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# Designing an Organisational Strategic Planning Model in the Iranian Forensic Medicine Organisation

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**ABSTRACT**

Strategic planning is one of the important and effective concepts that organisations have always paid attention to in order to survive, improve competitiveness, adapt to changing environmental conditions and finally provide better services. This issue requires close attention, especially considering the current conditions in important and influential organisations such as the Forensic Medicine Organisation. The purpose of this research is to explain the strategic planning model of the country's forensic medicine organisation through a futures research approach. The research method employed in this study is qualitative. The current research is career-oriented in its purpose and employs both qualitative and survey methodologies. The method of data collection was library studies and semi-structured interviews, and MAXQDA version 20 software was used for data analysis. The statistical population included 15 experts (directors, managers organisation, and supervisors of the organisation's human resource strategy projects, as well as business experts and academic experts in the field of management). The research findings showed that the strategic planning model Forensic Medicine Organisation includes organisational factors, support factors, and individual factors. Organisational factors include cultural, structural, and process criteria. The support dimension includes motivation criteria, an extroverted management team, and a focused management team. Individual factors include interpersonal communication criteria, creativity, and general skills. The results of the research have also shown that strategic futures research operates at two levels of organisation and product employing two approaches: perception and prediction (interpretation). From the perspective of product innovation management, futures research is conducted at both the organisational and product levels. At both levels, environmental monitoring activities, data interpretation and learning are conducted separately.

***Keywords***

Future research, Strategic planning, Forensic medicine, Support, Individual creativity.

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## 1. Introduction

Strategic planning is one concept that has received increasing attention in economic enterprises and organisational planning in recent years due to its comprehensiveness (Waltert et al., 2024). Parallel to the more dynamic environment and the rise in environmental uncertainty, strategic planning has also gained prominence in organisations, enabling them to navigate environmental changes and turbulence while solidifying their orientation towards long-term goals (Napoleone, 2024). Strategic planning facilitates understanding the organisation's strategic position, determining strategic goals, and selecting appropriate strategies to achieve these goals (Munoz et al., 2023). Regarding the strategic position of the organisation, it is essential to acknowledge that this involves evaluating the organisation's strategic capabilities (resources and skills), the expectations of stakeholders, and identifying how the external environment influences the organisation's strategy (Almeida et al., 2022). The strategic capabilities of the organisation encompass the resources and skills it must acquire to survive and thrive. These resources encompass physical assets (buildings, equipment, and production capacity), financial resources (capital and funds), human resources, and intellectual capital. Therefore, strategic management aims to transform the organisation's ordinary resources into distinctive resources (Irawan et al., 2023). The key point is that organisations employ various strategic planning approaches to succeed in areas such as enhancing performance, competitiveness, survival, and adaptability to different environmental conditions. Therefore, depending on the specific circumstances affecting organisations and their environment, each organisation adopts distinct strategic plans to achieve these objectives (Lafioune et al., 2023). According to his opinion, there is no single perfect version of strategic planning that suits all organisations; rather, each organisation selects a model based on the nature of its operations and, by making modifications, employs this model as its strategic planning process (Theoharakis et al., 2024). This issue is of great importance, especially considering the challenges that organisations will face in the future—whether in the near or distant future—which will lead to a range of diverse and unpredictable conditions for organisations (Hayati et al., 2023). Such conditions—that is, the formulation and implementation of various strategic plans under different and sometimes unpredictable circumstances have heightened the focus on future studies within the field of strategic planning, establishing the foundation for developing strategies and plans across multiple strategic domains (Kohtamaki et al., 2023). In general, the concept of future studies reflects how the reality of "tomorrow" emerges from the changes or stability of "today." Accordingly, strategic planning futurology represents a type of planning aimed at defining and formulating the

necessary, effective, and efficient strategies for the future of organisations (Hofhuis et al., 2024). The concept of strategic future research encompasses two main aspects: understanding the present and predicting the future. Decision-making is the essence of planning, which involves studying internal and external variables to determine the best approach for transitioning from the current situation to the desired one (Nygaard, 2024). Therefore, the basis of the strategic planning process is the study of internal and external variables in the current conditions. Such an approach involves selecting the method to achieve the goal in the future based on current conditions. The current conditions will not continue. Therefore, organisations face strategic plans that are constantly outdated (Pereira et al., 2022). Strategic futures research can outline a strategic and dynamic path by predicting the future internal and external situations, which form the basis of the organisation's strategy, unlike the static approach found in traditional texts. A path that considers different future states and conditions (Bhatti et al., 2023). As we know, forecasting is the basis and prerequisite of any type of planning, especially strategic planning. In the current situation, it is unexpected events can sometimes destroy the foundations of plans, including strategic ones. In this situation, it is not reasonable to give up planning and expose ourselves to future events. So, a solution should be found to solve this problem (Stapleton et al., 2024).

Following the announcement of the country's 20-year vision document by the Supreme Leader, the Forensic Medicine Organisation's 20-year vision document was compiled for the first time in 2013, and the organisation's goals were outlined in the form of its fourth five-year development program (Ghanavati, 2023). Since 2017, the organisation's twenty-year vision document has been revised and redesigned. So far, five specialised meetings have been held in line with the development of the country's Forensic Medicine Organisation’s strategic plans within the relevant organisation. According to the 1401 statistics, this organisation provides services to more than 2 million, 996 thousand, 637 clients in the country, with nearly 336 centres (Mansouri, 2024). 90.6 percent of these experts are involved in clinical examinations, 1.3 percent are specialised commissions, 4.9 percent are involved in laboratory affairs, and 3.3 percent are related to the examination and autopsy of corpses (Dalir, 2023). According to available statistics, on average, more than 500,000 conflict victims refer to the country's forensic medicine centres every year. In 2023, the statistics on conflict-related referrals to forensic medicine were 876,753 people, representing an increase of 0.8% compared to the previous year (Alimohammadi, 2023). According to the conducted research, to date, a comprehensive local model for the strategic planning of the country's forensic medicine

organisation has not been presented in the country, and future research is necessary to address this gap. By examining the preparations made, it was determined that the Forensic Medicine Organisation is one of the most important and influential organisations in Iran. It should be possible to improve the functioning, deliver better service, and provide appropriate management and executive perspectives within this organisation through strategic planning. For this reason, the presentation and application of strategic management in the Forensic Medicine Organisation is very important. Based on this, the current research aims to develop a strategic planning model for the country's forensic medicine organisation, adopting a future research approach. It will enable the identification of constructive scientific and practical solutions to enhance the strategic planning of the country's forensic medicine organisation. Therefore, the question of the current research is: "What is the strategic planning model of the country's forensic medicine organisation with a future research approach?" In the current research, as we examine the theoretical foundations and theories related to the relationship between future research and the process of strategic management, as well as the country's forensic organisation, the processes by which future research leads to value creation are presented. Then, the literature related to strategic foresight is presented, and by stating the key success factors of organisational foresight, a conceptual model of the role of these factors in the success of the organisation is developed.

## 2. Literature review

### *2.1. Strategic planning*

Strategic planning refers to a process during which organisations make decisions, identify solutions, and design a roadmap to achieve desired goals (Kurpiela and Teuteberg, 2022). Thus, it can be acknowledged that strategic planning serves as an official representation of the organisation's future. The strategic planning process comprises several steps, which are briefly reviewed below:

Initial agreement: It means that the organisation first recognizes the desired goal of its opinion and undertakes comprehensive planning to achieve that goal;

Establishing duties: It means establishing the dos and don'ts as well as determining the position of the people that the organisation needs to achieve its desired goal;

Stakeholder analysis: Organisations must also consider the conditions of stakeholders to adjust their organisational plans because, one of the secrets to the success of organisations is obtaining the satisfaction of stakeholders;

Developing a mission statement: The organisation's mission statement determines the goals of the organisation, its governing structures and values, and how to respond to the needs of customers and stakeholders;

Understanding the organisation's environment: Another necessary and important condition for organisational strategic planning is understanding the organisation's environment. The mentioned environment includes both the internal and external environments of the organisation, It is very important to pay attention to each of these two environments because, based on it, you can get a proper understanding of the weaknesses and strengths of the organisation;

Determining strategy: This stage is considered the basis and focal point of strategic planning. Strategic contents or issues refer to the set of structural, political and economic decisions of the organisation, based on which it determines the areas of authority, missions, products, services, costs, budgets, etc. of an organisation;

Setting the organisational perspective for the future means drawing up the future conditions, in other words, the possible perspective of the organisation, based on the existing material and human resources of the organisation.

A one-year operational plan means setting up a plan based on the organisation's facilities and priorities over a one-year period (Lafioune et al., 2023).

In general, the realisation and correct implementation of organisational strategic planning includes three stages:

**Developing strategies**: Developing the mission of the organisation; identifying opportunities and threats of the external environment, identifying the strengths and weaknesses of the organisation; determining short, medium and long-term goals; determining and choosing multiple and diverse strategies to continue the activity;

**Implementing strategies**: Setting annual goals in the organisation, determining policies, motivating employees and allocating resources to implement the formulated strategies;

**Strategy Evaluation:** Strategy evaluation refers to the process in which a business determines the effectiveness of the company and its ability to reach its future goals (Borchers and Enke, 2021).


Figure 1. Three stages for realising and correctly implementing organisational strategic planning

### *2.2. Organisational future research*

Future research, organisational strategy and operational management are important and effective organisational issues that each follow different lines (Mariano and Laker, 2024). Future research provides a type of knowledge that is crucial to apply within an organisation. Based on future research, the set of organisational approaches, strategies and policies designed has been implemented, and its strengths and weaknesses are evaluated (Galan, 2023). An important point regarding organisational future research is the ability of the organisation's managers to recognise two key issues. First, providing organisational needs, including capable and expert human resources, financial capital, and technological capabilities, and secondly, their ability to see and predict the future. The future research of organisations is essentially discussed in two dimensions: the far and near future. In most cases, the attention, focus, and emphasis of organisational managers are on near-future research, which will confront organisations with significant problems. In fact, due to the intense competitive conditions in the current era and the pressing issue of organisational survival, most managers focus on the near future (Jabhan, 2023). This issue may bring important achievements for organisations at first, but if they do not pay attention to the distant future, threats will be far more significant for them. In general, the organisational futures research process is realised during several stages:

1. **Determining both short-term and long-term changes**: Based on this, it is crucial to identify the set of probable cases related to what will happen in the near or distant future.

2. **High ability to change and replace**: Another important item for future research for an organisation is the ability to apply change or the ability to quickly replace. Based on this, an organisation should be able to identify the set of environmental changes and threats, can adapt to the changes, and have a high capacity for replacement (Marquez et al., 2025);

3. **The ability to use up-to-date knowledge and new and efficient technologies**: Planning

and implementing a set of efficient scenarios of an organisation requires an important principle called new and efficient knowledge and technology. Based on this, new knowledge and modern technologies give organisations the ability to use different approaches and methodologies to achieve an important principle of organisational balance and maintain itself against changing and unbalanced environmental conditions;

4. **The ability to predict all possible future scenarios**: Among other important things for planning and implementing the appropriate future research of an organisation is the ability of its managers to predict all possible future scenarios. Based on this, managers who can predict more situations and prepare the conditions for those different situations will, of course, have a more successful organisation (Lafioune et al., 2023);

5. **The ability to creatively interpret and understand basic reality**: Predicting the future requires creative interpretation. Creativity that can create an exclusive status for the organisation, which will greatly contribute to the success of the organisation in today's competitive conditions;

6. **Evaluation of changes or continuation of the situation**: Finally, the future research of an organisation depends on the evaluation of all its stages. Based on the evaluation process, the managers of the organisation will determine the degree of success or failure of the organisational strategies. In addition to identifying existing weaknesses, strengths, and threats, they will reach a final conclusion on whether the adopted policies and strategies are effective or not. If it achieves a suitable level of efficiency, the current situation will typically continue; if it has not met the desired expectations, then a policy of changing the situation and revising organisational strategies will be implemented. (Jin et al., 2024).

Marquez et al. (2025), in an article titled: “Expanding Strategic Vision: The Role of Non-Utopian Unreal Scenarios in Decision-making”, showed that Mathematical reasoning is used to develop a framework for calculating the implications of these scenarios, emphasising the importance of probabilistic thinking in risk assessment. Organisations can benefit from adopting NUUS to navigate uncertainty and reduce risk the practical applications of NUUS illustrate its potential to inform strategic decisions in complex environments. Mohammed Mousa et al. (2024), in their research titled “Strategic Planning and Organisational Performance: An Empirical Study on the Manufacturing Sector”, demonstrated that the process of strategic planning has a beneficial effect on financial performance. Environmental scanning has a statistically significant positive effect on a company’s nonfinancial performance.

Management participation and planning formality have a positive and statistically significant effect on a business's non-financial performance at the 10% level. The domain of strategy and technique does not impact a company's nonfinancial performance. Yuan et al. (2023), in an article titled:" Integrated resource strategic planning considering inter-regional flexibility supply-demand balance: A case study for the Northwest and Central Grid in China", showed that incorporating these constraints and interconnections into the strategic power plan enables greater integration of renewable energy while reducing both installed capacity and the overall cost of regional power resources. In the S3 scenario, which includes inter-regional flexibility supply-demand balance, the total integration of wind and solar power increases by 1.54%. Additionally, the combined average annual fixed and operating costs decrease by 1.44 billion yuan compared to the S2 scenario, which only considers single-region flexibility supply-demand balance furthermore, evaluating flexibility demand at a shorter timescale results in a higher proportion of flexible resources, with an average annual growth of 24.43%.-Klepej and Marot (2024), in an article titled "Considering Urban Tourism in Strategic Spatial Planning", showed that strategic spatial planning documents are not responsive enough to tourism growth, and there is a lack of strategic measures steering towards sustainable tourism development in cities.

Sorkhabi et al. (2024), in an article titled:" A Futures Study on the Strategic Competencies of Human Resources Training and Development Managers (A Case Study of the Social Security Organisation)", showed that the analysis of the interviews led to the identification of 67 primaries and 36 secondary competencies, and 14 of them were confirmed by screening through fuzzy Delphi. Among the 14 competencies, the most strategic key competencies were determined as situational awareness, peer education, digital leadership, unity of effort, and unification of efforts. As a result, it is necessary to examine these competencies in the design of human resource development programs and measures for the SSO, focusing on future human resource training and development managers within the organisation, and to always consider these strategic steps for their excellence and prosperity.

Gharavi et al. (2023), in an article titled " Identifying effective strategic factors in the field of sales performance and the role of social media marketing with a future research approach", showed that eight factors related to sales performance are divided into three categories of influencers, dependent and autonomous, according to social media in terms of permeability and dependence. Factors such as sales performance, sales behaviour, the use of social media, and the collection of competitive information about the research topic are more effective. In

contrast, other factors, such as media type and goal-oriented education, as well as attitude towards media utility, have the most impact and are the least affected. The research findings also showed that, in terms of future research and identification of strategic variables, the variable of customer relationship technology is the most strategic research variable affecting sales performance.-Akbarpoor and Tizroo (2022), in an article titled ” Futures studies of the strategy of knowledge-based companies with a scenario approach”, showed that the results of the scenario wizard software provided eight acceptable (strong) scenarios, among which three optimistic, pessimistic and most likely scenarios were analysed. By categorising the advantageous components into four categories—political/strategic, economic/financial, social/cultural, and technological the results of the three scenarios were also presented in this manner. In the final stage, a 6-person group was formed to develop the necessary measures and policies. This group ultimately proposed 12 measures for the optimistic scenario, nine measures for the probable scenario, and four measures for the pessimistic scenario. In general, it can be said that in knowledge-based companies, the distribution of knowledge management power across four categories production, market development, project result orientation, and quality can provide a favourable scenario for maximising the use of facilities and opportunities.

Mohammadpour et al. (2022), in an article titled ”Designing Strategic Model of Entrepreneurial University Based on Approach Future Studies in Higher Education”, showed that the main categories include: 1) Entrepreneurial organisational structure; 2) Entrepreneurial management; 3) Entrepreneurial vision and mission; 4) Entrepreneurial educational system; 5) Entrepreneurial research system; 6) Entrepreneurial human resource management; 7) Entrepreneurial financial resource management; 8) Culture of entrepreneurship and sustainability; 9) New ICT; 10) Role models and reward systems; 11) Entrepreneurship centres; 12) Government support; 13) Economic factors; 14) Socio-cultural factors; 15) Committed relationship of industry and university; 16) Internationalisation. As mentioned earlier, in this study, to complete the discussion of foresight, in addition to gathering the factors affecting the entrepreneurial university, the factors that shape a favourable future for the university were separately collected and discussed. To build a futuristic entrepreneurial university, it is essential to consider not only the factors affecting entrepreneurial universities but also the factors that will shape the future university. Given this in mind, the concepts of foresight institutionalisation and strategic thinking should be applied to all university activities, especially in the university's vision and mission. In the process section, to build a foresight entrepreneurial university, foresight planning factors, the discovery of internal and external trends, bedrock and structural

reforms in the educational and research system, organisational structure, organisational culture, role models, and reward systems, as well as information and communication technologies, should be considered. In the output section, to build a futuristic entrepreneurial university, the factors of entrepreneurial university scenarios, as well as science and technology foresight, should also be highly considered.- Ahmadi and Saeedi (2021), in an article titled " Identifying the Drivers of Future Strategic Thinking of Managers in the Iranian Budgeting System with a Futures Research Approach", showed that the selection of experts was based on the method of theoretical sampling of snowballs and theoretical saturation Delphi results Two-sentence test and fuzzy Delphi were used. After preparing the list of initial proponents, incorporating the opinions of professors specialising in this field as well as experts from the interview stage, the initial propulsion was aggregated and modified. Finally, 22 drivers were selected and sent to Delphi stage experts. The results showed that 22 drivers are among the most important drivers in the future of strategic thinking in the country's budgeting system. In this study, 22 propulsions were identified, which were approved by experts.Table 1 shows that most of the dimensions identified in the field of organisational strategic planning are general and may not meet the specialised needs of this issue, especially in important and influential organisations such as forensic medicine. In this regard, it seems that in order to identify the dimensions of organisational strategic planning, other important dimensions can also play a role, the gap of which is evident in previous researches, and this indicates the existence of a theoretical gap in this field.

Table 1. Dimensions of strategic planning extracted from the empirical research background

| Author(s)/ Year | Identified dimensions | | | | | |
|---|---|---|---|---|---|---|
| | Organisational innovation | Strategic evaluation | Strategic prioritization | Strategic knowledge | Strategic competition | Smart decisions |
| Marquez et al., (2025) | | √ | √ | | √ | |
| Mohammed Mousa et al., (2024) | √ | √ | √ | | | √ |
| Yuan et al., (2024) | √ | | √ | | √ | |
| Klepej and Marot (2024) | √ | √ | √ | | | √ |
| Sorkhabi et al., (2024) | √ | √ | | √ | | √ |
| Gharavi et al., (2023) | | √ | √ | √ | | √ |
| Mohammadpour et al., (2022) | √ | √ | | √ | | √ |
| Akbarpoor and Tizroo (2022) | | √ | √ | √ | | √ |
| Ahmadi and Saeedi (2021) | √ | | √ | √ | √ | |

By reviewing the literature and research background, it was found that no independent and comprehensive research has examined the organisational strategic planning model in the Iranian Forensic Medicine Organisation, and this is the most important innovation of the current study. Also, examining the most important dimensions of organisational strategic planning in the Iranian Forensic Medicine Organisation is considered to be another innovation of the present study.

## 3. Research methodology

The research method employed in this study is qualitative. The present research is applied in terms of its purpose, and qualitative and survey methods are employed in its methodology. Information was collected through library studies and semi-structured interviews, and MAXQDA version 20 software was used to analyse the data. The statistical population consisted of 15 experts (heads, managers, and supervisors of the organisation's human resources strategy projects and academic experts and experts in the field of management). The statistical population includes experts (heads, managers and supervisors of the organisation's human resources strategy projects, as well as academic experts and experts in the field of management) who have the following conditions: 1- They have held an executive position in at least one of the organisation's human resources strategy projects. 2- They have more than 15 years of related experience, and 3. Professors who have experience in at least one strategic planning project in public or private departments. Based on this, the sample size of the present study included 15 people.

### *3.1. Coding and analysis process*

The authors identified them by using reliable articles and books that have been cited at least five times a year by other researchers. Then, according to these articles, they identified and extracted the materials used in the table below. It is stated along with the names of the authors and the year of their publication. The main and subcategories were presented based on the process of open and central coding of the data obtained from in-depth and exploratory interviews with key experts, as well as the refinement of conceptual codes. The priority of each factor was determined by the frequency with which the concepts were mentioned in the interviews. In general, coding is a systematic procedure developed by Strauss and Corbin (2006) to discover categories, characteristics and dimensions of data. During these analyses, stratified content analysis was employed, along with the analytical technique suggested by Strauss and

Corbin (2006). Based on this, in the first step, open and central coding was performed by examining the data at the sentence and phrase levels for each interview, and conceptual codes were extracted from the interview transcripts. Sometimes, a sentence was related to more than one concept. By extracting standard conceptual codes and refining and removing duplicates using theoretical foundations, concepts were identified and specified. In the next step, by refining and reducing these concepts, they were organised into subcategories (components). Through continuous examination of these categories and their concepts, the main categories (dimensions) were temporarily named. To ensure the proper organisation of each concept and category, the transcripts of the interviews were rechecked, and the concepts and categories were carefully examined. The data was analysed multiple times to achieve logical saturation for the main categories and subcategories. From the beginning of the analysis, the limits and even the titles of each category were not definitively determined, and these categories were revised throughout the analysis process. Open and axial coding was stopped when a meaningful classification was achieved after several reviews of the interview transcripts, the subcategories were duplicated, and no new relevant information could be found in the interview transcripts, even if additional information was discovered. It was consistent with the existing classification. The classification done was not the only possible classification with absolute limits, but it can be considered sufficient for the following stages of data analysis and questionnaire design. In accordance with the research questions, participants were asked various questions during individual interviews regarding the dimensions and indicators within the strategic planning model of the Forensic Medicine Organisation of the country, approached with a future research perspective. The participants provided diverse responses, enabling the researcher to identify concepts through a content analysis of the text at the phrase, sentence, or paragraph level by extracting conceptual codes. This process continued, and by identifying additional sub-categories through comparison and data matching, these types of sub-categories were classified under the main category or dimension. The interview transcripts were reviewed several times, revealing further concepts and sub-categories that enhanced the saturation of these macro categories. Below is a sample of the interview text:

The success of any organisation depends on having a comprehensive, efficient programme and efforts to realise it. The necessity of this issue is the existence of a regular and purposeful structure. Based on a regular and purposeful structure, a set of strategies and goals of the organisation can be set. Forensic medicine is pursued to achieve the goals of organisational

development. This issue also depends on capable human resources, modern organisational knowledge, and capable and competent managers."

Strategic planning in the forensic organisation should have the necessary efficiency in critical situations and this issue depends on the realisation of high organisational skills in this organisation. For example, considering the ever-increasing volume of referrals to the Forensic Medicine organisation, the employees of this organisation should be able to organise clients well with their high skills."

Strategic planning in the forensic medicine organisation should be based on the realization of new ideas. In fact, considering the existing conditions in this organisation, it is no longer possible to provide services to clients based on traditional ideas and procedures. Therefore, the senior managers of the forensic medicine organisation should firstly respect new ideas, and secondly, by creating a diverse think tank, they should try to provide new and creative approaches".

An example of how to perform the familiarization and data labelling steps is presented in Figure 2:

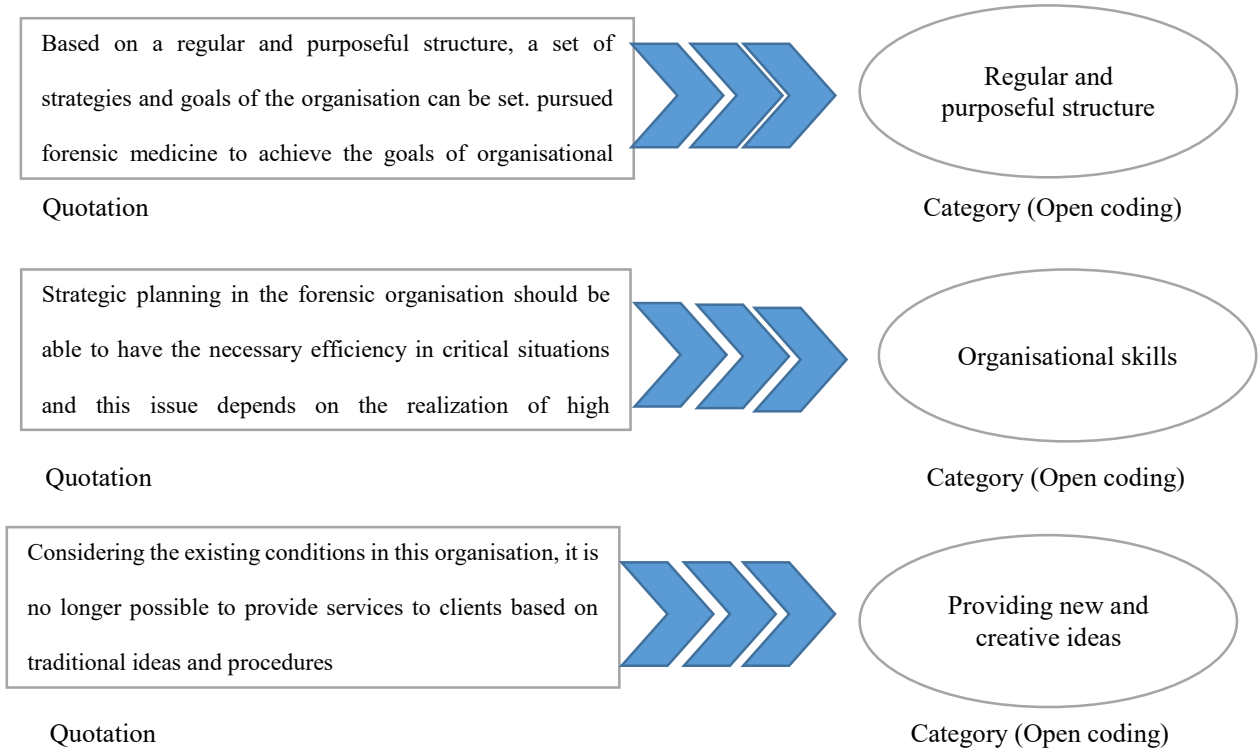


Figure 2. An example of how to perform the familiarization and data labeling steps

## 4. Findings

### *4.1. Indicators extracted from the interviewees*

In the qualitative part, first, the key points related to each semi-structured interview were marked by listening to the recorded interviews and studying the written notes during the interview, then the key and essential points from each interview were extracted. Next, by using the classification of key points in the form of professional terms, the necessary labeling was done. Then, the labelled terms of each interviewee were organised in the form of a table and classified into dimensions based on their relationship and compatibility. In the following, the obtained primary codes are examined, and then the researcher groups codes that are close to each other in terms of meaning and concept, which have a semantic affinity with each other, and creates new meanings and words. In fact, the researcher categorizes the codes in the form of sub-themes. To learn more about these categories, an example is given in Table 2.

Table 2. Results of interviews with experts

| Introduction of codes and indicators | Number of repetitions |
|---|---|
| Extensive organisational structure/communication | 8 |
| General skills/operational skills | 7 |
| process/existence of the central process | 7 |
| Structure/structural agility | 7 |
| Creating motivation/rewarding in order to request plans based on future research | 7 |
| Interpersonal communication/discourse based on future research concepts | 6 |
| Structure/Creation of education structures based on future studies | 6 |
| Extrovert management team/expression of thoughts to introduce and recognize the plan from the managers to the employees | 6 |
| Centralized management team/creating a think tank for me for executive and operational days | 6 |
| Creativity/identification of creative and innovative ideas and solutions | 6 |
| Culture/existence of teamwork | 6 |
| Culture/credibility and acceptance of the norm | 6 |
| Interpersonal communication / communication with other organisations and competitors | 5 |
| Centralized management team/use of experts in management teams | 5 |
| Interpersonal communication/creating intra-organisational communication platforms with a focus on the future of knowledge | 5 |
| Extrovert management team/Using client/project oriented teams | 5 |
| Creativity\Focusing on important, attractive and exciting ideas | 5 |
| Support/motivation | 5 |
| Creating motivation/giving spiritual privileges to employees | 5 |
| Extroverted management team/involvement of managers in work | 5 |
| Organisational/cultural factors | 5 |
| Systematized and formal process/processes | 5 |
| General skills/correct understanding of abilities | 5 |
| Organisational/process factors | 4 |
| Organisational/structural factors | 4 |

| Introduction of codes and indicators | Number of repetitions |
|---|---|
| Support and support\outgoing management team | 4 |
| Centralized management team/Using an exclusive management team for the activity | 4 |
| Visible and transparent process | 4 |
| Individual factors/interpersonal relationships | 4 |
| Structure/existence of necessary structure for development | 4 |
| Extroverted management team/manager's presence in the field of activity | 4 |
| Individual factors/general skills | 4 |
| structuring/providing development and training and rewarding research and development | 4 |
| Organisational factors | 4 |
| Individual factors/creativity | 3 |
| Participatory decision-making process | 3 |
| Support and centralized management team | 3 |
| General skills/methodological skills | 3 |
| Individual factors | 3 |
| Support | 3 |
| Total (Valid) | 195 |
| Total | 195 |

Based on Table 2 and the results obtained, the total number of repetitions of the indicators identified in the expert interviews, each of which lasted 30 minutes and was semi-open (guided), has been determined. Then, using this information, the results related to the phishing technique are displayed through the MAXQDA software, showing the usage of each variable, and the results are graphically illustrated in Figure 3.

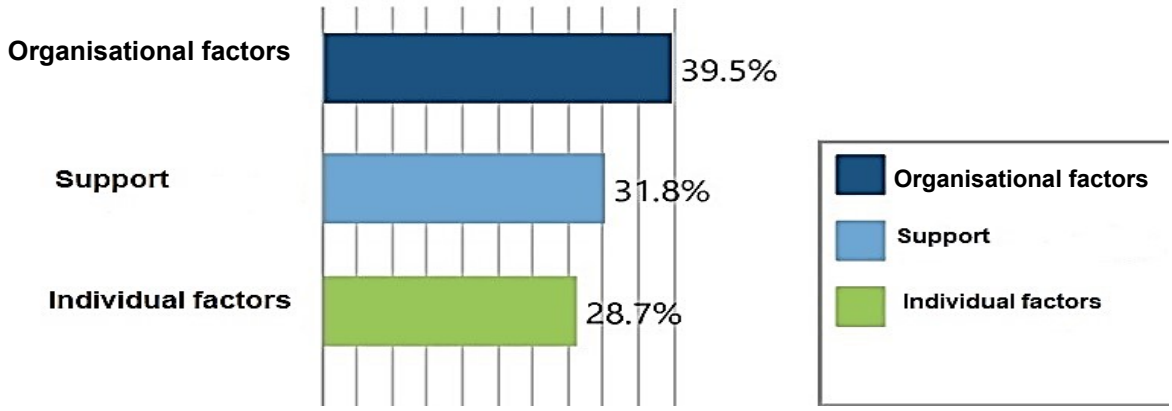


Figure 3. The amount of benefit from the identified indicators

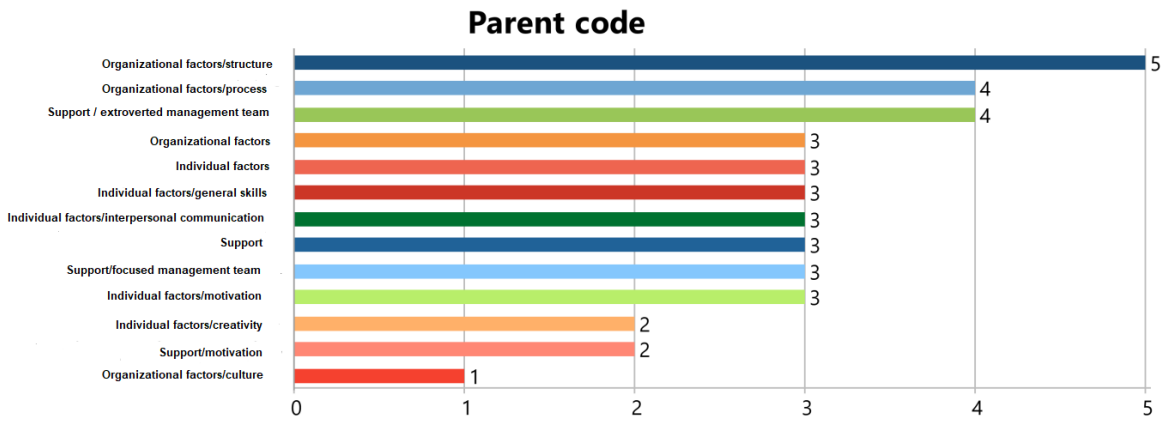


Figure 4. The amount of repetition of identified codes

Based on visibility data, the most repetition is observed in each of the identified variables related to organisational factors. Now, by identifying these cases and receiving the specified relative information, we have implemented the brainstorming technique among experts, which we will discuss further. In Figure 5, all the identified codes and variables are presented in a general diagram, which is displayed here.

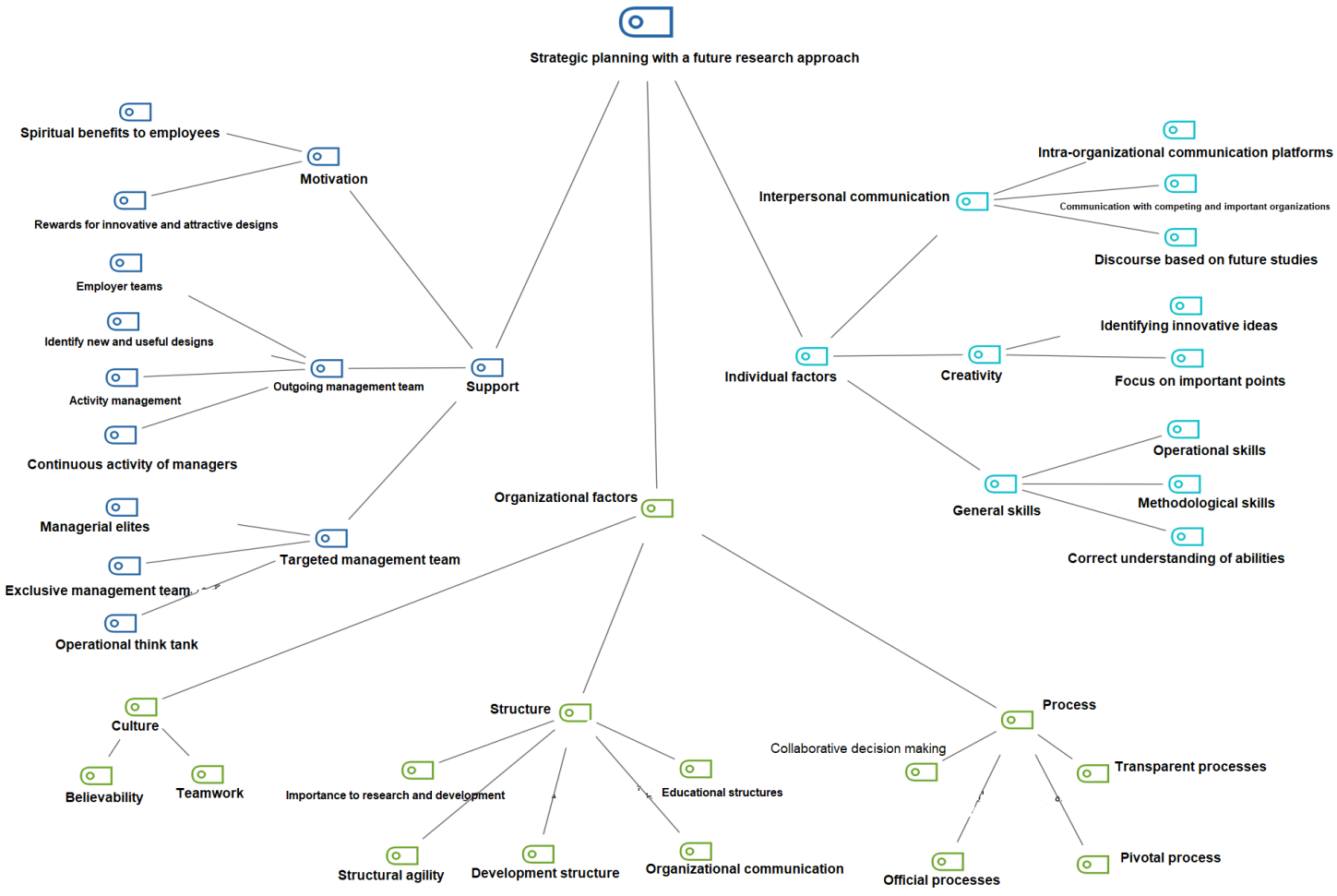


Figure 5. Complete diagram of identified codes

In Figure 5, all the identified codes and identified variables are drawn as a general diagram, which is displayed in this diagram.

### *4.2. Brainstorming technique*

This technique, which is a derivative of the Delphi technique and is formed by using the opinions of experts, in the current research, as previously stated, the number of experts in this research was 15 people and after the initial interview and the results obtained from the codes It has been identified that this technique has been implemented among experts. The implementation steps of this technique are as follows: 1. The researcher's questions are distributed among the experts, and they are asked to express their opinions regarding the questions, with 1 being the lowest score and 5 being the highest score. 2. Then, by averaging the results of the questions, remove the questions whose relative score is less than 3.7 and repeat this technique until all the questions are higher than the obtained value. The point of interest in the table below is that the questions before removal (with lower scores, marked in a different colour) and those remaining after removal are equal to 77, which is the number of questions cited as the questionnaire used in this research. Based on the obtained information and values, questions 34, 53, 57, 63, 69, and 73 were removed from the questionnaire due to not meeting the required quota. Consequently, the researcher's questionnaire was formed after these questions were removed. Additionally, this process has been repeated three times, and the general results of the work are summarised in Table 3.

Table 3. Research checklist

| Row | Rate each of the following factors based on the events of your company/organisation | Score |
|---|---|---|
| 1 | Ideology of the organisation | 4.31 |
| 2 | Credibility of norms in the organisation | 4.29 |
| 3 | Support and acceptance of community beliefs | 4.32 |
| 4 | Supporting and accepting employees' beliefs | 4.36 |
| 5 | Implementation and teamwork | 4.31 |
| 6 | Creating the necessary platforms for research and development | 3.94 |
| 7 | Support and encourage employees to conduct research and development | 3.92 |
| 8 | Creating educational structures | 3.90 |
| 9 | Creation of halls / think rooms | 4.07 |
| 10 | Organisational communication and relationship | 4.33 |
| 11 | Taking advantage of the experiences of organisations | 4.18 |
| 12 | Design of dynamic structures | 4.29 |
| 13 | Giving points to people who are researchers and interested in educational projects | 3.88 |
| 14 | Structural agility | 3.74 |
| 15 | Eliminate cumbersome rules and bureaucracies | 3.79 |
| 16 | Employee agility | 3.76 |
| 17 | Necessary training for employees in order to strengthen the morale of employees | 3.81 |
| 18 | Collaborative creation and decision making | 3.79 |
| 19 | Taking advantage of employee participation in decision making | 3.84 |
| 20 | Using the consulting technique | 3.77 |

| Row | Rate each of the following factors based on the events of your company/organisation | Score |
|---|---|---|
| 21 | Benefit from systematic processes | 4.18 |
| 22 | Using project/process oriented techniques | 4.30 |
| 23 | Benefiting from observational reasoning methods | 3.99 |
| 24 | Benefiting from inductive-contingent techniques | 3.95 |
| 25 | Touchable and understandable processes | 3.5 |
| 26 | Central transparency in decision making | 3.82 |
| 27 | Efficiency of formal and recognized processes | 3.84 |
| 28 | Maintaining hierarchical bureaucratic desperation in the work process | 3.91 |
| 29 | Productivity of the combined process system (traditional-dynamic) | 3.99 |
| 30 | Granting family travel privileges | 3.92 |
| 31 | Holding encouraging parties and making those people's faces | 3.96 |
| 32 | Payment of incentive bonuses to employees | 3.90 |
| 33 | Financial support for people's families | 3.85 |
| 34 | Creating plans for financial institutions and funds | 2.12 |
| 35 | Inviting the family of the top employee and appreciating them | 4.19 |
| 36 | Financial support for employees interested in research projects | 4.06 |
| 37 | Granting incentive leave | 4.33 |
| 38 | Using project-oriented teams | 4.41 |
| 39 | Presentation of plans by managers to employees | 4.35 |
| 40 | Clarification of plans for employees and proper understanding for them | 4.32 |
| 41 | Involvement of managers in the field of work | 4.14 |
| 42 | The intellectual-advisory presence of managers in the field and work process | 4.61 |
| 43 | Benefit from consulting teams | 4.53 |
| 44 | Use of expert opinion in business activities | 3.49 |
| 45 | Carrying out projects/activities in the organisation with the continuous physical presence of managers and employees | 4.08 |
| 46 | Productivity of active managers and employees and checking their suggestions in doing work | 3.94 |
| 47 | Productivity in terms of employees in doing work | 3.99 |
| 48 | Participation of managers and supervisors in doing work | 3.95 |
| 49 | Using experts in management teams | 3.78 |
| 50 | Using the existing opinions within the organisation to present new designs | 3.72 |
| 51 | Using an exclusive management team for the activity | 3.94 |
| 52 | Use of cooperative groups in doing work | 3.91 |
| 53 | Taking advantage of auctions/tenders to do work in the organisation | 2.99 |
| 54 | Create competitive teams/groups to do the work | 3.72 |
| 55 | Allowing new plans to enter the system and holding brainstorming sessions | 4.10 |
| 56 | Creating intra-organisational communication platforms | 4.63 |
| 57 | Creating communication bridges of virtual space for the organisation - employees | 3.06 |
| 58 | Creating web platforms for communication between employees | 4.21 |
| 59 | Establishing a platform and culture of communication among employees | 4.02 |
| 60 | Creating and bridging between organisations similar to the organisation | 4.23 |
| 61 | Benefiting from the experiences and expertise of similar organisations | 4.11 |
| 62 | Modeling the successful plans of competing organisations | 4.09 |
| 63 | Create specific patterns for specific situations | 2.94 |
| 64 | Recognizing the problem of unsuccessful projects of other organisations and giving guidance and counseling to the organisation (in order to increase the credibility of the organisation) | 3.96 |
| 65 | Establishing working group meetings to identify plans | 3.99 |
| 66 | Dialogue with employees to understand their needs and wants | 3.94 |
| 67 | Direct bridging between employees and senior managers/supervisors | 3.90 |
| 68 | Identify ideas | 4.44 |
| 69 | Recognition of new cross-border ideas and implementation of identified projects | 3.18 |
| 70 | Knowing creative and innovative solutions | 3.86 |
| 71 | Giving points to creative and innovative people | 4.01 |
| 72 | Focus on important ideas | 3.96 |
| 73 | Productivity of new research projects | 3.22 |
| 74 | Providing exciting and attractive ideas | 3.82 |

| Row | Rate each of the following factors based on the events of your company/organisation | Score |
|---|---|---|
| 75 | Presenting utilitarian/green ideas (environmentally oriented) | 4.36 |
| 76 | Benefit from staff with ICDL skills | 4.18 |
| 77 | Benefiting from employees with specialized skills | 4.02 |
| 78 | Benefit from employees with consulting skills | 4.21 |
| 79 | Benefiting from employees with problem solving skills | 4.65 |
| 80 | Benefiting from employees with problem simplification skills | 4.53 |
| 81 | Benefiting from the forces with a correct understanding of the organisational problem and goal | 4.17 |
| 82 | Benefit from expert executive teams | 4.24 |
| 83 | Benefiting and correctly understanding the employees' attitude to the problem | 4.33 |

## 5. Discussion and conclusion

Considering the drastic changes and developments in the environment and the high intensity of competition in global markets, every organisation has an urgent need to benefit from strategic planning in order to survive and achieve greater success, as organisations are increasingly important today. They also require strategic planning of their activities, but to date, few studies have been conducted on this topic. Sufficient models of strategic planning for organisations have not been presented. Additionally, the results of the data analysis presented in the previous chapter were used to explain the strategic planning model and future research approach, which encompassed three main dimensions: organisational factors, support, and individual factors. Organisational factors include the criteria of culture, structure, and process. The support dimension includes the criteria of creating motivation, an extroverted management team, and a focused management team. Individual factors also include the criteria of interpersonal communication, creativity, and general skills. The appropriate model for designing and explaining the strategic planning model of the country's forensic medicine organisation with a future research approach is shown in Figure 6.

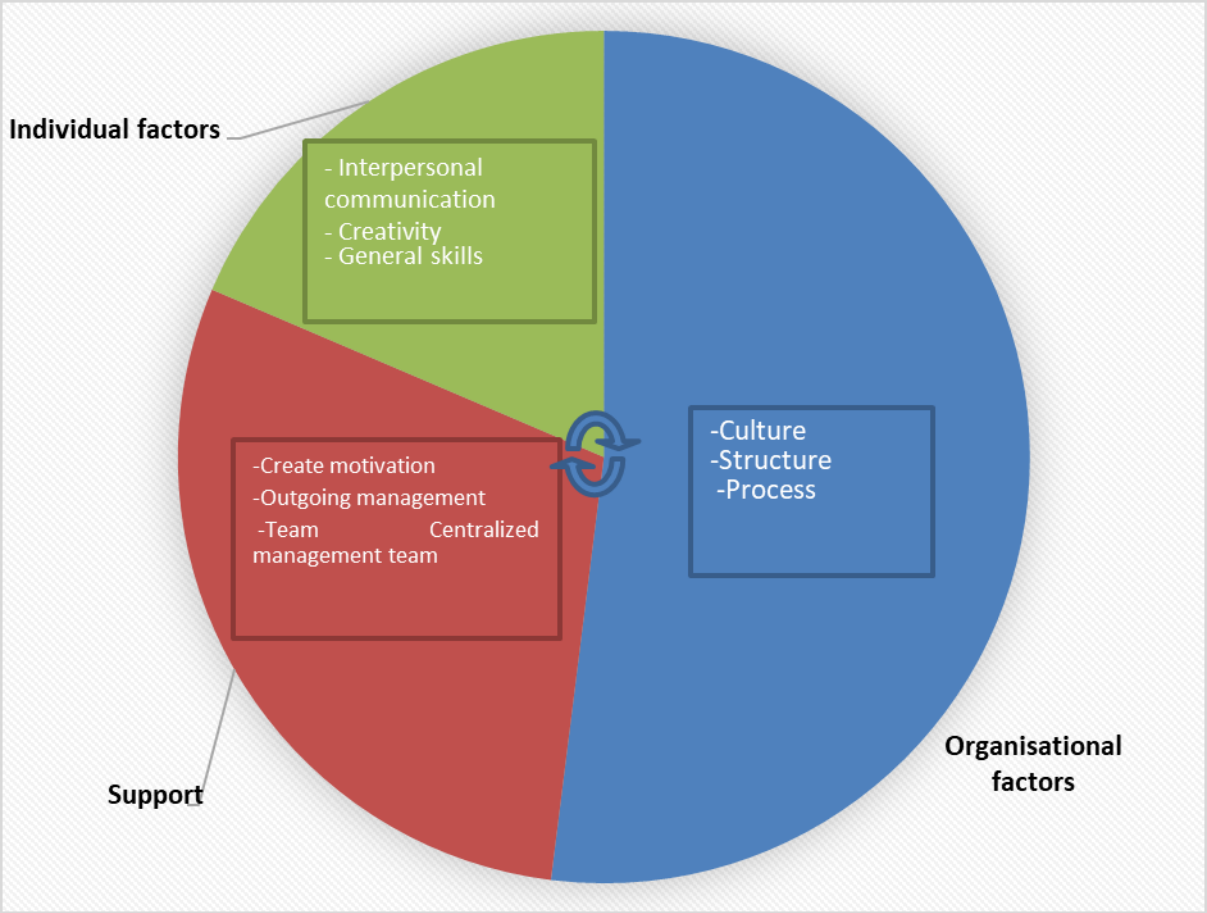


Figure 6. Strategic planning model of the forensic medicine organisation: a futures research approach

In explaining the obtained results, strategic future research works at two levels of organisation and product with two approaches of perception and prediction (interpretation). From the perspective of strategic forecasting and strategic management, future research is at the organisation level. From the perspective of product innovation management, future research should focus on the product level. At both levels of environmental monitoring activities, data interpretation and learning are done separately. As the use of strategic foresight can be significantly helpful in creating value for organisations, not using it or implementing it incorrectly can lead to failure. Organisations play a fundamental role. In a world full of contemporary transformation, far-sighted managers and planners, instead of waiting to welcome the future and making a decision when facing it, being present in the desirable future and with the approach of "looking back from the future to today" scrutinize the development paths and the policies to achieve it draw the desired future.

One of the requirements for development and progress in any field is to have insight into the environment, make timely decisions, and have a comprehensive and targeted plan. It is not possible unless future research is conducted correctly and successfully. Future research is the

knowledge that informs the organisation about future events, opportunities, and potential risks, reduces its corrosive ambiguities, doubts, and concerns, and increases the organisation's ability to make wise choices. In a word, futurology is a tool for intelligently engineering the future. Successful managers select aspects of various management techniques that apply to their environment and disregard the more complex approaches outlined in management texts. One of the most important elements of strategic plans is paying attention to the future and formulating plans and programs based on future conditions.

The presence of multidisciplinary teams and individuals with diverse expertise is necessary for future research processes. Each of these individuals should possess the skills relevant to their field, as well as the necessary skills for future research activities. The existence of a close connection between future research and innovation makes creativity necessary for team members. Since future research team members have different disciplines and expertise, the ability to communicate and discuss the goals and methods used to achieve them is considered one of the most important success factors of future research in any organisation, according to the agreement. Since strategic future research is a systematic process, the existence of visible and transparent processes, a central process, and collaborative decision-making is necessary. Also, the need to adapt the organisation to the phenomenon of uncertainty in the future makes organisational agility one of the success factors of strategic future research. Among other organisational factors that are effective in the success of future research is the extensive organisational communication between different levels of management and employees, and the teamwork culture that has been mentioned before. The support of senior management as a moderating variable is the foundation of a platform that enables a more effective implementation of future research processes. In other words, without the existence of individual and organisational factors, the process of strategic future research will not achieve success, but it can be said that in the absence of the support of the senior manager, significant success may not be achieved. According to the obtained results, the results can be aligned with the research results of Marquez et al. (2025), Mohammed Mousa et al (2024), Sorkhabi et al. (2024), Yaun et al (2024), and Akbarpoor and Tizroo (2022).

### *5.1. Suggestions*

Based on the results obtained from the current research and referring to the results of the research questions, the following suggestions are presented:

In the first step, senior managers and employees of this organisation should always consider the mission of providing forensic medicine services. This issue is especially important in critical situations such as the spread of Corona. In the second step, compliance with safety and medical requirements in this organisation should be achieved through regular training of personnel. This issue has a deep connection with the category of organisational social responsibility in such a way that the primary mission of the forensic organisation can be seen as a continuous relationship between comprehensive service delivery and compliance with safety and medical requirements in this organisation;

Compiling educational topics on medical issues and holding in-service training courses in this regard. The interaction of the forensic organisation with higher education institutions, especially medical and therapeutic centres, to take advantage of the potential of universities in the implementation of operational projects of this organisation. Additionally, conducting training programs for managers and employees alternately and during different seasons ensures they become aware of and sensitive to the organisational issues of forensic medicine, thereby adhering to them. On the other hand, it is essential to create a culture regarding how to deal with clients, with a focus on timely and competent handling at the managerial and employee levels within this organisation. The belief and commitment of senior managers and employees in the forensic organisation in responding to people will lead to an improvement in the managers' attitude and awareness. The benefit and use of consultants who benefit from current knowledge will also significantly improve the attitude and awareness of managers;

Legal obligations to the issues of the forensic organisation with the supervision of direct representatives from the Ministry of Health and Medicine as well as the judiciary. Continuous monitoring of the performance of senior managers in the forensic medicine organisation will require them to comply with medical and legal issues in the accurate, targeted, and legal implementation of forensic medicine. One of the most important things in terms of facilities and technical equipment is the use of the latest and most up-to-date medical tools;

Real and pragmatic prioritization of senior managers and senior decision-makers of the forensic medicine organisation in five-year plans. Effective communication and modelling of projects carried out in other countries will be effective in formulating mid-term and long-term policies of the Ministry of Health. Compilation and explanation of medical and legal regulations and guidelines will be effective in the mid-term and long-term policies of the forensic organisation. Additionally, future research and forecasting regarding social crises is a crucial category that can help prevent the deepening and severity of crises when faced with widespread

crises and enable the organisation's forces, including managers and employees, to deal with the crisis with greater readiness. Correct supervision and control, along with the use of expert and committed personnel in formulating the policies of the forensic organisation, will also be constructive. Another important aspect of adopting appropriate strategies for developing organisational performance in forensic medicine is the redesign of complex and time-consuming rules and regulations, which requires collaboration between the Ministry of Health and the judiciary.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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