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CONTENT

ECONOMIC SCIENCES

Sharipova Kh., Kurbonov A.

MOTIVATIONAL SEMINARS AND TRAINING AS AN
INSTRUMENT FOR PERSONAL STIMULATION AND
DEVELOPMENT OF HUMAN CAPITAL IN HOSPITALITY
BUSINESS.....3

Tuleshova G., Aitkulova S.,

Sharakhimbayeva A.

PROBLEMS OF EFFECTIVE FINANCING OF SOCIAL
POLICY OF KAZAKHSTAN7

MEDICAL SCIENCES

Yakovets K., Hluhovska S.,

Yakovets R., Chornenka Zh.

CHARACTERISTICS OF COMPLICATIONS IN CHILDREN
FROM THE ENT ORGANS AFTER AN ACUTE
RESPIRATORY VIRAL INFECTION.....10

İsmaylov D., Guliyev M., Zeynalova Zh.

PREVENTION OF COMPLICATIONS IN REMOVABLE
LAMELLAR PROSTHETICS.....13

SOCIAL SCIENCES

Doç. Dr. Selami Yıldırım

DEVELOPEMENT OF STRATEGIES FOR COMPETITION
AND MARKET ENTRY IN HEALTH INSTITUTIONS15

ECONOMIC SCIENCES

UDC 338.46 (331.108.45)

MOTIVATIONAL SEMINARS AND TRAINING AS AN INSTRUMENT FOR PERSONAL STIMULATION AND DEVELOPMENT OF HUMAN CAPITAL IN HOSPITALITY BUSINESS

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Abstract

This article reveals the importance of training and professionalism of staff in a hotel. The authors develop a mechanism for training and stages of adaptation of hotel employees as a tool for motivating staff. Seminars and trainings divided into several areas, systematized into courses that clearly formulate the actions of employees in the development strategy of the hotel itself. This training gives employees confidence, where after each training they clearly begin to understand the activities and goals of the organization, thereby motivating them to achieve the strategic goals of the organization.

Keywords: *personnel, personnel training, trainings, seminars, hotel, tourism, personnel motivation, personal stimulation, human capital, hospitality business.*

1. Introduction. Relevance of the research topic.

Against the backdrop of today's economic instability in many countries, the role of tourism remains relevant, and is also one of the most developing sectors of the world economy. The hospitality sector is an important social, economic and cultural category, one of the fundamental components of the tourism industry, which is adequate in development to the main stages of the evolution of human society.

2. "Personal decides everything".

The main slogan for the development of the hotel and tourism business, "Personnel decides everything", is an integral part of the quality production of services, providing not only services, but also customer satisfaction in this industry. Therefore, the hotel industry, as an important infrastructure of the tourism sector, determines the development of the tourism sector.

Modern and developed hotels are increasingly focusing their efforts on the training and professionalism of hotel staff, where the main focus is on motivational seminars that simultaneously develop the professionalism of hotel staff [10, P.573-577].

Motivational seminars and staff training for most hotels is now of particular importance. This is due to the fact that working in a market environment places high demands on the level of staff qualifications, knowledge and skills of employees. And, quite quickly. It is only necessary to systematically apply this "tool" in the team. A side effect of these activities is that it improves the personal lives of employees along the way.

3. Experience of leading specialists of the hotel industry in personnel training.

Each hotel has its own distinctive feature, which is a prerequisite that satisfies the largest number of customers. For example: At the heart of Merriott's work

with personnel is the rule adopted by the founder of this empire: "Take care of your employees, and they will take care of your customers." It is the employees that the organization considers its main capital.

According to N. A. Zaitseva, "motivation" is an internal process of a person's conscious choice of one or another type of behavior, determined by the complex influence of external (stimuli) and internal (motives) factors. The management of the administration of a hotel enterprise should include staff incentive systems that are aimed at the effective management of employees, their labor and personal improvement, training and encouragement [12].

4. Development and systematization of the training program and professional adaptation of hotel staff.

Along with motivational programs, the company provides its staff with the opportunity to learn and improve at the workplace, and new vacancies in hotels are filled in priority from among the employees.

As Kurbanov A.J. notes. "The quality and efficiency of knowledge, of course, as an important capital of the economy and opportunities for growth and development matter. The degree of its effect depends on the correct use of the shaping process. In the learning process, one or more groups of abilities that are directly related to the learning process develop. A continuous learning process increases the quality of human capital, thereby ensuring the development of economic spheres" [5; P. 141-148, 4; P. 65-76].

Based on this, we can say that staff training is the most important means of achieving the company's strategic goal - to improve the service to its guests. The program of training and professional adaptation of hotel staff can be divided into several areas (Fig. 1):

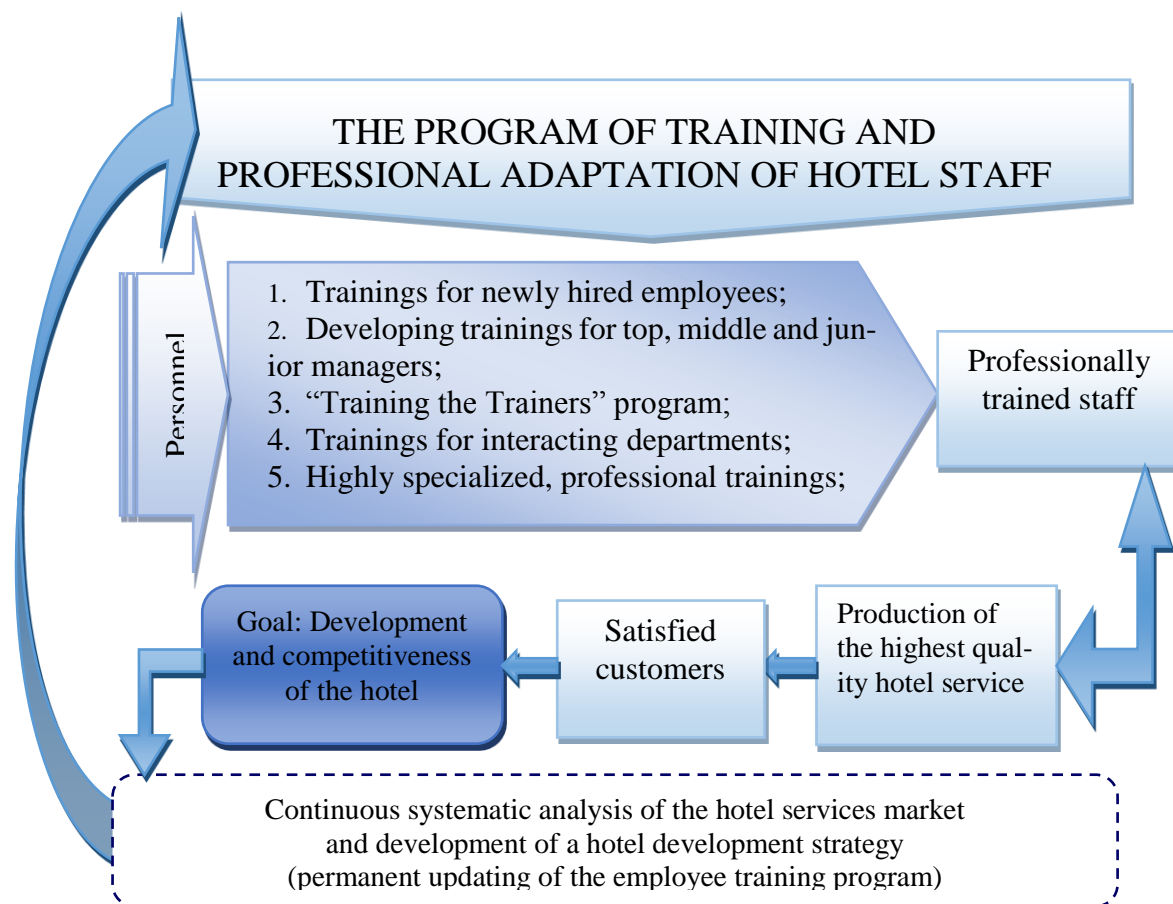


Figure 1. The mechanism of training and professional adaptation of personnel hotels

5. Research Objectives. Analysis of the training program.

Let's analyze all the points of the training program:

1. Further, employees must be trained using a series of trainings developed by the company related to working with the company's clientele [1,2,3]:

- • training (Brand Standards) tells about the brand standards of the given hotel;
- • training "Responses to comments and complaints of clients" (Guest Response) is devoted to working out the technique of responding to complaints and comments of the client;
- • the program "Commitment to the principles of hospitality" (Loyalty) tells about the specifics and prospects of the hotel business;
- • training on the rules of telephone etiquette;
- • sales training;
- • the program "Behavior in case of fire and other extreme situations" (Fire&Emergency);
- • training "Striving for excellence in service" (Service Excellence) examines various aspects of guest service, rules of conduct in standard and non-standard situations;
- • "Certification" program.

The "Certification" program is one of the unique developments of hotel companies - a program of professional adaptation of new employees in the workplace. In each department, the implementation of this program is carried out by managers together with department trainers. It is based on a detailed training plan

for a beginner, which spells out all the skills and knowledge related mainly to professional activities.

After the plan is drawn up, a brochure is developed, which contains a description of all the rules, standards and procedures of work. Each newcomer is assigned an experienced employee who, day after day, step by step, teaches him everything he needs to know and be able to do. The training period under the "Certification" program lasts three months (trial period for a new employee), so that by the end of it, the employee can perform his functional duties on an equal basis with other employees of the department.

1. Trainings for senior, middle and junior managers.

The next direction is developing trainings for top, middle and junior managers. The purpose of these programs is to develop managerial qualities and skills.

Each manager should have a so-called "profile" - a document that contains information about his education, courses, seminars and trainings. This information helps the HR department in analyzing training needs and selecting exactly those training programs for the manager that are most relevant to them [5,8].

Trainings for managers are conducted in the following areas:

- ✓ programs dedicated to the development of leadership qualities;
- ✓ training programs dedicated to the training of managers in a narrow, specialized area (Operations Trainings). These are programs for managers of the Restaurant Service, the Reception and Accommodation Service, the Hotel Services Service, etc.;

- ✓ training "Time Management";
- ✓ training "Delegation of powers";
- ✓ training "E-mail Etiquette";
- ✓ "Believe in yourself" training, one part of which is devoted to negotiating and resisting attempts at psychological manipulation;
- ✓ At the request of many managers, the training "Effective Interview" was created and implemented (since company managers are involved in the interview process when selecting personnel);
- ✓ advanced training programs for managers in the field of information technology.

A modern hotel is a very complex structure, in which many computer programs of varying degrees of complexity operate. Hotels believe that even a middle manager should be fluent in a computer, therefore, attention is paid to training in this area.

2. Trainings for the training of trainers of departments [11].

This is a program called "Train the Trainer". Naturally, events taking place in the hotel, VIP visits and urgent problems for the department are discussed at these mini-trainings.

4. Trainings for interacting departments. A cross-training program has been created for employees of those departments that interact in the course of work (for example, the Reception and Accommodation Service, Butler Service and Hotel Services, Restaurants and Room Service). This is an employee exchange program between interacting departments, when employees get the opportunity to work in another department for several days, which allows them to better know the specifics of the work of colleagues and reduces the possibility of misunderstandings and inconsistencies in work.

5. Highly specialized trainings. One of the areas of work in the field of personnel training is the so-called "professional" trainings. The company attracts its managers, many of whom are high professionals in their field, to conduct various highly specialized trainings. An example is seminars on the study of the features of training in servicing VIP banquets, etc.

Further, the effectiveness of the trainings is determined and evaluated:

The quality of staff training is characterized by the following indicators:

1. *The main indicator is "The Guest Satisfaction Survey".*

By filling out special questionnaires, guests evaluate the quality of services according to various criteria - from the quality of cleaning and the condition of guest rooms and the hotel as a whole to the level of friendliness and attention from the staff (telephone operators also accept any information from customers and enter it into a common database). According to the report, which is compiled on the basis of these assessments, one can judge the quality of service provided in hotels in comparison with other hotels in the world and how much the situation has changed compared to the previous reporting period. If the indicators for any criterion have decreased, then a set of measures (of which training is an integral part) is developed specifically for this "problem zone".

2. *Annual survey of employees' opinions regarding their satisfaction with the quality of working life in the company.*

One of the items of the questionnaire is the item on satisfaction with the quality of the corporate training system, which is recorded in the summary form "Action plan". At the end of the year, an overall analysis (on all indicators) of the effectiveness of training programs and training needs for each department is carried out. Based on this analysis, the department manager draws up a training plan for hotel employees (together with the training department) for the next year, highlighting priority areas of work. Training allows not only to preserve and disseminate among employees the traditional values and priorities of the organizational culture, but also to promote new approaches and guidelines. Thus, the organization increases the value of the human resources at its disposal. The staff gets the opportunity to accumulate knowledge, skills and abilities and transform them into the experience of successful activities in the interests of the company [9, P. 68-78].

Purpose of the training:

1. Increase employee confidence in their abilities;
2. Remove errors in work;
3. Increase orders and profits;
4. Get information about modern standards of the hospitality industry.
5. Master the process of creating and implementing corporate service standards.
6. Understand the factors of effective work with staff in the hotel, how to achieve a real increase in the level of service.
7. Transfer effective tools for working with employees and improving the quality of customer service
8. Unite the team.

The main secret of a successful business in sales, technology development, and in general - go and do it! But with rare exceptions, people are not robots: you can't "push the button" and keep a constant pace. But it is necessary. So that this "go and do" thing does not fade away, many companies order personal growth trainings, classes to increase sales, seminars to motivate employees. They deal with the employees themselves. That's right ... And here the second secret of development becomes relevant, which many underestimate - the regularity of classes. It is impossible to hold an employee development training at the beginning of the year and then expect consistently high self-motivation and performance from all employees throughout the year. Constant and varied training is a big part of success.

Next, consider four tips for motivating staff for management (advice to managers):

1. Team motivation requires sincere communication. This is a simple human participation in the lives of those who are now partly dependent on you. People will appreciate it. The well-being of an employee in this company depends very well on you.

2. Offer people an honest conversation, "no conclusions" at the end of the conversation, and ask a simple question "Why do you think so much about money?"

3. Think more about the success of your subordinates. Then your success will come automatically (after

all, it is your department that will flourish under your leadership). When we are motivated, it is easy and pleasant for us to work.

4. Most importantly, we must not forget that we all need each other! Success is not possible alone. Even a solitary genius needs a "market" for the application of his talent.

Thus, we note that one of the proven methods for the competitiveness of hotels and tourism in general is the professionalism and literacy of tourism personnel. Continuous professional development, staff training and development are tools that increase work efficiency and profits, and help self-development.

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PROBLEMS OF EFFECTIVE FINANCING OF SOCIAL POLICY OF KAZAKHSTAN

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<https://doi.org/10.5281/zenodo.8026573>**Abstract**

The article analyzes the financial support for the development of the social spheres of Kazakhstan. Recently, there has been a significant increase in budget funds aimed at the development of the system of social protection, education, health care, culture. Problems related to financing the social sphere are identified and ways to solve them are proposed.

Аннотация

Мақалада Қазақстанның әлеуметтік салаларын дамытуды қаржылық қамтамасыз ету талданады. Соңғы уақытта әлеуметтік қорғау, білім беру, денсаулық сақтау, мәдениет жүйесін дамытуға бағытталған бюджет қаражатының айтарлықтай өсуі байқалады. Әлеуметтік саланы қаржыландыруға байланысты проблемалар анықталып, оларды шешу жолдары ұсынылады.

Keywords: Social sphere, social policy, financing, financing of the social sphere, Social Protection, state budget

Түйінді сөздер: Әлеуметтік сала, әлеуметтік саясат, қаржыландыру, әлеуметтік саланы қаржыландыру, әлеуметтік қорғау, мемлекеттік бюджет

Әлеуметтік сала - азаматтардың әлеуметтік қажеттіліктерін қанағаттандыру процесіне белгілі бір дәрежеде қатысатын экономика салаларының жиынтығы. Бұл процеске әлеуметтік инфрақұрылымды қалыптастыратын шаруашылық салалар (оның ішінде материалдық өндірісте) және әлеуметтік объектілер кешені тартылған. Бұл, ең алдымен, тұрғын үй және коммуналдық шаруашылық, көлік, байланыс, жол шаруашылығы, сауда, сондай-ақ білім беру, денсаулық сақтау, әлеуметтік қамсыздандыру, дене шынықтыру, спорт, мәдениет және халықтың өмір сүру сапасын (тікелей немесе жанама) анықтайтын кейбір салалар мен мекемелер.

Қазіргі уақытта мемлекеттік бюджеттен әлеуметтік саланың бірқатар шығындары қаржыландырылады, олар өз қызметін экономикалық есептеу және өзін-өзі қаржыландыру қағидаттарында ұйымдастыруға тиіс. Атап айтқанда, мемлекеттік бюджеттен субсидияларды тұрғын үй - коммуналдық және жол шаруашылығы, көлік және байланыс ұйымдары мен кәсіпорындары тұрғын үй қорын күтіп ұстау және жөндеу, халыққа коммуналдық және көлік

қызметтерін, байланыс қызметтерін көрсету, қалаларды, аудандарды және басқа да елді мекендерді абаттандыру, жолдарды күтіп ұстау, жөндеу және т.б. бойынша шығыстарды жабуға болады. Аталған салалар кәсіпорындарының ағымдағы қызметін қаржыландыруды қысқарта отырып, мемлекет босатылған бюджеттік ресурстарды әлеуметтік (өндірістік емес) саланы қалыптастыратын және экономиканың нарықтық емес секторын білдіретін салаларды - білім беруді, мәдениетті, денсаулық сақтауды, әлеуметтік қамсыздандыруды, дене шынықтыру мен спортты, бұқаралық ақпарат құралдарын қосымша қаржыландыруға бағыттауға мүмкіндік алады.

Халықтың өмір сүру деңгейі - өмірге қажетті материалдық және рухани игіліктермен қамтамасыз етілуінен және адамдардың осы игіліктерге деген қажеттіліктерін қанағаттандыру деңгейінен көрінеді. Еліміздің әлеуметтік-экономикалық дамуы халықтың әл-ауқатының жақсаруымен тығыз байланысты екені сөзсіз. Бүгінгі күні Үкімет тарапынан осы бағытта бірқатар заңдар, қаулылар, шешімдер, ережелер және басқа да нормативтік құжаттар әзірленді және

олардың барлығы еліміздің халқын әлеуметтік қолдау, олар үшін құрылатын әлеуметтік инфрақұрылым объектілерінде қызметтер көрсету үшін негіз болады. Жергілікті жерлерде халыққа әлеуметтік қолдау көрсету, әлеуметтік салаларды дамыту және оларды қаражатпен қамтамасыз ету кезінде мемлекеттің бюджеттік жүйесінің қаржылық тұрақтылығы маңызды мәнге ие болатыны белгілі [1, 14 б.]. Алайда, бюджет қаражатын тиімді пайдалану және оларды мақсатты жұмсау негізгі критерий болып саналады.

Соңғы жылдары Қазақстан халқын әлеуметтік қорғау өтініш негізінде азаматтардың жекелеген санаттарының ең өткір, дағдарысты, өмірлік проблемаларын атаулы жедел шешуге бағдарланды. Алайда, уақыт көрсеткендей, бұл тәсіл ұзақ мерзімді әсер етпейді, өйткені ол дағдарыстық жағдайлардың қайталануының алдын алуға, әрбір нақты адамды және жалпы халықты перспективалық әлеуметтік қорғауға бағытталған емес.

Елімізде болып жатқан өмірдің барлық салаларын ретке келтіруге бағытталған реформалар әлеуметтік саладағы өзгерістерді, оның ішінде қоғамның күтуіне бағдарланған халықты көпсалалы мақсатты әлеуметтік қорғаудың жоғары тиімді жүйесін құруды талап етеді, ол адамға өмір бойы әлеуметтік қорғауды қажет ететін түрлі мәселелерді шешуде жан-жақты көмек көрсетуді қамтамасыз етуі керек. Осыған байланысты әлеуметтік қорғауды адамның экономикалық тәуелсіздігі мен әлеуметтік әл-ауқатын жоғалтудың немесе шектеудің әлеуметтік тәуекелдерінен қорғау ретінде қарастырған жөн.

Әлеуметтік қорғауды жетілдірудің жеке проблемаларының ішінде мыналар негізгілері болып табылады:

- мемлекеттік бюджеттен тыс әлеуметтік қорлардың қаржылық жағдайын тұрақтандыру;
- қызметкерлерге жалақы бойынша берешекті өтеу;
- әлеуметтік қызметтерді қаржыландыру көздерін кеңейту;
- халықты әлеуметтік қолдаудың атаулы жүйесін жетілдіру;
- табыс салығының шкаласы мен қойылымдарын түзетудің бірыңғай тәртібін енгізу [2, 65 б.].

Қазақстанда қазіргі кезеңде әлеуметтік мәселелерді шешу мақсатында мемлекеттік және муниципалды мекемелерге ақылы негізде қосымша қызметтер көрсетуге рұқсат етіледі (алайда бағаны құрылтайшы бекітеді), сондай-ақ көрсетілетін қызметтің құнын толық өтей отырып, әлеуметтік салада қызмет көрсететін жеке мекемелер құруға рұқсат етіледі. Осылайша, әлеуметтік салада мемлекеттік (муниципалдық) тапсырманы орындауға субсидиялар түрінде бюджеттік жүйенің бюджеттерінен қаржыландырылатын қызметті жүзеге асыратын мекемелер жұмыс істейді – ақысыз негізде қоғамдық игіліктер және азаматтар мен заңды тұлғалардың қаржылық ресурстары есебінен ақылы негізде бірдей игіліктер.

Халыққа әлеуметтік қызмет көрсетуді өзін-өзі қаржыландыру ауқымының өсуін атап өткен жөн. Бұл бюджеттік ұйымдардың халыққа тегін және жеңілдікпен қызмет көрсету мөлшерін қысқарту үрдісін растау болып табылады. Белгілі бір жағдайларда әлеуметтік қызмет көрсетушілерді коммерцияландыру олардың қызмет көрсету процестеріне оң әсер етеді. Олардағы нарықтық механизмді пайдалану қажет, өйткені бұл әркімнің адами капиталды жинақтауға деген қызығушылығы мен белсенділігін ынталандырады, жеке қажеттіліктерге, нарықтық сұраныс пен ұсынысқа негізделген әлеуметтік қызметтердің сапасы мен икемді өзгеруін талап етеді. Сондай-ақ, коммерцияландыру өндіруші мен тұтынушы тарапынан әлеуметтік қызметтерді өндіруге жұмсалатын шығындардың үнемделуін ынталандырады [3, 5-6 б.]. Қазақстан халқын әлеуметтік қорғау проблемаларын шешу әлеуметтік саланың жай-күйін, халыққа әлеуметтік көмектің қалыптасқан нысандары мен әдістерін елеулі талдауды, қолданыстағы денсаулық сақтау, білім беру, әлеуметтік қорғау, жұмыспен қамту, көші-қон қызметтерін және өзге де жауапты құрылымдарды бағалауды талап етеді.

ҚР әлеуметтік-экономикалық даму жағдайындағы ең проблемалық мәселелердің бірі жұмыссыздықты төмендету болып табылады. Еңбек нарығы - тауар иелері (жұмыс күші) және оның негізгі тұтынушылары - мемлекет пен кәсіпкерлер арасындағы экономикалық қызмет процесінде еңбек жағдайлары мен оның жалақысының мөлшері, жұмысшылардың біліктілік деңгейі, көлемі, қарқындылығы және жауапкершілік дәрежесі туралы қалыптасатын әлеуметтік-экономикалық қатынастардың күрделі жүйесі. Жалпы, экономикалық нарықтық тетіктің элементі бола отырып, еңбек нарығы субъектісінің сапалы әр түрлі мүдделерін үйлестіру мен байланыстырудың құндық принциптерін қалыптастыру негізінде сұраныс пен ұсыныс заңының қолданылуына сәйкес экономика салалары бойынша еңбек ресурстарын бөлу мен қайта бөлудің ерекше функциясын орындайды [4, 56 б.]. Бұл, ең алдымен, еңбекке деген сұраныс пен оның нарықтағы ұсынысы арасындағы ұзақ тепе-теңдік жағдайы тек теориялық модельдерде болуы мүмкін екендігіне байланысты. Демек, қызметкерлерге де, кәсіпкерге де зиян келтіретін кадрлардың ауысуы жиі қажет емес. Екінші жағынан, резервтік еңбек армиясының болуы және нарықтық экономикаға тән экономикалық заңдардың нәтижесі ретінде экономикалық дағдарыс кезеңіндегі жұмыссыздықтың мезгіл-мезгіл өсуі. Осылайша, халықты жұмыспен қамту саласында қолайсыз жағдай қалыптасты, онда артық жұмыс күшінің едәуір массасының болуы ҚР-дағы нарықтық экономиканың одан әрі дамуына нақты қауіп төндіреді. Сондықтан, еңбек нарығын дамыту негізінде нарықтық типтегі жұмыспен қамтуды қалыптастыру - экономикалық және саяси міндеттердің біріне айналады, оны сәтті шешудің негізгі критерийі тауарлар мен

қызметтерді өндіру процесінде жұмыс күшін пайдалану тиімділігін арттыру болып табылады.

Қазіргі жағдайда, әсіресе индустриалды дамыған елдерде жұмыс күшінің құнын арттыру үрдісі басым. Бұл тенденция тұтыну тауарлары мен қызметтерін өндірудегі ғылыми - техникалық революцияның соңғы жетістіктерімен байланысты бірқатар себептерге байланысты, бұл ұзақ мерзімді қымбат тауарларды (тұрмыстық техника, радио және теледидар жабдықтары, жиһаз, автомобильдер және т.б.) және жеке тұрғын үйді сатып алу шығындарын арттыру арқылы жұмысшы табының қажеттіліктерін кеңейтуге мүмкіндік берді. Сонымен қатар, білім мен біліктіліктің жоғары деңгейін алуға шығындар едәуір өсті, онсыз жоғары ақы төленетін жұмысқа орналасу мүмкін емес.

Білім беруді қаржыландырудағы проблемалық сәт студенттердің стипендияларын қаржыландыру болып табылады. Көптеген резидент емес студенттер сырттай оқу формаларына ауысады, ақша тапшылығына байланысты жұмысқа қабылданады, яғни оқудан алшақтайды. Шәкіртақылардың ең төменгі сомасын орташа күнкөріс деңгейіне дейін жеткізу қажет, сондай-ақ студенттерге арналған ғимараттардың бір бөлігі жекешелендірілгендіктен, студенттерге арналған қосымша жатақханалар салу ұсынылды. Осылайша, халықты әлеуметтік қорғауды қаржыландырудың негізгі проблемасы әлеуметтік бағдарламалар бойынша қаражаттың уақтылы түсуі ғана емес, оларды тиімді пайдалану болып табылады.

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MEDICAL SCIENCES

CHARACTERISTICS OF COMPLICATIONS IN CHILDREN FROM THE ENT ORGANS AFTER AN ACUTE RESPIRATORY VIRAL INFECTION

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Abstract

Acute Respiratory Viral Infection (ARVI) is a serious public health problem due to its high prevalence in both children and adults. These are the most frequent diseases in outpatient practice, more than 80% of all calls to family doctors and pediatricians are caused by ARVI. The highest incidence rate was noted in young children. It is in this age category that the course of ARVI is characterized by the development of severe syndromes and bacterial complications that determine the severity and outcome of the disease. Sufferers of ARVI usually do not leave behind long-term stable immunity, and the lack of acquired immunity and a large number of serotypes of ARVI pathogens can contribute to the development of several episodes of the disease during the year in the same patients. In most cases, respiratory viruses cause an acute respiratory viral disease, which proceeds in the usual form, but in some patients, especially young children, it is accompanied by complications from the bronchopulmonary system and ENT organs in the form of bronchitis, bronchiolitis, otitis, rhinosinusitis and others.

Keywords: *Acute Respiratory Viral Infection, ENT diseases, complications, children*

At the first stage of life, protection against most viruses and bacteria is provided by mother's milk, but in the future, the child has to develop its own protective barrier, the creation of which is both hindered and facilitated by internal factors, anatomical and hormonal features of the body, and the external environment. So, for example, periodic overheating or hypothermia can lead to a weakening of the child's body's resistance to infections, which will primarily affect the ENT organs. Children are much more likely to suffer from diseases of the ENT organs compared to older people. This is due to unformed immunity, increased secretion of glands, narrow nasal passages and other anatomical and physiological features.

Chronic ENT diseases can lead to serious health problems. In order to protect your child from ear-throat-nose diseases and their consequences, it is necessary, first of all, to understand the variety and danger of such diseases.

The most frequent causes of diseases of the ENT organs:

- infectious agents (measles, diphtheria, flu);
- environmental factors (cold wind, downpour, dry air);
- injuries, foreign bodies;
- fungal infection of the ear cavity;
- decrease in immunity against the background of exacerbation of chronic pathology, vitamin deficiency;
- changes in the microflora of the nasopharynx (activation of streptococci);
- tumor process;
- frequent allergies;
- incorrect intake of some medicines.

In ENT diseases in childhood, the symptoms are more often bright and with a pronounced pain syndrome than in adults. Parents are usually scared and try to suppress them as soon as possible with improvised, often folk, means, while you should immediately consult a doctor.

As soon as the ARVI and flu season arrives, the respiratory tracts lined from the inside with epithelium, the main task of which is to delay the entry of viruses and bacteria into the body, are usually the first to suffer from a viral infection. But "insidious" microorganisms against the background of violation of the protective barriers of the nasopharynx, a decrease in non-specific and specific anti-infective immunity, under the influence of hypothermia, neuropsychological overstrain and adverse environmental influences, still get into the cells of the upper respiratory tract, multiply in them and cause diseases. Protective barriers and immunity are imperfect in children, so they get sick more often.

Children of the first year, especially in the first 6 months of life, are a high-risk group for the adverse course of respiratory tract infections. A child of this age is characterized by:

- physiological morphofunctional immaturity of the respiratory tract and immune system;
- unstable microbiosis of the mucous membranes of the upper respiratory tract, which in adults is a powerful natural anti-infective barrier.

Anatomical and functional features of the respiratory system in children create prerequisites for easier breathing disorders than in adults. The most frequent causative agents of acute respiratory infections with damage to the lower respiratory tract are influenza, parainfluenza, and respiratory syncytial virus. The upper parts are more often affected by coronaviruses, ad-

enoviruses and entero- and rhinoviruses, herpes simplex viruses type 1 (HPV-1), Epstein-Barr virus, although their role in the damage of the lower parts of the respiratory tract cannot be completely excluded. Adenovirus infection, in addition to respiratory manifestations, is accompanied by conjunctivitis.

Other reasons for the development of GRI are viral-bacterial associations, bacteria, fungi, protozoa. The viral-bacterial and bacterial nature of respiratory diseases is more characteristic of newborns, infants and

young children. Viral and bacterial lesions are associated with the activation of microbial autoflora in connection with a violation of the barrier function of the respiratory tract and a decrease in the body's protective properties, as well as superinfection with bacterial agents. The addition of a bacterial infection leads to an increase in the severity of the disease and may be the main cause of an adverse outcome.

At the same time, there are primary bacterial infections of the respiratory tract (Table 1).

Table 1

Clinical syndromes of ARI of bacterial etiology

Causative bacteria	Main syndromes
<i>Streptococcus pneumoniae</i>	Otitis, sinusitis, pneumonia, conjunctivitis
<i>Haemophilus influenzae capsular</i>	Epiglottitis, pneumonia
<i>Haemophilus influenzae capsuleless</i>	Sinusitis, otitis, conjunctivitis
<i>Moraxella catarrhalis</i>	Otitis, sinusitis (mainly in children who previously received antibiotics)
<i>Staphylococcus aureus</i>	Otitis, purulent sinusitis, pneumonia
<i>Mycoplasma pneumoniae</i>	Nasopharyngitis, bronchitis, conjunctivitis
<i>Chlamydophila pneumoniae</i>	Pharyngitis, tonsillitis, lymphadenitis, bronchitis
<i>Chlamydophila trachomatis</i>	Conjunctivitis, bronchitis, pneumonia in children 0–6 months.

According to statistics, more than 50% of all appeals to children's polyclinics are related to diseases of the ENT organs. It is at an early age that these diseases pass with the greatest complications, so it is necessary to diagnose and treat them in time.

Children often develop acute ENT diseases, which are characterized by a violent onset, high intoxication of the body and a rapid course. A viral infection depletes the immune system, and the disease is often accompanied by complications of a bacterial nature. The risk of such complications is highest in the absence of timely and comprehensive treatment and in patients with chronic inflammatory diseases of the upper respiratory tract, nasal sinuses, oral cavity, etc. Among them are bronchitis, pneumonia, sinusitis, otitis, pyelonephritis, meningitis, heart failure and others. Some complications are asymptomatic, but as a result immunity decreases, the risk of cancer increases, and old age comes earlier.

Classic flu and acute respiratory infections pass, as a rule, in 4-10 days. If the baby is sick longer, this is a reason to think about the prevention of complications. In this case, a thorough diagnosis and additional treatment, which is different from the treatment of ARI and flu, is necessary.

Among the main complications after the flu in children, the following should be highlighted:

1. Bronchitis and pneumonia.

Let's immediately note that a viral infection often immediately causes bronchitis or pneumonia. It is not a complication or secondary infection. Symptoms of the disease appear immediately and subside as treatment progresses. But if after several days of therapy there is a sharp deterioration of the condition, additional symptoms appear, you can think about the addition of a secondary infection. The following symptoms deserve special attention (let's be clear right away, the child's symptoms and complaints are not the same thing):

Cough. Pay attention to its intensity (became more frequent or stronger), time and situations that aggravate

the cough (in the morning, in a lying position, when getting out of bed).

High humidity. It will be important for your doctor to know whether sputum comes out when you cough, what color it is (transparent mucous or purulent - yellowish-green), how easily it is coughed up.

Pay attention to the complaint of chest pain (sometimes the child can even show the place where it hurts).

Difficulty breathing and connection with inhalation and exhalation.

Temperature. If the temperature rises, pay attention to what time of day it is.

Increased sweating.

You should inform your doctor about any change in the child's condition, who can add antibacterial drugs, expectorants and antitussives to the treatment.

2. Sinusitis

This term is called inflammation of the paranasal sinuses. In total, a person has four groups of sinuses. Most often, inflammation of the maxillary sinuses (sinusitis) and frontal sinuses (frontitis) develops. Normally, additional sinuses are filled with air. Infectious rhinitis causes swelling of the mucous membrane that lines the nasal passages. This disrupts the connection between the sinus cavity and the nose and makes the sinus a closed space, ideal for bacterial growth. The beginning of sinusitis is manifested by the appearance of pain on both sides of the nose. Due to the fact that the maxillary and frontal additional sinuses are connected by passages, a few days after the onset of sinusitis, frontitis can develop, manifested by pain in the forehead. The diagnosis is made on the basis of an examination (at an ENT doctor) and an X-ray. Antibacterial drugs, vasoconstrictors (it is important to ensure the outflow of secretions from the inflamed sinus), physiotherapy (warming up, inhalations) are added to the treatment.

3. Otitis

Young children - under the age of 3 are especially prone to otitis. According to statistics, 80% of children at this age suffered at least one episode of otitis media.

This is due to the peculiarity of the structure of the auditory tube - it is shorter than in adults, which makes it more vulnerable to inflammatory processes. Otitis begins with a feeling of congestion and noise in the ear. And then it is difficult not to notice the symptoms of otitis - there is a sharp shooting pain in the ear, which can be so strong that the child loses sleep and appetite. The pain is in the teeth, in the neck, in the eye, and the temperature rises. Self-medication for otitis is dangerous, therefore, if pain occurs in the ear, you should immediately consult a doctor.

The list of complications after ARVI and influenza in children is quite long, and diseases often caused by ARVI can pose a greater danger to frail children's health than the flu itself.

How to avoid complications after ARVI in children - strike at the root cause

The main reason for the development of complications is insufficient work of the immune system. The protective system weakens, throwing all its forces to destroy viruses. In addition, viruses have a harmful effect on cells and disrupt the permeability of capillaries. The latter opens additional gates for infection (it is even easier than before to get into cells). Therefore, during the treatment of viral respiratory diseases, agents for strengthening immunity are often prescribed. They affect the root cause - they destroy the virus and strengthen the body's immune response.

Prevention of complications:

In order to prevent ENT disease in children, it is necessary to take the following preventive measures aimed at increasing immunity and reducing the likelihood of infection:

- limiting contacts with patients;
- systematic hardening (without supercooling);
- maintenance of normal air humidity in the room;
- ventilation of premises (without drafts);
- inclusion of fresh vegetables and fruits in the diet;
- taking vitamins.
- vaccination is one of the ways to prevent the disease, and accordingly to avoid complications (3).
- consulting a doctor within 48 hours after the first signs of the disease appear.
- fulfillment of all doctor's appointments.

It is very important to constantly monitor the child's health in order to avoid dangerous conditions.

You should contact the ENT if you have the following symptoms:

- ✓ dry or wet cough;
- ✓ sore throat, difficulty swallowing;
- ✓ chronic infection of the nasopharynx (pharyngitis, tonsillitis, tonsillitis, adenoids);
- ✓ runny nose, chronic nasal congestion;
- ✓ violation of breathing through the nose (for example, an open mouth in a dream, or snoring);

- ✓ pain in the ears;
- ✓ frequent colds in the child.

These symptoms can be a signal of the beginning of otitis, sore throat and cold.

Any disturbance in the functioning of the respiratory or hearing organs in a child is also a signal that you need a consultation with an ENT doctor.

Despite the fact that ENT diseases are difficult for children to tolerate, treatment always arouses their curiosity. In the therapy of ENT diseases, various devices and devices are used, the type and device of which distract the child from negative emotions.

Conclusions. The dependence of the clinical course of otorhinolaryngological diseases on age-related anatomical and physiological features is most pronounced in newborns and infants, which constantly requires the qualified supervision of an otorhinolaryngologist. There are a number of diseases that are characteristic only of this age, and which occur less often as the child grows and develops.

The basis of the prevention of otorhinolaryngological diseases and their complications should be considered the examination of newborns and infants with the participation of an otorhinolaryngologist who has a clear idea of the age-related features of the course of diseases of the ENT organs.

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PREVENTION OF COMPLICATIONS IN REMOVABLE LAMELLAR PROSTHETICS

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The factors influencing the tissues of the oral cavity and the prosthetic bed, which contribute to the unsatisfactory functioning of removable lamellar dentures, as well as their premature failure, have been studied. Measures for the prevention of complications are summarized, which are divided into two groups: general preventive action and special therapeutic and preventive measures.

Keywords: *removable plate dentures, prevention, general preventive and special treatment and preventive measures.*

According to many scientists, 70% - 95% of the population suffer from tooth loss. Preservation of the last tooth on the jaw, which does not have antagonists, is not unreasonable, especially in patients who are prosthodontized for the first time, since this tooth improves the fixation of the prosthesis, gives the patient greater confidence in using the prosthesis and greatly facilitates adaptation to it. In addition, with the removal of the last pair of teeth of the antagonists, the fixed interalveolar height is lost, which leads to a premature and complex restructuring of the neuroreflex regulation and contractile function of the masticatory muscles, and also significantly complicates the exact determination of the central ratio of the jaws [1]. Indeed, when a tooth is removed, irreversible changes occur in the periodontium and atrophic processes in the bone tissue become especially noticeable, since edentulous jaws are not adapted to the perception of chewing load [5, 13]. These morphological and functional changes in the masticatory apparatus significantly complicate chewing food and reduce the effectiveness of prosthetics [2]. Resorption of the residual alveolar process in edentulous patients is a chronic, progressive, irreversible process. It occurs most intensively in the first 5 months after tooth extraction, then the resorption of the alveolar process is practically unlimited. Although it is quite difficult to predict the level of resorption in each patient, it is known that anatomical, biological, mechanical factors are involved in this process [3]. that the resorption of the alveolar process when using partial dentures is 1/8 of the level of resorption when using complete dentures [6]. atrophy of the upper and lower jaws occurs unevenly [4]. With the loss of teeth, atrophy of the bones of the jaws occurs both in the vertical and in the horizontal directions. Moreover, the upper jaw atrophies centripetally (in the vestibular-oral direction), and the lower jaw - in the centrifugal, that is, in the opposite direction. In this regard, not only the distance between the tops of the alveolar processes increases, but also an additional unfilled volume appears on the vestibular side in the upper

jaw and on the lingual side in the lower jaw. To this should be added the uneven nature of the atrophy of the alveolar processes. To create conditions for stable balance of removable dentures, only the location of the boundaries of the basis in the zone of muscle balance is not enough [7,9]. the middle of the alveolar process of the upper and lower jaws are of direct importance for the stabilization of complete removable dentures [7]. The importance of finding ways to solve the problem of the final saddle is obvious, since premature removal of abutment teeth due to loosening by support-retaining elements reaches 42% [11] Functional changes associated with the loss of teeth, causing microscopic and macroscopic restructuring of the jaw bones. As a result, the resorption process is accelerated, bone tissue atrophy occurs, namely, atrophy from inactivity [9]. Therefore, the issue of changing the alveolar processes, the degree of atrophy of which is an important factor in ensuring fixation of removable dentures, is given great attention [10].

The experience of using removable dentures shows that they not only restore the chewing function, but also create functional irritations in the alveolar processes, preventing the development of atrophy. In addition, they stimulate regenerative processes in the jaw bones and favorably affect the formation of the alveolar ridge [12]. Based on our observations, we can conclude that atrophic processes under removable prostheses in subordinate tissues occur continuously and are uneven. However, it should be emphasized that the duration of full-fledged use of complete dentures can be increased if the application of the technique for obtaining imprints includes features of the state of the mucosa, that is, its compliance [2]. Of particular importance for preventing complications is the preparation of the prosthetic bed before prosthetics, including surgical alignment. ridges, which ensures the success of fixing the prosthesis and preventing prosthetic inflammation. Specialized therapeutic and prophylactic methods are aimed at neutralizing the side effects of the basis of the

prosthesis, and correcting the main pathogenic factors [12]. Plastic dentures in the oral cavity experience significant functional loads. Therefore, the materials for their manufacture must have high physical and mechanical properties [11]. The operation of products from basic acrylic plastics occurs in the oral environment with the constant action of oral fluid, food debris, microorganisms and their metabolic products, various loads [1]. There is an interdependence between the type of overload on removable lamellar dentures, the strength of the basis of the prosthesis, the structure and mechanism of its destruction.

After the complete loss of teeth, the dentition is subject to involutional processes, leading to significant functional and morphological changes. The anatomical shape and topographic relationship of the soft and hard tissues of the face change. There are changes in the temporomandibular joint [3, 4]. The quality of prosthetics is determined not only by the state of the tissues of the prosthetic bed, it largely depends on the sequence and content of clinical and laboratory manipulations, the properties of the materials used, and the psychological preparedness of the patient [11].

Analyzing the scientific achievements of the use of removable dentures and their shortcomings, it can be noted that the data clearly indicate the feasibility of carrying out preventive measures. Summarizing the measures taken to prevent complications, they can be divided into two groups: general preventive action and special therapeutic and preventive measures. General preventive actions include the preparation of a prosthetic bed, the use of a prosthesis base made of a material that is indifferent to the tissues of the oral cavity, and the hygiene of dentures. Special therapeutic and preventive measures include reducing the direct contact of the base of the prosthesis with the mucosa. In these cases, various means are used, in particular, shielding of the base of the prosthesis, special hygienic substances for the care of prostheses, septic mouth rinses, a number of insulating pads and increasing the body's defenses through the use of adaptogenic drugs.

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SOCIAL SCIENCES

DEVELOPEMENT OF STRATEGIES FOR COMPETITION AND MARKET ENTRY IN HEALTH INSTITUTIONS

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Abstract

When developing competition and market entry strategies, health institutions must know which strategies are likely to work. However, efficient implementation of strategies is also crucial because sometimes we witness health institutions failing due to improper implementation of suitable and effective strategies.

In the twenty-first century, health institutions must use competition and market tools with zero- error strategies. On the other hand, health institutions must have a good knowledge of the structure and characteristics of the service market to develop competition and market entry strategies. This study provides a comprehensive survey of the literature on the concepts of market attractiveness, market concentration, and market growth and attempts to examine how health institutions develop their competition and market entry strategies.

Keywords: *Market Appeal, Market Concentration, Market Growth Rate*

INTRODUCTION

The success of a health institution depends on its ability to analyze the structure of its service market and develop implementable strategies based on factual data and observations. It is because, for health institutions operating in an uncertain and volatile environment, it is vital to gain knowledge about the structural characteristics of the targeted market before entering it.

Regarding the structure of target service market, it is essential to know certain defining features such as the number of health institutions already operating in the market, ease of entry into the market, variety of products offered in the market, degree of competition between institutions in the market, the health institution's growth potential in the market, ratio of insured population in the market, and the average rate of profitability in the market. For instance, if there are a few health institutions already operating in the market, it may represent an opportunity for the health institution targeting to enter the market. Similarly, the health institution may enter the market by advertising the use of robot technology in open-heart surgeries. On the other hand, the excessive intervention of the Social Security Institution (SSI) on prices can be a threat to the health institution. Likewise, the Ministry of Health's stipulation that private health institutions must make agreements with SSI may also be perceived as a threat by the entrant private health institution.

PURPOSE OF THE STUDY

Market and competition analysis tools are employed to determine how competition and market entry strategies can be developed in health institutions. Hence, the aim of the study is to discuss how health institutions can use market and competition analysis tools properly to identify the structure and characteristics of the service area when developing their competition and market entry strategies. In this process, it is especially important for the health institutions to distinguish the attractiveness factors for the service area. This is because of the fact that the impact levels of attractiveness factors and the weights of service areas form the basis

for developing implementable and evidence-based strategies. Furthermore, the study aims to discuss market concentration and market growth rate concepts because understanding these concepts are also crucial in developing competition and market entry strategies.

METHODOLOGY

In accordance with the purpose of the study, we conduct a detailed and systematic review of the related literature on competition and market entry strategies for the health institutions. Because the findings of the theoretical and empirical literature point to the importance of feasible competition and market entry strategies in all economic sectors, we also try to provide a general assessment of the main competition and market strategies employed by health institutions.

THE TOOLS FOR ANALYZING MARKET AND COMPETITION

To develop suitable competition and market entry strategies, health institutions must determine the structure and characteristics of current and prospective the service areas (markets).

Market Attractiveness

The attractiveness of a service area (market) refers to the opportunities that the service area provides or is likely to provide to the health institutions. The attractiveness of a service area for a private health institution is determined by factors such as demand, revenue, profit, growth potential, competition intensity, and the growth potential of the market. As the scope of opportunities an area provides to a health institution increases, its attractiveness also rises. Market attractiveness analysis serves two purposes: to decide which region to serve and to determine which health services to provide. The steps of market attractiveness analysis are summarized below (Hax and Majluf, 1983; Wind and Mahajan, 1981):

Step 1. Determining Attractiveness Factors Pertaining to the Service Area: In the first step, environmental factors to be considered when determining the attractiveness of the service area are identified. Examples of these factors include:

- Size of the market (population, demand),
- Demographic characteristics of the region's population (income, percentage of insured population),
- Growth rate of the market,
- Profit rate,
- Degree of competition,
- Government incentives,
- Barriers to entry into the area, and
- Household/per capita income.

Step 2. Determining the Relative Importance of Factors (Factor Weights): The attractiveness factors identified in the first step may not be equally important. Some factors may be more important than others. If the importance level of the factors is different from each other, it is necessary to determine the factor weights

that reveal these differences. The weights must be determined in a way to reflect the relative importance of factors. For instance, if the growth rate of the market is the most important factor, its weight should be higher than the weights of other factors. The main purpose of factor weighting is to calculate a single "attractiveness score" that takes into account all factors with different levels of importance.

Step 3. Ranking of Service Areas: In this step, service areas are ranked individually based on the criteria identified in the first step. To determine the ranking of a service area, we also assign a rating score for each factor ranging from 1-5 (1=Not attractive at all, 5=Very attractive). Table 1 provides an example of factor weighting, rating, and the calculation of attractiveness score for a service area.

Table 1.

**An Example of Service Area Factor Weighting
and the Calculation of Attractiveness Score for a Service Area**

Attractiveness Factors	Factor Weights	Ratings	Attractiveness Score
Population	0,14	5	0,70
Quantity of Demand	0,15	4	0,60
Market Growth Rate	0,22	5	1,10
Profit Rate	0,18	5	0,90
Share of Insured Population	0,10	3	0,30
Degree of Competition	0,16	2	0,32
Government Incentives	0,05	1	0,05
Total	1,00	-	3,97

Step 4. Calculation of Attractiveness Score: In the final step, attractiveness scores of each factor are calculated by multiplying the factor weights with the factor ratings. The attractiveness scores are then added up to determine the overall attractiveness score (in our example, it is 3.97) of the market (or area). The market attractiveness score ranges between 1 and 5. By using statistical data classification techniques, it is possible to group the attractiveness scores into three main categories:

- If the overall attractiveness score is less than 2.33, the market is considered low attractive,
- If the overall attractiveness score is between 2.33 and 3.66, the market is considered medium in attractive, and
- If the overall attractiveness score is bigger than 3.66, the market is considered high attractive.

Market attractiveness analysis can help with decisions about which market to enter and determining of how the attractiveness of the market changes over time. Hence, the market attractiveness analysis needs to be repeated continuously. Over time, the attractiveness level of the service area may decrease due to several reasons such as destructive competition or a decrease in demand. In such cases, health institutions' managers may decide to exit from that region or follow a downsizing strategy and stop providing some services.

As emphasized above, health institutions conduct market attractiveness analysis not only to determine the service area, but also specify the services to offer, change offered services, or discontinue offering. In this case, the attractiveness factors are determined based on the service to be offered/being offered. An example of a service/product-based market attractiveness analysis is presented in Table 2.

Table 2.

An Example of Service/Product-Based Market Attractiveness Analysis

Attractiveness Factors	Weights	Services					
		Cardiology		Neurology		Oncology	
		Ratings	Attractiveness Score	Ratings	Attractiveness Score	Ratings	Attractiveness Score
Population	0,14	4	0,56	4	0,56	5	0,7
Quantity of Demand	0,15	5	0,75	3	0,45	5	0,75
Market Growth Rate	0,23	5	1,15	2	0,46	5	1,15
Profit Rate	0,18	5	0,9	3	0,54	5	0,9
Share of Insured Population	0,1	3	0,3	3	0,3	4	0,4
Degree of Competition	0,11	2	0,22	2	0,22	3	0,33
Government Incentives	0,09	1	0,09	1	0,09	4	0,36
Total	1		3,97		2,62		4,59

Market attractiveness analysis also provides signals for the potential competition the health institution will face in the future. As the attractiveness of a market increases, so does the likelihood of new health institutions entering the market, and therefore, the degree of competition increases. Service-based market attractiveness analysis guides managers to decide which services to start offering or increase the service capacity of some departments (for example, opening a new oncology examination office, or increasing the number of beds in the oncology clinic). Similarly, market attractiveness analysis can provide early warning signals about which services current or potential competitors may start offering or increase the service capacity of some departments in their institutions. Market attractiveness analysis not only helps determine which services to offer but also guides managers on which services to stop offering.

An important aspect of market attractiveness analysis is that its results can be combined with information about the strengths and weaknesses of the health institution to develop institutional strategies. For example, the GE-McKinsey Matrix provides important information to managers in the strategy development and evaluation process by combining the findings of the market attractiveness analysis with information about the strengths and weaknesses of the health institution.

Market Concentration

Market concentration is one of the most important concepts that provides information about the structure of a market. Market concentration refers to the number of institutions in a market and the amount of service each institution provides. If a few health institutions provide a large portion of the services offered in a market, the degree of market concentration is said to be high. A rise in market concentration implies that a few health institutions dominate the market, and therefore, competition conditions are disrupted. Furthermore, high market concentration is an important barrier to entry into a market. On the other hand, if many health institutions of similar sizes are operating in a market, the

degree of market concentration will decrease, and competition in the market will intensify. As the competition conditions converge to the perfect competition conditions, it limits the power of institutions to change the market structure through price settings, and therefore, barriers to entry into the market weaken. The level of market concentration also provides managers with the opportunity to identify strong and weak competitors in the market. A high degree of market concentration indicates that there are a few competitors in the market, but they are very powerful rivals.

The M-firm concentration ratio and the Herfindahl-Hirschman index are the two most important criteria used to measure market concentration. We provide a summary of the methodology behind the calculation of these two criteria below.

The Firm Concentration Ratio (CR_M)

M-firm concentration ratio shows how much of the health services offered in a region is produced by M large health institutions. M is usually chosen as four, eight, or 12. For example, CR_4 represents the concentration ratio calculated by considering the market shares of the four largest health institutions, while CR_8 denotes the concentration ratio calculated by considering the market shares of the eight largest healthcare institutions. The M-firm concentration ratio is calculated as follows:

$$CR_M = \sum_{i=1}^m S_i$$

where m is the number of businesses with the largest market share (m is generally selected as 4, 8, 12), and S_i is the market share of the i th health institution.

We can demonstrate the calculation of CR_M with an example using the data provided in Table 3. Assume that there are 12 hemodialysis centers in a city. The hemodialysis services (session count) provided by these 12 centers are given in Table 3. If M is chosen as 4, what will be the concentration ratio?

Table 3.

An Example of the Calculation of CR_M for a Market with 12-Hypothetical Hemodialysis Centers		
Hemodialysis Centers	Session Counts	Market Share (%)
M1	140.400	30
M2	122.304	26
M3	75.504	16
M4	68.796	15
M5	15.600	3
M6	12.636	3
M7	9.984	2
M8	7.644	2
M9	5.616	1
M10	5.616	1
M11	3.900	1
M12	3.900	1
TOTAL	471.900	100

To calculate the concentration ratio, first, we add up the hemodialysis session counts provided by the 12 hemodialysis centers in the region to find the total amount of services provided in the region (471,900). Then, we calculate the market share of each hemodialysis center as the division of the amount of service provided by each center to the total amount of service provided in the region. For example, the market share of the hemodialysis center M1 is calculated as $140,400/471,900 = 30\%$.

Since $M=4$ is selected, we add up the market shares of the four hemodialysis centers with the highest market share. Then the concentration ratio is calculated as follows:

$$CR_4 = \sum_{i=1}^4 S_i = \% 30 + \% 26 + \% 16 + \% 15 = \% 87$$

The concentration ratio takes a value between 0 and 100. Depending on its value, the following conclusions can be drawn about the market:

- If $0\% < CR < 40\%$, the market is said to be fully competitive,
- If $40\% < CR < 60\%$, the market is said to be partially oligopolistic, and
- If $60\% < CR < 100\%$, the market is said to be highly oligopolistic and may exhibit monopolistic characteristics.

Herfindahl-Hirschman Index (HHI)

Another commonly used measure to determine market concentration is the Herfindahl-Hirschman Index. Like the M-firm concentration ratio, the Herfindahl-Hirschman Index is calculated based on the market shares of health institutions in a region. The Herfindahl-Hirschman Index (HHI) is equal to the sum of the squares of the market shares (S) of the health institutions in a region:

$$HHI = \sum_{i=1}^n S_i^2$$

where S_i is the market share of the i th health institution and n represents the number of healthcare institutions in the market.

We can demonstrate the calculation of HHI with an example using the data provided in Table 4. The first two columns of the table provide information on the hospitals and the amount of patient day services they offer in the region. Assume that the 12 hospitals in the region provide 981,000 patient day services. We can calculate the market share of each hospital (S_i) as the division of the amount of its service to the total amount of service provided in the region (981,000). Then Herfindahl-Hirschman Index is calculated by taking the sum of squares of S_i , which is equal to 1,779.8 in our example.

Table 4.

An Example of the Calculation of Herfindahl-Hirschman Index

HOSPITALS	PATIENT DAYS	MARKET SHARE (S)	S^2
HOSPITAL 1	270.000	27,52	757,51
HOSPITAL 2	234.000	23,85	568,98
HOSPITAL 3	180.000	18,35	336,67
HOSPITAL 4	64.800	6,61	43,63
HOSPITAL 5	36.000	3,67	13,47
HOSPITAL 6	36.000	3,67	13,47
HOSPITAL 7	32.400	3,30	10,91
HOSPITAL 8	32.400	3,30	10,91
HOSPITAL 9	28.800	2,94	8,62
HOSPITAL 10	25.200	2,57	6,60
HOSPITAL 11	23.400	2,39	5,69
HOSPITAL 12	18.000	1,83	3,37
TOTAL	981.000	100,00	1.779,82

The Herfindahl-Hirschman Index ranges from 1 to 10,000. The rise in the value of Herfindahl-Hirschman Index indicates that the degree of market concentration increases, which implies that market conditions shift from being competitive to oligopolistic, even monopolistic. Specifically, if the value of the Herfindahl-Hirschman Index exceeds 1,800, competitive conditions are said to be disrupted.

Market Growth Rate and Market Share Analysis

The size of the market is defined as the total quantity of services provided by all health institutions in the

market. It should be emphasized that there is a well-defined market for each health service. As an example, we present the number of outpatient treatment services provided by hypothetical health institutions in a region (market) in Table 5. In 2013, five health institutions provided 1,000,000 outpatient services in the region. In this case, the market size will be measured as 1,000,000 outpatient services. The growth rate of the market refers to the proportional increase in the quantity of service provided from the previous period. Using the information in Table 5, we can calculate the market growth rate between 2013 and 2014 as follows:

$$\text{Market Growth Rate} = \frac{Q_{2014} - Q_{2013}}{Q_{2013}} = \frac{1.150.000 - 1.000.000}{1.000.000} = \% 15$$

Table 5.

An Example of the Market Size and the Calculation of Market Growth Rate

HOSPITALS	2013	2014
HOSPITAL A	250.000	300.000
HOSPITAL B	325.000	350.000
HOSPITAL C	175.000	200.000
HOSPITAL D	150.000	175.000
HOSPITAL E	100.000	125.000
TOTAL	1.000.000	1.150.000

If the market growth rate is negative, it indicates that the market has shrunk. A market growth rate of zero means that the market size has not changed. A market growth rate greater than zero naturally indicates that the market has grown. According to Boston Consulting Group researchers, if the growth rate is greater than 10%, the market is growing rapidly. If the market

growth rate is less than 10%, the market is growing slowly.

Market share refers to the portion of the services offered by each institution in the market. A high market share for a health institution indicates that it is the institution that provides a significant part of the total services to the region. For instance, we can calculate the market share of Hospital A for 2013 as follows:

$$\text{Market Share}_{\text{Hospital A}} = \frac{Q_{\text{Hospital A}}}{\sum Q} = \frac{300.000}{1.000.000} = \% 30$$

While market share provides important information about the strength or weight of a health institution in the market, it is not sufficient to determine its position compared to its competitors. To have a better perspective on the position of the institution in comparison with its competitors, managers need to calculate its relative market share. Specifically, relative market share can be used as an indicator of the position of a health institution compared to its strongest competitor.

In this sense, the relative market share can be defined as the ratio of the amount of services provided by the institution ($Q_{\text{Institution}}$) to the amount of services provided by its strongest competitor ($Q_{\text{Strongest Competitor}}$). The strongest competitor is the institution that provides the most services in the market and has the highest market share. Relative market share is calculated as follows:

$$\text{Relative Market Share} = \frac{Q_{\text{Institution}}}{Q_{\text{Strongest Competitor}}} = \frac{1.150.000 - 1.000.000}{1.000.000} = \% 15$$

For example, we can calculate the relative market share of Hospital A in 2014 as follows. Hospital A's strongest competitor in 2014 is Hospital B. In this case, A hospital's relative market share will be 0.85.

$$\text{Relative Market Share}_{\text{Hospital A}} = \frac{Q_{\text{Hospital A}}}{Q_{\text{Hospital B}}} = \frac{300.000}{350.000} = 0,85$$

The strongest competitor of Hospital B in 2014 is Hospital A. Hence, the relative share of Hospital B in 2014 can be calculated as follows:

$$\text{Relative Market Share}_{\text{Hospital B}} = \frac{Q_{\text{Hospital B}}}{Q_{\text{Hospital A}}} = \frac{350.000}{300.000} = 1,67$$

Since the strongest competitor for Hospitals C, D, and E in 2014 is Hospital A, their relative market shares are 0,57, 0,50, and 0,357, respectively.

Based on the relative market share of an institution, we can infer three cases:

- If the relative market share is greater than 1, then it means that its market share is higher than its strongest competitor, which means that the institution is the market leader.
- If the relative market share is equal to 1, then it means that its market share is equal to that of its strongest competitor, that is, it is in the same position as its strongest competitor in the market.
- If the relative market share is smaller than 1, then it means that the institution's market share is less than its strongest competitor, that is, the institution is not in a strong position in the market.

CONCLUSION

The attractiveness of the market/service area analysis is an important tool for health institutions in designing implementable and evidence-based strategies

to enter a new market. When developing market entry strategies, it is crucial for health institutions to correctly identify environmental factors pertaining to market attractiveness. Market entry scores calculated through the market attractiveness analysis are used to determine the potential markets. Market attractiveness scores are also employed in identifying environmental factors.

The market attractiveness analysis is also used to determine how the attractiveness of the market/served area changes over time. It should also be noted that market attractiveness analysis provides clues to health institutions about the competitive conditions they will face in the future. An increase in the market attractiveness score signals the rising likelihood of new health institutions entering the service area. Hence, in essence, a rise in market attractiveness score indicates intensifying competition in the market.

Finally, another important concept providing the health institutions with crucial information about the market structure is market concentration. A rising market concentration indicates an increase in barriers to entering the market.

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