or market characteristics, but the main engine of success of their skills, is according to strategic management thinkers. So for now, "technological capabilities" are critical for manufacturing and technology-oriented corporations. Another critical question to ask is how to reach these capabilities. SMEs can boost efficiency is extracted

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according to Cenamour et al. (2019). In their study "How SME Entrepreneurship Competitively through Digital Platforms: The Role of Digital Platform Capability, Network Capability, and Dual Power." stated that Digital channels will help you grow. Via network capability, digital platform capability has an indirect impact on the success of entrepreneurial SMEs. Exploitation, as well as the negative and positive exploratory orientations of this practice, provide small and medium-sized entrepreneurial SMEs with incredible opportunities. However, many small and medium-sized entrepreneurial businesses lack infrastructure and skills, or are experiencing a crisis, which limits their ability to take advantage of these opportunities. This study looks at how digital platforms can assist entrepreneurial SMEs to improve their results. In a study titled "Achieving platform operational agility through IT-enabled capabilities: a resource dependency perspective," by Tan et al. (2018) noted the recent intensification of competition for agility advancement among consumer e-commerce (B2C) platforms. For a competitive advantage, operation is desired. Despite the consensus that the market is becoming more challenging, the method of achieving IT-based operational agility in e-commerce platforms has received little attention. This study provides a clear thesis about the interdependence of resources and capabilities equipped with forged IT during operational processes to achieve operational agility, based on research conducted by M.com, a multidisciplinary online retail platform in China. This research demonstrates how a platform such as M.com develops IT resource competencies and capabilities that mean operational agility through research, observations, and reflections, practically. According to Humphrey et al. (2018) research that is titled "Platforms, Innovation, and Capacity Development in China's Domestic Market," Chinese companies used technology to meet the needs of low-income Chinese consumers in the first decade of the twenty-first century. Platforms provided little opportunities for creativity. This article shows how shifts in Chinese market demand are pushing for more product differentiation and innovation, and how businesses are reacting by investing in R&D, building supply chain ties, and finding local innovation sources. They also mobilize the nation. Sectoral differences, especially in the mobile firm's rate of technological change and its implications for value chain ties and firm learning is emphasized.

3- Research methodology

In terms of purpose, the current study is defined as an applied study, and in terms of data collecting technique, it is characterized as a qualitative study. Various approaches are used in qualitative research. One of these techniques is the data-driven method. The foundation's data theory technique involves researchers using standard data gathering methods to identify categories and concepts, create a link between them, and propose a theory to describe a process. Because this theory is based on evidence, it is applicable to the scenario under investigation and provides a better explanation than previous theories. At the broad idea level, data theory is a qualitative and methodical procedure for developing a theory that describes the process, action, or interaction on a real micro-subject (Strauss & Corbin, 1997). Data-based theory is a method for discovering a theory based on a systematic comparative examination of emergent social science data trends (Glaser & Strauss, 1967). Glaser & Strauss (1967) presented a data-based theory with the goal of developing a theory that gives an abstract knowledge of one or more of the world's primary issues (Charmaz & Thornberg, 2020). As a result, this technique was chosen to create a model of the capabilities of cosmetics sector technology platforms.

Steps for analyzing data theory based on Strauss and Carbin methods

The steps taken to implement this study based on data theory are as follows:

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Step 1: Implement interviews and extract open categories. Step 1 (code extraction by paragraph). This means that the answer has been implemented, and the code of each paragraph related to the semantics of the question is written for each question posed.)

Step 2: Complete the interview and classify open source into the second step category (To classify the open category in the second step, you need to complete the interview and complete the open coding of the first step. Researchers classify code semantics after getting the first-class open-source code, decompose it into theme-related code.

The third stage: In this stage, called axial coding, the secondary category is located in the paradigm mode. Review the interviews multiple times to better understand the nature of the categories and accurately identify them as causality, context, and intervention to determine which category belongs to which box and which is appropriate. Therefore, after the researchers put the second category into the open category, the category was classified at a higher level. This process is called updating the cataloging system or improving the classification system. Therefore, a paradigm model is used to classify the core categories.

Step 4: selective coding. At this stage, the main categories are redefined at a higher level. To this end, we review the content of the interviews and try to create categories based on data.

- Open code: Microanalysis consists of open code and axial code. Microanalysis involves examining and interpreting data very accurately and often in detail. The data is subject to the interview text. The process of extracting content and dimensional concepts from raw data to identify categories is called coding. Concepts are different psychological names assigned by researchers to events, events, and phenomena generated in the abstract process. In addition, categories are more abstract concepts than other concepts. Questioning the facts, comparing cases, examples, and other phenomena in order to find similarities and differences. The introductory categories related to the subject under investigation are derived from basic ideas. Researchers do not have any restrictions to identify the category at this stage, so the name is "open". In other words, for open coding, researchers name categories with an open mind, and do not limit the number of codes and categories.
- Axial coding: data theory is based on "process theory". Therefore, to carry out centralized coding, the phenomenon of "relationship marketing monetization" must be viewed as a process. It should be noted that the purpose of axial encoding is to start the process of reassembling data that has been shredded during open encoding. Categories are associated with subcategories in axial coding to create a more accurate and complete description of the phenomenon. It is worth noting that axial coding does not always follow open coding. Axial coding requires analysts to find and control multiple categories. When the coding is turned on, the concept of links between categories will be conveyed. Researchers are trying to improve the category level in this regard.
- Selective coding: In fact, it is an intellectual evolution of the analyst, which continues from his interaction with the data and from the first analysis to the report. The goal of the selective coding stage is to move from description to higher and transcendent conceptualization in order to determine the progress of the story. In fact, although the selected categories may seem exaggerated, they can be used to clarify the purpose of the research. The total number of categories retrieved from the original data is represented by the following five models, which are connected by a paradigm model. If this model is not used, according to Strauss and Carbin, the central theory will lack the necessary precision and complexity (Danayifar et al., 2009).

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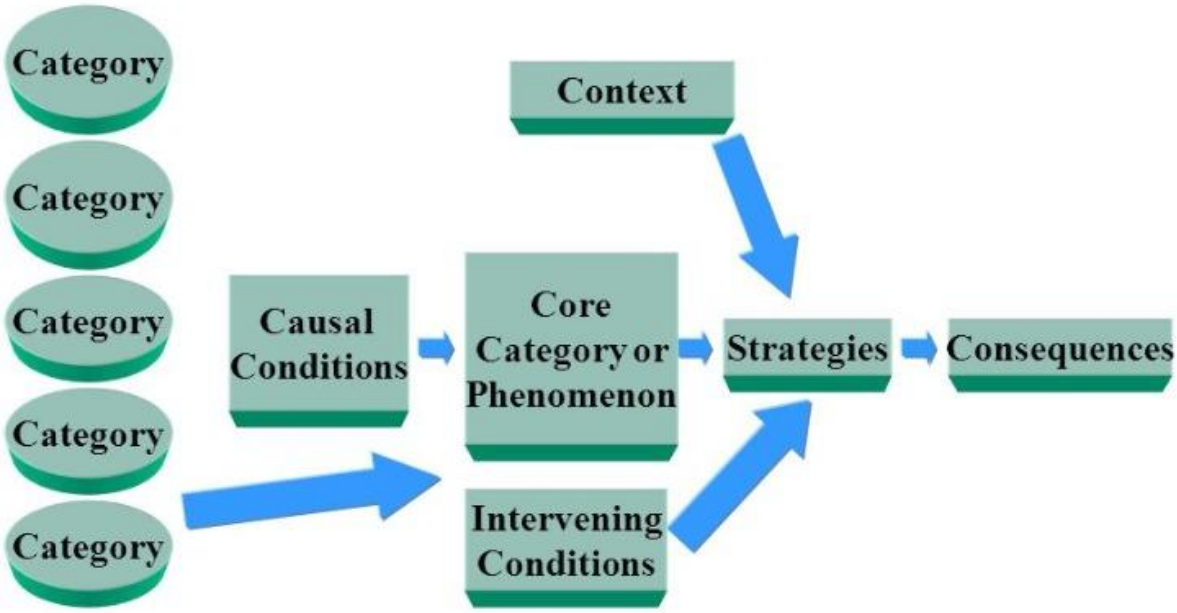


Figure1: Foundation data template; Danayifar et al, 2009

Causal conditions: these situations motive the advent and formation of a nuclear phenomenon or class.
Contextual condition: particular situations in which processes and interactions manage, control, and reply to the phenomenon.
Intervening situation: well-known situations that affect how procedures and techniques. Situations that exacerbate or weaken phenomena.
Leaders/actions & interplay: Behaviors and interactions that occur under the have an effect on intervening and contextual situations.
Results: The end result of interactions.
The statistical population of this examination consisted of professors and academic specialists in the area of business control, commercial enterprise, and statistics technology control, as well as activists inside the area of the cosmetics enterprise (reliable companies). For sampling, the sequential sampling approach changed into used till the theoretical saturation changed into reached (16 samples). This sampling approach means that the precept of slow or sequential selection is applied when the purpose of the study's task is to generate principle (or topics) or whilst the pattern evolves whilst collecting facts.
Progressive selection can be defined as sequential selection based on the relationship between the unit or element and the research question (Flick, 2018). In this standardized public interview survey, the exact wording and order of the questions are determined in advance. Ask the same basic questions for all interviews in the same order. To collect data, the questions were written in a completely open way based on Patton's (2002) typology. According to Lincoln & Guba (1985), four standards of credibility, reliability, confirmability, and convertibility are used to assess the reliability or qualitative reliability.

- **Research findings**

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On this segment, the researcher affords the research findings based totally on the analysis of interviews primarily based on the information-based paradigm version. As may be seen inside the tables under, simplest the chosen and pivotal classes are given.

The purpose of analyzing interview data in this section is to determine the factors that affect the central phenomenon. Table 3 summarizes the findings after the evaluation and interpretation of the interview.

Table 3. Coding of causal conditions

Axis code	Optional code	The significance of extractive codes
Budget	Organizational factors	Causal condition
Performance		
Effectiveness		
Organizational Culture		
Organizational atmosphere		
Leadership capability		
policy		
management style		
Hardware features	Technical factors	
IT infrastructure		
Equipment		
Market competition	Extra-organizational factors	
Governmental Laws		
specialized human capability		
politics		

According to the research findings in Table 3, in connection to causative circumstances, 3 selected elements comprising organizational factors, technical factors and extra-organizational factors were classified. In the selective category of organizational factors, 8 central categories of budget, efficiency, effectiveness, organizational culture, organizational climate, leadership ability, policy and policy, and management style were categorized. Three central categories of hardware facilities, information technology infrastructure, and equipment were grouped in the selected category of technical aspects. In the selective category of extra-organizational factors, four central categories of market competition, government law, skilled manpower, and politicization were categorized. In total, 15 pivotal categories were categorized into 3 selective categories.

Coding of contextual factors:

This section seeks to identify the factors that affect the choice of appropriate strategy in the current situation. The results are shown in Table 4.

Table 4. Coding of contextual factors

Axis code	Optional code	The significance of extractive codes
Economic power	Inner Capability	Underlying factors
Sustainable competitiveness		
Brand popularity		
Core values	National culture	
Collective norms		
Behavioral subscriptions		
Technology acceptance		

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Table 4. Coding of contextual factors

Axis code	Optional code	The significance of extractive codes
Welcoming the unknown		

According to the research findings in Table 4, in relation to contextual factors, two selective factors, including internal competence and national culture, were categorized. In the selective category of internal competence, 3 central categories of economic power, sustainable competitiveness and brand popularity were categorized. In the selective category of national culture, 5 central categories were categorized including core values, collective norms, behavioral commonalities, technology acceptance, and welcoming the unknown. In total, 8 pivotal categories were categorized into 2 selective categories.

4-1- Coding of interfering factors

Interfering factors refer to general factors that affect strategies. The results are described in Table 5.

Table 5. Coding of intervention factors

Axis code	Optional code	The significance of extractive codes
Intra-industrial cooperation relations	The level of development of the industry	Interfering factors
Industry quality performance indicators		
The share of cosmetic industry on gross domestic product.		
Attitudes towards the cosmetics industry	Policy	
Government support for the cosmetics industry		

According to the research findings in Table 5, in relation to the intervention factors, two selective factors of industry development level and policy-making were categorized. In the selective category of industry development level, 3 central categories of intra-industrial cooperation relations, quality performance indicators of industry, and the share of cosmetics industry in GDP were categorized. Two major categories were classified in the selected policy category: attitudes toward the cosmetics business and government assistance for the cosmetics sector. In total, five key criteria were divided into two distinct groups.

4-2- Coding strategies

The analysis of the interview texts in this section seeks to find the actions and interactions that result from the central phenomenon. The result is described in Table 6.

Table 6. Coding Strategies

Axis code	Optional code	The significance of extractive codes
Recognize components and connections	Technical empowerment	Strategies
System analysis		

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Table 6. Coding Strategies

Axis code	Optional code	The significance of extractive codes
Cumulative technical knowledge		
Understand and absorb technical knowledge		
Government supportive behaviors	Political Manner	
Adjust comprehensive protection laws		
Attracting the opinion of policy makers		
Market study	Engineering expectations and demands	
Identify needs		
Market analysis		
Experimentation and analysis of the unknown		
Evaluate technology trends		

According to the research findings in Table 5, in relation to paradigm model strategies, three selective factors of technical empowerment, political behavior, and engineering expectations and demands were categorized. Four central categories of component recognition and communication, system analysis, cumulative technical knowledge, and understanding and absorbing technical knowledge were categorized in the selective category of technical empowerment. In the selective category of political behavior, three main categories were categorized as government supportive behaviors, amending comprehensive protectionist laws, and attracting the attention of policymakers. In the selective category of engineering expectations and demands, 5 central categories of market study, needs identification, market analysis, testing and analysis of unknowns, and evaluation of technology trends were categorized. In total, 15 pivotal categories were categorized into 3 selective categories.

4-3- Coding the consequences

Applying selective strategies will have consequences. The result is described in Table 7.

Table 7. Coding the consequences

Axis code	Optional code	The significance of extractive codes
Horizontal system integration	System integration	consequences
Vertical system integration		
Geometric system integration		
Optimal income	Financial	
reduction in costs		
Profitability		
Provide focused services	the quality of service	
Focus on order processing power		
Storage of order information		
Increase the speed of service delivery		
Access to more information	Informational	
No violation of privacy		
Inclusive communication		

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According to the research findings in Table 7, in relation to the consequences in the paradigm model, 4 selective factors of system integration, finance, service quality, and information were categorized. In the selective category of system integration, 3 central categories of horizontal system integration, vertical system integration, and geometric system integration were categorized. Three key areas of acceptable revenue, cost reduction, and profitability were characterized in the selected financial category. 4 key categories of centralized service delivery, concentration on order processing power, storage of order information, and improving the speed of service delivery were classed in the selected category of service quality. The three core categories of access to additional information, non-invasion of privacy, and inclusive communication were grouped in the selected category of information. In total, 13 key categories were divided into four distinct groups.

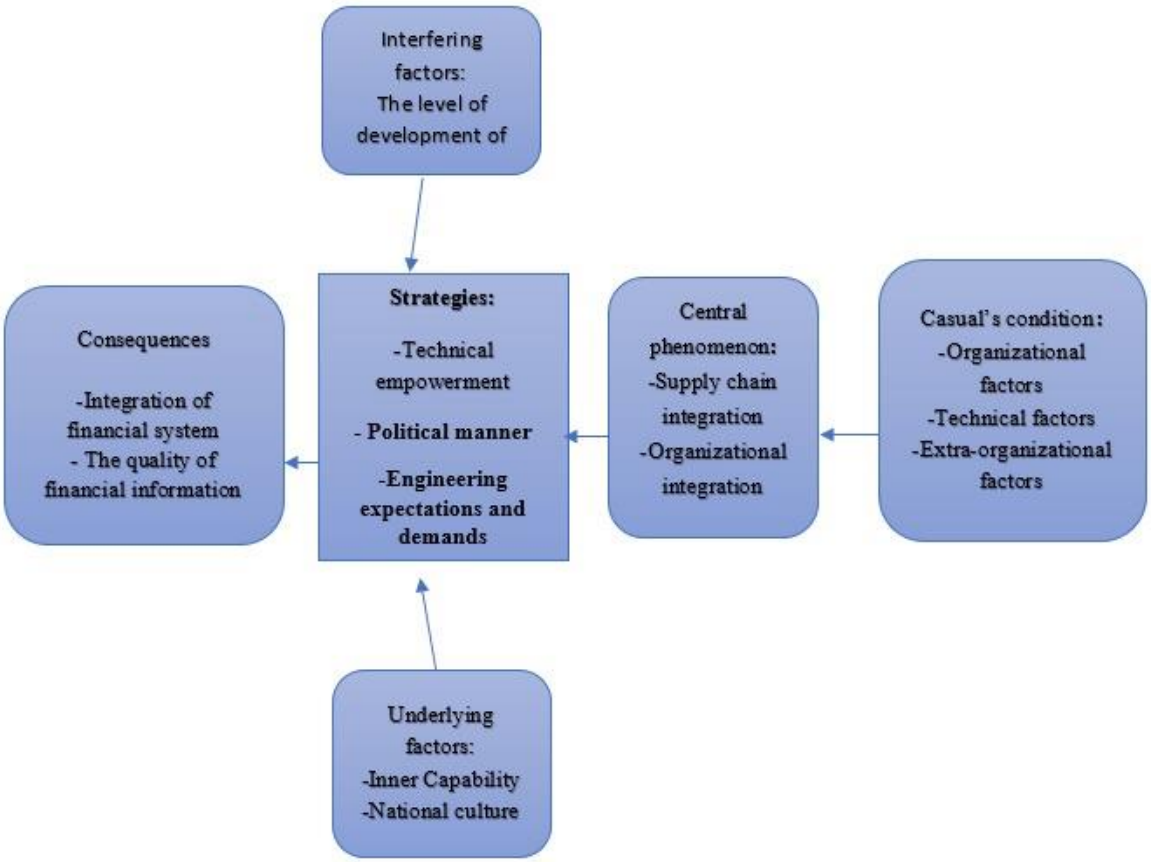


Figure 2: Research paradigm model

4-4- Central category coding

The results of the central phenomenon of this study are as described in Table 8.

Table 8. Central category coding

Axis code	Optional code	The significance of extractive codes
Ability to communicate with customers	Supply chain integration	Central category
Cooperation with suppliers		Process management capability

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Table 8. Central category coding

Axis code	Optional code	The significance of extractive codes
Contact suppliers		
Proper organizing ability	Organizational integration	
Learning ability		
Capability of process management		
Capacity of knowledge capacity		

According to the research findings in Table 8, in relation to the results of the central phenomenon, two selective factors of supply chain integration and organizational integration were categorized. In the selective category of supply chain integration, three central categories were the ability to communicate with customers, cooperate with suppliers, and communicate with suppliers. In the selective category of organizational integration, 4 central categories of proper organizing ability, learning ability, process management ability, and knowledge capacity capability were categorized. In total, 7 pivotal categories were categorized into 2 selective categories. Finally, the paradigm model of research based on data theory is presented as follows.

4- Discussion and conclusion

Today, new technologies have altered the corporate landscape and societies all over the world (Kraus et al., 2019; Nambisan et al., 2017; Zaheer et al., 2019). New technologies have also provided businesses with appealing innovative opportunities (Oppong et al., 2020), in a way that develops the business and goes beyond its traditional scope, it has entered the field of networks and ecosystems, and it has led to the evolution of companies' technology investment methods (Huang et al., 2017). In reality, new technology advancements have fundamentally altered the nature of innovation and the competitiveness of businesses (Hanelt et al., 2021; Nambisan et al., 2019). To this aim, businesses must incorporate platform beds into their operations in order to fully realize the promise for technological transformation (Sandebrg et al., 2020). In reality, new technology advancements have fundamentally altered the nature of innovation and the competitiveness of businesses (Hanelt et al., 2021; Nambisan et al., 2019). To this aim, businesses must incorporate platform beds into their operations in order to fully realize the promise for technological transformation (Sandebrg et al., 2020). These platforms enable the digital usage and management of resources outside of the organization, resulting in value creation through the facilitation of multidirectional communication influenced by external networks (Jovanovic et al., 2021). The results of this study revealed that technological platform capabilities are derived from two dimensions: organizational integration and supply chain. This scenario results in a fair connection between the company and its strategic partners, in addition to the unity and integration that is established within the organization and brings unity and internal compliance. Factors that influence the creation of such a scenario are divided into three categories in this study: organizational, technological, and extra-organizational. Platform capabilities are strengthened at the organizational level by variables such as corporate culture and policy. Also, the existence of technical infrastructure can provide a favorable environment for improving the capabilities of platforms, because it is necessary to form a proper infrastructure and, accordingly, the organization's goals in relation to new technologies to be progressed. In addition, extra-organizational factors such as government and governance laws and regulations can limit the capabilities of these platforms. Various studies such as Tian et al (2021); Cozzolino et al (2021); Pena & Breidbach (20212); And Xu et al (2021) emphasize the use and

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implementation of platform structures in business processes from product design to marketing to the manufacturing and even service industries to better serve customers. Overall, it can be claimed that utilizing technology platforms' capabilities in the cosmetics sector may lead to the development of more successful business strategies for strengthening and improving technology-based processes. Customers' products and services will be delivered digitally. In this case, some cosmetics firms are attempting to improve their technological knowledge and skills in order to gain a competitive advantage in the goods and business. Furthermore, others are attempting to build a reasonable relationship with those in positions of power through political behavior in order to achieve various benefits for the organization. Others have researched the market and are trying to provide reasonable data to determine and optimally match supply and demand to ultimately have consequences such as improving the organization's financial situation and increasing revenue, better services and power Access stronger and deeper information and knowledge about markets and products. Finally, using the foundation's data methodology, this analysis was able to demonstrate the latest and current series in the capability of technical platforms in the cosmetics industry.

As a result, the current study makes the following recommendations:

• Allocate adequate budgets to enhance technological platform capability
• Promote and improve values and norms that encourage technological platform usage
• Develop policies and guidelines for the cosmetics industry that encourage the use of technology platforms.
• Efforts to change government rules to make it easier for businesses to use technology platforms.
• Attempting to implement plans for the organization's human resources to embrace technology
• Determine and improve the factors that can aid in cosmetics branding.

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