MODEL OF INTELLECTUAL CAPITAL MANAGEMENT IN ORDER TO IMPROVE CORPORATE IMAGE IN MUNICIPAL UTILITY COMPANY KD AUTOTROLEJ D.O.O. RIJEKA

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ABSTRACT

The primary goal of utility companies is to serve local authorities, enterprises, institutions and citizens with the maximum social benefit. Therefore, they must behave as they are entrepreneurs themselves and increase efforts to raise the quality of services and improve their corporate image. An extremely important role in shaping and improving the corporate image has the intellectual capital of utility company. Namely, the utility company without quality and efficiency of intellectual capital cannot build a strong corporate image. Therefore any utility company that wants to improve its corporate image must incorporate the intellectual capital management in its business practices. But the problem is that hardly any utility company monitors its image reputation and inputs efforts on its improvement, and even rarer are utility companies that follow the movement of its intellectual capital and its impact on corporate image. Consequently, the task of this paper is to explore the value of corporate image and intellectual capital of the utility company KD Autotrolej d.o.o. Rijeka, their mutual relationship, the value of certain elements of intellectual capital and to form a model of managing intellectual capital in order to improve the image of the utility company. To achieve this more scientific methods were used: method of analysis and synthesis, comparative methods, descriptive statistics and correlation analysis. The study was conducted on a sample of 420 adult respondents. In the opinion of the majority of respondents (67%) KD Autotrolej has a mediocre image, average (mean) of external image was 2.89. The average score of intellectual capital is 2.71. Generally, the weakest links of the intellectual capital are: market research and market communication, criteria for employment, professional training system, organizational structure, encouraging the creation of value, information and communication systems, system of reward and progression, relationship with clients, job satisfaction, leadership, motivation, organizational culture and climate, creativity and PR. Correlation analysis showed a statistically significant and medium correlation between intellectual capital and general image of KD Autotrolej Rijeka (Pearson’s correlation coefficient r=0,758). Based on these findings and research results, the ICCI (Intellectual Capital-Based Corporate Image) model of managing intellectual capital in order to improve the image of municipal utility company KD Autotrolej Rijeka is proposed. By applying the proposed model of managing intellectual capital, KD Autotrolej would increase customer satisfaction and improve its corporate image.

Key words: Intellectual capital; Corporate image; Municipal utility companies
1. INTRODUCTION

Utility companies have an irreplaceable role in ensuring living conditions of population and efficiency increase of utility services is one of the prerequisites for increasing the efficiency of entire economy. Therefore, they have to behave as if they were entrepreneurs themselves.

Nowadays, towns, among other things, compete with the standard of providing utility services to their citizens. The image of utility companies has an extremely large importance in the formation of conscience of the citizens about the quality of life in a specific town. Therefore, towns among other things compete with the standard of providing utility services to their citizens (Pupavac, Maršanić & Babić, 2009, 772). In this regard, the utility companies must make greater efforts in corporate image improvement (Babić & Babić, 2011, 34). An extremely important role in shaping and improving the corporate image has the intellectual capital of utility company.

The image of municipal utility companies in the Republic of Croatia is not impressive. Hardly any utility company monitors its image reputation and inputs efforts on its improvement, and even rarer are utility companies that follow the movement of its intellectual capital and its impact on corporate image. In this regard, the dissatisfaction of citizens’ quality of life in cities is growing. Consequently, the task of this paper is to explore the value of corporate image and intellectual capital of utility company KD Autotrolej d.o.o. Rijeka, their mutual relationship, the value of certain elements of intellectual capital and to form a model of managing intellectual capital in order to improve the image of the utility company. The objective of this paper is to encourage utility companies in the city of Rijeka on continuous monitoring of image and intellectual capital, and shaping its own image strategy model based on intellectual capital, which would enhance and strengthen corporate image. To achieve this more scientific methods were used: method of analysis and synthesis, comparative methods and surveys.
Utility Services implies the performance of utility activity, particularly the provision of utility services in interest of natural and legal persons as well as financing the construction and maintenance of facilities and equipment of utility infrastructure as an integrated system in local government.

Utility services as an industry is significantly involved in the overall economy. It employs about 4% of total employment, realizes total revenue of about 2% of total public revenue, and the value of its assets amounts about 4% of total assets of the economy.

Utility services comprises are a part of economy, which refers to the provision of services of utility activity, which, because of its specificity, demands special legal definition and regulation of relationships within the area.

The specificity of this business is in the type of services they cover - these are services that are essential for urban living. The utilities include: water supply, drainage and wastewater treatment, gas supply, heat supply, passengers transport in public transport, cleaning, waste disposal, maintenance of public areas, maintenance of unclassified roads, retail markets, maintenance of cemeteries and crematories and conducting funeral business, chimney sweeping and street lighting (Babić & Babić, 2012). Utility activities are carried out as a public service.

Utility services may be performed by a company established by local governments, public institutions established by local governments, self-propelled service established by local government, legal and natural persons under contracts of concessions and legal or natural person under contract of delegation of utility business.

Utility companies have an irreplaceable role in ensuring living conditions of population and efficiency increase of utility services is one of the prerequisites for increasing the efficiency of entire economy.

Funding for utility services are provided from cost utilities, utility charges, budgets of local governments and state subsidies. But regardless of utility companies reliance on the support of local and state authorities in their operations, they will have to increasingly apply modern methods of management in their operations because they must comply with various institutions and groups (local authorities, enterprises, citizens). The primary goal of utility companies is to serve those institutions and groups with the maximum social benefit. Therefore they have to behave as if they were entrepreneurs themselves, which means that they should keep in mind to cut down the costs as much as possible, and to level up the quality of their services as well as their customer relationship.

Utility companies need to ensure continuity and quality of utility services with maximum respect for environmental and public interest of local communities in which they operate, along with ongoing efforts to increase the satisfaction of their employees and all users of its services. In this regard, the utility companies must make greater efforts in corporate image improvement.
3. THE CONCEPT AND IMPORTANCE OF CORPORATE IMAGE IN UTILITY COMPANIES

Utility companies need to ensure continuity and quality of utility services with maximum respect for environmental and public interest of local communities in which they operate, along with ongoing efforts to increase the satisfaction of their employees and all users of its services. In this regard, the utility companies must make greater efforts in its corporate image improvement.

Image is a set of beliefs, ideas and impressions a person has in relation to a specific object. People’s opinions and activities related to a specific object are mostly conditioned by the image of that object (Kotler, 1997). Corporate image is the reputation of the firm with the various audiences that are important to it. Corporate image is a means for the public to know the company, to see what and how it works, what it aims at, which are its products and services, its economic indices and which its reputation is (Babić, 2004, 27).

A company’s image is made of six basic elements: manager’s image, business policy, organizational structure and organizational culture, market identity, product/service image and visual identity (Babić, 2004, 28). Each of the mentioned elements contributes differently to the overall image of the company. In a competitive business climate, many businesses actively work to create and communicate a positive image to their customers, shareholders, the financial community, and the general public.

Corporate image is psychological construct that determines directly the business or market attitude towards services and company, and the construct can be either positive or negative. The positive construct is the result of the work on perfection adequate presentation and promotion. The negative construct is created by poor work and is the consequence of events caused by fear and insecurity, such as bankruptcy, fraud, irresponsible business behavior, disregarding of rights and similar.

Image is the consequence of the felt not of the real quality of the company. The wrong or bad perception that is once acquired is changed with difficulty. The perception created does not always need to reflect the real profile of the company (Gregory & Wiechmann, 1998). This means that the desired image can be perceived erroneously if not directed and managed efficiently. Therefore managers have to take the following steps toward improving their companies’ image: focus on the firm’s long-term reputation; base actions on substantive policies; insist on candor in all business dealings; and uphold the stakeholders’ right to know (Young, 1996).

The creation of corporate image is a demanding, long-term and expensive operation which includes numerous activities, but it brings along significant direct and indirect effects. Direct (communications) effects include: respectability, public favoring attitude, loyalty of members, employees and management, authority and satisfaction of employees, owners and management. Indirect effects include: selling rate growth, efficiency rate growth, profit increased. Good corporate image can take years to build and only moments to destroy. Therefore utility companies must manage their corporate image.
In the process of managing corporate image, the fundamental variables are: corporate identity, corporate communication, corporate image, and feedback. Corporate identity is the reality of the corporation—the unique, individual personality of the company that differentiates it from other companies. Corporate communication is the aggregate of sources, messages, and media by which the corporation conveys its uniqueness or brand to its various audiences. Corporate image is in the eye of the beholder—the impression of the overall corporation held by its several audiences. The objective in managing corporate image is to communicate the company’s identity to those audiences or constituencies that are important to the firm, in such a way that they develop and maintain a favorable view of the company (Pupavac, Maršanić & Babić 2011, 773).
4. THE ROLE OF INTELLECTUAL CAPITAL IN SHAPING THE IMAGE OF UTILITY COMPANIES

The term intellectual capital of company conventionally refers to the difference in value between tangible assets (physical and financial) and market value (Magrassi, 2002). Karl-Erik Sveiby, Leif Edvinsson and Tom Stewart were among the first to popularize the term.

There are many definitions of intellectual capital of company. Here are some of them.

Intellectual capital is intangible asset, “knowledge that can be converted into value or profit” (Sullivan, 1998). It is “the value embedded in the ideas embodied in people, processes, and customers/stakeholders”. Intellectual capital is “the intellectual material that has been formalized, captured, and leveraged to produce a higher-valued asset”. Intellectual capital is “the ability to transform knowledge and intangible assets into wealth-creating resources”. Intellectual capital “intangible resources that are a vital component of the value in an organization and that those resources must be recognized and mobilized for the benefit of the organization”.

So, intellectual capital is intangible value, arising from the applied knowledge in the organization, processes and management, capacity and efficiency of employees and customer service, which creates competitive advantage, thereby affecting the competitiveness of national economy. However, intellectual capital is not sufficient itself to increase the competitiveness of companies. In fact, the competitiveness of companies is created on interaction of intellectual capital, financial capital, infrastructure and superstructure of the legislative and market environment.

Intellectual capital is most valuable asset and resource of company because it affects the productivity gains and value-added products/services. This leads to the competitiveness growth, enabling the survival and development of company.

**Intellectual capital is intangible value, arising from the applied knowledge in the organization, processes and management, capacity and efficiency of employees and customer service. It is normally classified as follows (Choong, 2009; De Castro, López Sáez, Navas López, 2009; Lim & Dallimore, 2011):**

- **Human capital** - it includes values such as: skills, know how, competencies (professional and social), motivation, relationships (which is the ultimate goal of creating value) etc.

- **Structural capital** - the supportive infrastructure, processes and databases of the organisation that enable human capital to function (hardware, software, processes, patents, and trademarks, corporate image, organization, information system, process and innovation capital, and proprietary databases).

- **Relational capital** - consists of more items such as customer interactions and relationships, Public relations etc.
So, the intellectual capital of the company is located in people, systems and relationships. Managing intellectual capital enables the optimization of potentials, increases employee satisfaction, and thus the efficiency and added value, improves quality of supply and consumer satisfaction, and improves corporate image. The relationship between intellectual capital and corporate image can be seen in Scheme 1.

Scheme 1: Relations between intellectual capital and corporate image

Intellectual capital affects what company is doing, it shapes its identity and mode of communication and thus forms a corporate image, and corporate image affects the identity formation and communication. It also influences on what the company will do in the future and affects the value of company’s intellectual capital. Thus, the company without quality and efficiency of intellectual capital cannot build a strong corporate image, and without a strong image there is no increase of company’s intellectual capital value. The relationship between intellectual capital and corporate image is proven by the correlation analysis on the example of service industry - Pearson’s correlation coefficient $r=0.764$ (Babić, 2009, 224).

In this regard, any utility company that wants to improve its image must incorporate the intellectual capital management in its business practices.
5. PROPOSAL OF INTELLECTUAL CAPITAL MODEL IN ORDER TO IMPROVE THE CORPORATE IMAGE OF UTILITY COMPANY KD AUTOTROLEJ RIJEKA

In order to form a model of managing intellectual capital to improve the image of KD Autotrolej, the value research of its current image and intellectual capital as well as their interrelationship was carried out on a sample of 420 adult respondents (face-to-face surveys).

KD Autotrolej Rijeka is a company for organized transport of passengers in urban and suburban area that was founded in 1899. City of Rijeka is the majority owner of KD Autotrolej with a share of 83%.

How the respondents evaluated corporate image of KD Autotrolej can be seen on Chart 1.

Chart 1:

![Chart 1](image_url)

In the opinion of the majority of respondents (67%) KD Autotrolej has a mediocre image, average (mean) of external image was 2.89. Only 2% of respondents rated the image of KD Autotrolej excellent, and it is considered very favourable 8% of respondents. However, even 13% of respondents considered the image that company to be unfavorable, and 10% very unfavorable.

The shape of intellectual capital in KD Autotrolej can be seen on Chart 2.

**Chart 2: Intellectual Capital Rating of KD Autotrolej**

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>employment criteria</td>
<td>2.13</td>
<td>1.93%</td>
</tr>
<tr>
<td>creativity</td>
<td>2.81</td>
<td></td>
</tr>
<tr>
<td>professional competence</td>
<td>3.01</td>
<td></td>
</tr>
<tr>
<td>motivation</td>
<td>2.72</td>
<td></td>
</tr>
<tr>
<td>job satisfaction</td>
<td>2.61</td>
<td></td>
</tr>
<tr>
<td>employees ethics</td>
<td>3.69</td>
<td></td>
</tr>
<tr>
<td>relationships with peers and employees ethics</td>
<td>3.42</td>
<td></td>
</tr>
<tr>
<td>organizational structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>organizational culture and climate</td>
<td>2.72</td>
<td></td>
</tr>
<tr>
<td>leadership</td>
<td>2.68</td>
<td></td>
</tr>
<tr>
<td>encouraging the creation of value</td>
<td>2.21</td>
<td></td>
</tr>
<tr>
<td>system of reward and progression</td>
<td>2.51</td>
<td></td>
</tr>
<tr>
<td>information and communication of success</td>
<td>2.27</td>
<td></td>
</tr>
<tr>
<td>professional training system</td>
<td>1.96</td>
<td></td>
</tr>
<tr>
<td>market research and marketing</td>
<td>1.72</td>
<td>3.28</td>
</tr>
<tr>
<td>services user loyalty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relationships with clients</td>
<td>2.53</td>
<td></td>
</tr>
<tr>
<td>compliance with customer</td>
<td>3.15</td>
<td></td>
</tr>
<tr>
<td>relationships with suppliers</td>
<td>3.16</td>
<td></td>
</tr>
<tr>
<td>PR</td>
<td>2.97</td>
<td></td>
</tr>
<tr>
<td>media relations</td>
<td>3.25</td>
<td></td>
</tr>
</tbody>
</table>

Source: Research results
The average score of intellectual capital is 2.71. Human capital is best evaluated (average score 2.88), slightly less relational capital (average score 2.86), and structural capital was rated the weakest (average score 2.35). Generally, the weakest links of the intellectual capital are: market research and market communication, criteria for employment, professional training system, organizational structure, encouraging the creation of value, information and communication systems, system of reward and progression, relationship with clients, job satisfaction, leadership, motivation, organizational culture and climate, creativity and PR.

Correlation analysis showed a statistically significant and medium correlation between intellectual capital and general image of KD Autotrolej Rijeka (Pearson’s correlation coefficient $r=0.758$).

Based on these findings and research results, the ICCI (Intellectual Capital-Based Corporate Image) model of managing intellectual capital in order to improve the image of municipal utility company KD Autotrolej Rijeka is proposed, that can be seen on Scheme 2.

**Scheme 2: Model of corporate image improvement based on intellectual capital (ICCI)**

Therefore, to improve the image of KD Autotrolej Rijeka it is necessary to implement the model of managing intellectual capital that is focused on employees, organization and relations. In terms of managing the human capital it is necessary to: 1) employment by the criteria of professional, personal and social competence, 2) motivate employees to work, learning, innovation and team work, and 3) continued examination of employee satisfaction at work and increase work satisfaction and company loyalty.
Management of structural capital requires: 1) implementation of soft management, 2) forming flexible organizational structure, 3) forming friendly organizational culture and climate, 4) system of transparent information and communication in all directions, 5) forming a quality motivation system, and 6) forming a quality system of continuous target education and training of employees.

Critical points of relational capital KD Autotrolej are relationships with customers, market research and market communications, as well as public relations. In this connection it is necessary to: 1) implement the system of customer relationship management, 2) continuously research the market, 3) improve marketing communication, 4) build and nurture quality relationships with the public, and 5) strengthen the trust of all segments of the public.

By applying the proposed model of managing intellectual capital, KD Autotrolej would increase customer satisfaction and improve its corporate image.

6. CONCLUSION

Utility companies have an irreplaceable role in ensuring living conditions of population and efficiency increase of utility services is one of the prerequisites for increasing the efficiency of entire economy. Therefore, they have to behave as if they were entrepreneurs themselves.

Nowadays the image of utility companies has an extremely large importance in the formation of conscience of the citizens about the quality of life in a specific town. Therefore the utility companies must make greater efforts in corporate image improvement.

Utility Services as an industry is significantly involved in the overall economy. It employs about 4% of total employment, realizes total revenue of about 2% of total public revenue, and the value of its assets amounts about 4% of total assets of the economy.

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Utility companies need to ensure continuity and quality of utility services with maximum respect for environmental and public interest of local communities in which they operate, along with ongoing efforts to increase satisfaction of their employees and all users of its services. In this regard, utility companies must make greater efforts in corporate image improvement.
Corporate image is the reputation of the firm with the various audiences that are important to it. Corporate image creates satisfied employees and satisfied customers. Therefore utility companies must manage their corporate image. In the process of managing corporate image, the fundamental variables are: corporate identity, corporate communication, corporate image, and feedback.

Intellectual capital is intangible value of company. The fundamental elements of intellectual capital are: human capital, structural capital and relational capital. Intellectual capital affects what company is doing, it shapes its identity and mode of communication and thus forms a corporate image. In this regard, any utility company that wants to improve its image must incorporate the intellectual capital management in its business practices.

In order to form a model of managing intellectual capital to improve the image of KD Autotrolej, the value research of its current image and intellectual capital as well as their interrelationship was carried out on a sample of 420 respondents.

In the opinion of the majority of respondents (67%) KD Autotrolej has a mediocre image, average (mean) of external image was 2.89. However, even 13% of respondents considered the image of the company to be unfavorable, and 10% very unfavorable. The average score of intellectual capital is 2.71. Human capital is best evaluated (average score 2.88), slightly less relational capital (average score 2.86), and structural capital was rated the weakest (average score 2.35). Generally, weak links of the intellectual capital are: market research and market communication, criteria for employment, professional training system, organizational structure, encouraging the creation of value, information and communication systems, system of reward and progression, relationship with clients, job satisfaction, leadership, motivation, organizational culture and climate, creativity and PR.

Correlation analysis showed a statistically significant and medium correlation between intellectual capital and general image of KD Autotrolej Rijeka (r=0.758).

Based on the research results, the ICCI (Intellectual Capital-Based Corporate Image) model of managing intellectual capital in order to improve the image of KD Autotrolej Rijeka is proposed. By applying the proposed model of managing intellectual capital, KD Autotrolej would increase worker and customer satisfaction and improve its corporate image.
MODEL UPRAVLJANJA INTELEKTUALnim KAPITALOM U FUNKCIJI UNAPREĐENJA IMIDŽA GRADSKOG KOMUNALNOG DRUŠTVa
KD AUTOTROLEJ D.O.O. RIJEKA

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SAŽETAK
Primarni cilj komunalnih društava jest da služe lokalnim vlastima, poduzećima, institucijama i građanima uz maksimum društvene koristi. Stoga se ona moraju vladati kao da su i sami poduzetnici te uvećati napore za podizanje razine kvalitete usluga i unapređenje korporativnog imidža. Iznimno važnu ulogu u oblikovanju i unapređenju imidža komunalnih društava ima intelektualni kapital. Naime, ni jedno komunalno poduzeće ne može izgraditi jak korporativni imidž bez kvalitetnog i efikasnog intelektualnog kapitala. Stoga, svako komunalno poduzeće koje želi unaprijediti svoj korporativni imidž mora upravljati svojim intelektualnim kapitalom. Problem je što rijetko koje komunalno društvo prati reputaciju svog imidža i ulaže napore u njegovo poboljšanje, a još rjeđa su komunalna društva koja prate kretanje svog intelektualnog kapitala i njegov utjecaj na korporativni imidž. S tim u vezi, temeljna svrha ovog rada jest istražiti vrijednost korporativnog imidža i intelektualnog kapitala. Komunalni društva Autotrolej d.o.o. Rijeka, njihov međusobni odnos, vrijednost pojedinih elemenata intelektualnog kapitala te oblikovati model upravljanja intelektualnim kapitalom kako bi se unaprijedio imidž tog komunalnog društva. Da bi se to postiglo korišteno je više znanstvenih metoda, uključujući: metodu analize i sinteze, metodu komparacije, deskriptivnu statistiku i korelacijsku analizu. Istraživanje je provedeno na uzorku od 420 odraslih ispitanika. Prema mišljenju većine ispitanika (67%) KD Autotrolej ima osrednji imidž, prosječna ocjena eksternog imidža je 2,89. Prosječna ocjena intelektualnog kapitala je 2,71. Općenito, najslabije karike intelektualnog kapitala su: istraživanje tržišta i tržišne komunikacije, kriteriji za zapošljavanje, sustav profesionalne edukacije, organizacijska struktura, poticanje stvaranje vrijednosti, informacijski i komunikacijski sustav, sustav nagrađivanja i napredovanja, odnos sa klijentima, zadovoljstvo poslom, vodstvo i motivacija.

Kljucne riječi: intelektualni kapital; korporativni imidž; gradska komunalna društva


