Opportunities for future research are to develop theoretical approaches to assessment of the effectiveness of social capital to further manage this component of corporate capital.

Threats to research results are the lack of integration method of partial indicators into one unit.

8. Conclusions

As a result of conducted research:
1. It is proved that social capital has the general characteristics of capital, and therefore it is a capital. It is analyzed how the implementation of social capital is converted into other forms of capital.
2. Social capital of the corporation consists of consumer and institutional capital, as they in their interactions form the competitive advantages of the corporations and participate in the creation of added value.

References


MARKETING-BASED HUMAN RESOURCE MANAGEMENT STRATEGY DEVELOPMENT

Запропоновано методичний підхід до розробки стратегії управління персоналом на засадах маркетингу та проведено оцінювання хімічних підприємств за пропонованою методикою. Здійснено розроблення інструментів виконано загальну оцінку стану управління персоналом на підприємствах хімічної галузі України та сформовано рекомендації до управління персоналом на зазначених підприємствах.

Ключові слова: стратегія управління людськими ресурсами, маркетинг, маркетингове середовище, конкурентна позиція, персонал.

1. Introduction

In the age of globalization and digitalization personnel and information become core competencies of enterprises in different spheres. Management needs to use new approaches for attracting, developing and retaining competitive personnel, allowing constantly and effectively to develop businesses. Competition on the labor market among...
employers for skilled professionals is increasing both on the local and global levels. Under the present economic conditions Ukrainian employees do not limit themselves with search of jobs only inside the country, they also extend their search, considering opportunity of migration. First of all, it refers to industrial and chemical spheres. Innovation in personnel management is an urgent requirement for the management of all companies, since modern management is the key to success. The marketing concept proved its effectiveness in the strategic management of the company. Therefore, it is important to search new methods of personnel management that would help to retain existing professionals and attract new specialists. The object of the current research is human resource management based on marketing approaches at the Ukrainian enterprises of chemical industry. Using marketing principles in the management of Ukrainian staff in chemical enterprises is somewhat difficult because of the lack of such experience.

2. The object of research and its technological audit

In order to define the major problems of human resource management, which Ukrainian chemical companies face in their activity, author designed and conducted the research of Ukrainian enterprises representing chemical industry. During research 4 Ukrainian chemical companies were analyzed in detail.

To obtain the most vivid results of the analysis author developed a methodical approach for developing HR strategies based on marketing audit. The approach stipulates a set of actions which take into account specific features of each particular industry and enterprise.

3. The aim and objectives of the research

The aim of the current research is to define the current state of human resource management at the Ukrainian enterprise of the chemical industry and develop the recommendations regarding improvement HR management effectiveness at the mentioned above enterprises.

To achieve the aim the following scientific tasks were formed:
1. To develop a methodology of human resource strategy formation based on marketing tools application.
2. To conduct a complex analysis of human resource management process at Ukrainian chemical enterprises.
3. To suggest recommendations regarding formation of the effective human resource strategy at the Ukrainian chemical enterprises.

4. Literature review

The development of human resource management strategies engaged in a lot of domestic and foreign scholars. However, the problem of human resource management strategies development based on marketing is not fully explored. Issues of human resource management were covered in a number of works [1–9]. Some scientists [1, 3] consider particular aspects of determining needs in employees based on marketing. Partially internal marketing issues are investigated in the publication on marketing [4] and marketing of personnel [2, 7] noting that the process of human resource management strategy development takes into account the interests of employers and employees [2, 8]. All of the actions take into consideration the interests of employers and employees, but not of the scientists did not consider HR strategy in the light of the marketing approach. Marketing of employees provides tools reconciling the interests of employees and companies’ owners-employers [9, 10]. That is why deep research of the specifics of marketing application at human resource management of Ukrainian enterprises is considered to be in time and of high importance.

5. Materials and methods of research

To conduct this research author intends to apply the following techniques: observations, library and internet researches in order to obtain theoretical materials for further development of methodology to develop a HR strategy of Ukrainian chemical enterprises; field research (interviews and questionnaires) to define the major challenges in HR management; approximation at the Ukrainian enterprises to test the tools developed to understand their affordability and efficiency for Ukrainian enterprises; graphical methods to demonstrate visually the models of results received; mathematic and statistical methods to process the results of interviews and questionnaires.

6. Research results

The chemical industry is one of the leading industries in Ukraine. Chemical sector of Ukraine today operates in quite difficult conditions caused by structural, institutional, market, technological changes and serious risks, which recently added. During the last years, the industry was influenced by favorable prices on the main export markets and the growth of demand in the domestic commodity market. It’s formed a promising growth dynamics of production volumes, production investment, and improved financial and socio-economic performance of this sector. In 2012–2013, the average annual rates of commodity production in this industry reached a level of 13–14 %. There are some systemic and structural changes caused by factors of extensive and quality growth. In 2015, commodity production in the chemical industry of Ukraine was characterized by contradictory trends, inertial development, strengthen influence of external conditions. The share of industry in GDP in 2015 was 7.1 %, in the total industrial production — 6.7 %, in exports of goods from Ukraine — 9.2 %, in imports of goods in Ukraine — 11 %. In 2015, active growth of industry commodity production began to decline gradually, but the inertia of growth has remained high for the year and the growth rate of output industrial production was 9.8 %. Over the past five years, domestic consumption of chemical and petrochemical products in Ukraine in value terms almost tripled.


Activity in the market of consumer chemical products led to the creation in Ukraine a small of small association.
of small companies (along with big enterprises, which were created with the participation of foreign capital) in spite of economic downturn. The most active this process was in such segments as paints, plastics and rubber processing, detergents and cleaning products, etc. Only in the segment of plastics processing at least 3500 companies operate in Ukraine today.

It should be noted that for the first time in many years, the domestic commodity market has developed in quite ambiguous and contradictory situation. The capacity of the domestic market increased against the background of significant stagnation of chemical enterprises.

In recent years a steady trend is observed towards worsening financial situation in the industry. In particular, the dynamics of production in the chemical and petrochemical industry slowed slightly — from 9.8 % in 2005 to 2.2 % in 2010 and 6.2 in 2015 respectively.

Companies studied by author have different economic and financial condition. OJSC «Azot», Cherkassy is one of the leading chemical enterprises in Ukraine, compare with Cherkassy State Plant of Chemical Reagents (CSPCR) and Konstantinovka State Chemical Plant (KSCP), which are going through their hard times, both enterprises are working with loading capacity of 5 and 40 %, respectively. «Cherkassy State Plant of Chemical Reagents» enterprise for 15 years has been unprofitable. «Ukrainian Agricultural and Chemical Company» (UACC) is a private company, which is developing rapidly. This choice of studied objects is caused by the fact that they represent the main group of the industry that will create complete that they represent the main group of the industry that will create complete picture of using human resource market in the chemical sector.

The main objective of all these companies is to create, develop and support coordinated, motivated and professional team to achieve a common goal. The human resources are a key factor in any management system. In order to analyze the human resources as an object of management and marketing, to determine specific ways of HR strategy implementation in the chemical industry in Ukraine, a system of performance indicators will be analyzed according to the HR strategy development methodology suggested by author, described below.

Author developed a marketing-based methodology of HR strategy development, according to which HR strategy development process should consist of two basic units of consistent steps — analytical and development. Fig. 1 summarizes the steps of the purposed methodology.

The first analytical unit of actions involves the study of the impact of macro- and micro-marketing environment factors of the labor market that affect company’s human resource management activity, analysis of internal state of the company and determination of the level of coherence between company’s current human resource management strategy and its company goals and strategy (Fig. 1).

Each stage of the analytic unit will be considered below.

According to Kotler «firm’s marketing environment is a set of active subjects and forces acting outside the company that affect management’s ability of marketing department to build and maintain successful relationships with target customers» [11]. This definition is comprehensive. According to the theory of marketing the company is exploring external factors of marketing environment and on this basis develops a market-product strategy and implements it to better meet its own and consumers’ interests. Company works in two-level marketing environment that includes macro- and micro-factors [11]. Analysis of macro-marketing environment involves consideration of significant factors of the labor market, particular in the political, economic, socio-cultural, technological, legal and other contexts. Analysis of the micro-marketing environment factors begins with a study of consumers, then competitors, suppliers and other contact audiences [11]. Consumers in the labor market are the employees, competitors — other employers; intermediaries and contact audiences are recruitment agencies, Public Employment Service, educational institutions, etc. Analysis of the labor market will demonstrates the challenges and opportunities in working process with suppliers and contact audiences.
of general strategies and company’s goals. In particular, it is needed to assess whether such criteria as remuneration, corporate culture, internal communications, plan of the development and training, the system of recruitment and human resource performance management comply with the general long-term and medium-term goals, values and strategy.

- Communication between human resource management and company’s activity.

According to the results of researches made in the previous block, the current state of human resources (HR) management in the company may be determined by summarizing a number of groups of indicators, such as competitive position, the state of the internal environment, the level of harmonization of the current HR management strategy with common goals and strategy of the company, the company’s ability to respond to the impact macro-marketing environment. To determine the current status of HR management at the company, we propose to estimate the importance of each group of indicators that impacts the formation of the current state. For this purpose, the expert group assigned coefficients of significance to each group of indicators. As a result, following important factors were obtained:

1. Index of company’s competitive position importance:  
   \[ K_1 = 0.35. \]

2. Index of internal environment importance:  
   \[ K_2 = 0.3. \]

3. Index of HR management coordination importance with common goals and company strategy:  
   \[ K_3 = 0.2. \]

4. Index of company’s ability importance to respond to the impact of macro-marketing environment:  
   \[ K_4 = 0.15. \]

Then, after a brainstorming, expert group determined indexes of the importance of each of the analyzed parameters of the internal environment of the company, as well as indicators that show coherence between the current state of HR management with company’s strategy. The experts calculated the relevant impacts using 10-point scale. Thereafter, 10 points — the maximum score; 1 point — the minimal one. In this way, two of three groups which are influencing the current state of HR management in the company, are processed.

Due to the evaluation of the competitive position experts determined, that companies can assign the following points on 10-point scale based on their competitive position, according to McDonald classification [5]:
- the dominant role or leader — 10 points;
- strong — 8 points;
- favorable — 6 points;
- balancing or company that want to be sustainable — 4 points;
- weak — 2 points.

Company’s ability to respond to the impact of marketing environment offered to determine by expert evaluation of ability of enterprises to use market opportunities or respond to market threats for each group of macro and micro-marketing environment factors. As a result of analysis of the macro marketing environment experts on a 10-point scale evaluate the company’s ability to resist market challenges and use market opportunities compared to other companies of the industry. Then, for an overall assessment experts determined indexes of macro-marketing environment impact importance as equal, their value was 0.5.

General assessment of enterprises’ ability to respond to the impact of the marketing environment has been calculated by the formula (1), which is given below:

\[
O_t = K_{\text{Macro}} \sum_{i=1}^{n} h_i O_i + K_{\text{Micro}} \sum_{j=1}^{m} k_j O'_j, \tag{1}
\]

where  \( O_t \) — expert assessment of enterprises’ ability to respond to the impact of the marketing environment;  
\( K_{\text{Macro}} \),  \( K_{\text{Micro}} \) — importance coefficients of micro- and macro-marketing environment impact;  
\( r \) — number of macro-marketing environment factors;  
\( k_i \) — importance coefficient of \( i \)-group of macro-marketing environment factors;  
\( O'_j \) — expert assessment of enterprise’s ability to respond to the impact of the \( j \)-group of micromarketing environment factors.

After evaluating each group of indicators, the general assessment of personnel management in the company is defined by the formula (2):

\[
O_{HRM} = K_1 O_1 + K_2 \sum_{i=1}^{n} k_i O_i + K_3 \sum_{j=1}^{m} k'_j O'_j + K_4 O_t, \tag{2}
\]

where  \( O_{HRM} \) — assessment of the current state of human resources management;  
\( K_1 \) — importance coefficient of the competitive position that enterprise occupies;  
\( O_1 \) — expert assessment of the competitive position occupied by enterprise;  
\( K_2 \) — importance coefficient of the internal environment;  
\( m \) — number of indicators of enterprise’s internal environment;  
\( k_i \) — importance level of \( i \)-indicator of enterprise’s internal environment in the aggregate of \( m \) indicators of enterprise’s internal environment;  
\( O_i \) — expert assessment of \( i \)-indicator of enterprise’s internal environment importance;  
\( K_3 \) — importance coefficient of human resources policy coordination level with common objectives and business strategy;  
\( q \) — number of indicators of human resources policy coordination level with common objectives and business strategy;  
\( k'_j \) — importance level of \( j \)-indicator of human resources policy coordination level with common objectives and business strategy;  
\( O'_j \) — expert assessment of \( j \)-indicator of human resources policy coordination level with common objectives and business strategy importance;  
\( K_4 \) — importance coefficient of enterprise’s ability to respond macro-marketing environment impact;  
\( O_t \) — expert assessment of enterprise’s ability to respond marketing environment impact.

The experts determined that if the evaluation of the current state of human resources management in the company ranges from 7 to 10 points, the state of the company is excellent; while point score assessment is in a range from 6.99 to 4 points, state of the company is defined as satisfactory; when point score assessment is less than 4 points the state is unsatisfactory.

Evaluation of the current human resource management of the selected Ukrainian chemical companies was conducted based on the suggested methodology, which enabled to conclude that the assessed companies have different levels of human resource management state. The final results of expert assessment are demonstrated in Table 1 below.
Table 1

Summarized expert assessment of current state of human resource management at Ukrainian chemical industry enterprises

<table>
<thead>
<tr>
<th>Group of indicators</th>
<th>Index of importance</th>
<th>KSCP*</th>
<th>CSPCR**</th>
<th>OJSC «Azot»</th>
<th>UIACC***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal state of an enterprise</td>
<td>0,3</td>
<td>3,43</td>
<td>3,23</td>
<td>6,98</td>
<td>6,88</td>
</tr>
<tr>
<td>Coherence between company’s current human resource management strategy and its strategy</td>
<td>0,2</td>
<td>2,5</td>
<td>2,5</td>
<td>6,5</td>
<td>8</td>
</tr>
<tr>
<td>Competitive position</td>
<td>0,35</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Ability to react at marketing environment</td>
<td>0,15</td>
<td>3,75</td>
<td>3,46</td>
<td>7,55</td>
<td>6,2</td>
</tr>
<tr>
<td>Expert rate of current state of human resource management</td>
<td>1</td>
<td>3,49</td>
<td>2,69</td>
<td>8,03</td>
<td>6,69</td>
</tr>
</tbody>
</table>

Notes: * KSCP — Konstantinovka State Chemical Plant; ** CSPCR — Cherkassy State Plant of Chemical Reagents; *** UIACC — Ukrainian agricultural and chemical company

Table 1 enables to conclude that expert rate of the current human resource management state of Konstantinovka State Chemical Plant is 3,49 points, Cherkassy State Plant of Chemical Reagents — 2,69 points, which enables to define the current state of mentioned enterprises as unsatisfactory. OJSC «Azot» mark of 8,03 determines current state of enterprise as excellent. Mark of Ukrainian agrarian and chemical company is 6,69 which enables to define the current HR management state as satisfactory.

According to the results of the evaluation of the current state of personnel management in the company, the development of human resource management strategy maybe offered. The essence of strategy consists of the following [1, 3]:

— Setting goals of personnel management. Objectives are determined from the analysis and evaluation of the current state of human resource management in the company, when making decisions in personnel management must be taken into account the interests of workers and employers. We offer to determine setting goals by the method of SMART, proposed by Peter Drucker [7, 11]. According to this method, it’s prescribed to allocate such goals groups as financial; goals relating to the market share which enterprise is seeking; objectives relating to optimizing internal business processes; goals related to the development and training of personnel. The optimum number of the main objectives of management is considered to be in the range from 3–5 goals.

— Formation of ideology and principles of HR, so HR ideology should be reflected in a document. This document will be a set of ethical standards in HR enterprise. During the working process the document can be supplemented and expanded.

— Providing a balance between economic and social performance of the workforce at the plant personnel. Also financial opportunities should be taken into account while forming the system of motivation. The majority of stuff recognizes that they need to get more training opportunities. Usually training requires significant expenses. In this connection it is quite important to consider internal and external training opportunities as described in Table 2 below. Some of the tools described in the Table 2 below maybe easily implemented at the enterprises with poor financial performance, while others required outsourcing.

Then human resource management strategy is formed at three major directions:

1. In relation to the attraction and recruitment of new staff. In this direction the company is recruiting and selecting staff and performs its adaptation to the new workplace.

2. In relation to existing staff, the company can make a plan of staff release. The purpose of staff release planning is to establish a timely or proactive reduction of employees. This measure is becoming increasingly important in times of economic stagnation, when the surplus labor appeared. In planning the staff release there are distinguish two types of measures: staff reductions (reactive, preventive); not reduction of staff number [6].

3. Regarding the two groups of staff — new and existing, the company is developing a system of incentives and motivation; development program by planning staff career and training; normal conditions both through the workplace and creation a healthy psychological climate in the team; and establish and maintain a positive image of staff applying for achieving this goal such promotion tools as advertising, publishing articles in the media, providing social protection by creating a system of benefits and social benefits, development of social sphere and other social incentives. Positive for image formation is sponsorship and promotion of culture in the region, as well as actions to form the loyalty of employees.

Table 2

Training directions at the enterprises of chemical industry

<table>
<thead>
<tr>
<th>Training direction</th>
<th>Internal training</th>
<th>External training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization of work process</td>
<td>Conducted by a representative of HR department and directly of a employee, where the worker begins his/her job, consists of an employee familiarity with the rules of labour discipline, working conditions, organizational and production interrelations, and more</td>
<td>Conducted outside the companies at the specialized trainings and workshops or on the premises by third-party experts, training centres, educational institutions. For example, «Project Management», «Time Management», «Strategic Planning», etc</td>
</tr>
<tr>
<td>Major training</td>
<td>Conducted by more experienced professionals in place, consists of the transfer of collective human knowledge, the experiences exchange, the information provision regarding the duties of the major</td>
<td>Conducted in educational centres, on the course of advanced training, and also there is can be a foreseen of getting higher education in accordance to his/her major</td>
</tr>
<tr>
<td>Learning of new technologies and applications</td>
<td>Conducted by the manufacturing and IT department employees, depending on the subject of study, who has fulfilled the previous external training course</td>
<td>Conducted outside of the company by visiting the training courses or seminars, or on the base of enterprise by conducting training by a specialist especially invited for employees</td>
</tr>
</tbody>
</table>

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7. SWOT-analysis of research results

Current paper has some strengths, weaknesses, opportunities and threats. Among strengths following features may be named: the methodology offered by author to develop the human resource strategy, the process of assessment based on expert rates which enabled to develop some recommendations regarding further human resource strategy development.

Also it is possible to underline some weaknesses, which are: low quantity of analyzed enterprises, but such situation is caused by the fact that chemical enterprises are not always ready to share their internal information.

Opportunities for further research are about improvement human resource management process at the chemical industry are by offering modern tools in order to attract the young generation, graduates of the universities and institutes offering them new interesting positions, orientation at production of the innovative products and using the trend of the growing internal consumption.

Threats for the results of current research are connected mainly with economic factors, such as economic downturn, migration of the qualified labor force, growing prices of raw materials, etc.

8. Conclusions

1. In order to develop a marketing-based human resource management strategy author formed a unique methodology. This approach involves a complex of management actions, which was divided into two parts or units: development and analytical. Actions of analytical unit stipulate an analysis of the macro-, micro- and internal environment of Ukrainian chemical companies using marketing tools. Recommendations for determining the consistency of current HR strategy with enterprise objectives and strategy of the company are also developed. Based on tools developed an overall assessment of personnel management in the company was carried out using the developed tools. The results of assessment enable to develop a strategy for human resource management using a framework of actions suggested in analytical unit of actions. During 4 companies were analyzed in detail.

2. An analysis of chemical industry role in Ukrainian economy was conducted, which enabled to understand a significance of this industry as employer. Based on this analysis, 4 enterprises for further analysis were selected: OJSC «Azot», Konstantinovka State Chemical Plant, Cherkassy State Plant of Chemical Reagents and Ukrainian Agricultural and Chemical Company. The results of assessment conducted by the experts enabled to conclude that current state of human resource management at researched companies varies. OJSC «Azot»’s human resource management was assessed as excellent, Ukrainian Chemical and Agrarian Company’s was evaluated as satisfactory, Konstantinovka State Chemical Plant, Cherkassy State Plant of Chemical Reagents have unsatisfactory state of human resource management which causes serious threat for further activity of the enterprises.

3. In spite of different level of human resource management in analyzed companies, conducted research demonstrated that there is a common significant problem of attracting young specialists and keeping them in the chemical industry. Also attention should be paid to the relations between employees to employers. It will help to create such working conditions that would stimulate employee to improve the results of their work, feeling their involvement, role in the company’s performance and so on. Current research attracted a considerable interest among employers and testing the research recommendations for three months in practice showed positive results, namely decrease of staff turnover rate and attracting young professionals. In addition, the re-review of staff loyalty of the researched companies demonstrated their growth.

References


Заключение

Разработка стратегии управления человеческими ресурсами на основе маркетинга

Предложен методический подход к разработке стратегии управления персоналом на основе маркетинга и выполнена оценка химических предприятий по предлагаемой методике. Согласно разработанных инструментов выполнена общая оценка химических предприятий по предлагаемой методике.

Ключевые слова: стратегия управления человеческими ресурсами, маркетинг, макро-, микро- и внутреннюю среду предприятия.

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