An investigation of the relationship between intellectual capital and operation of the marketing mix action in social security organization (SSO) (case study: Chahar Mahal Bakhtiarı)

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Abstract: Nowadays, insurance industry is one of the main economic institutions, in one hand, and is considered as the strongest supportive institutions of other enterprise and families' social security insurance, on the other hand. In order to develop Islamic mercy in society and maintaining high values and human greatness for rehabilitation services, supportive and welfare, relay, rehabilitation and helping to provide minimum needs of community grabs is done and covered orphans and needy individuals and families, physical and mental disabilities, damaged by natural and abnormal disasters, in consistent and social deviant. This study was conducted in order to study the role of intellectual capital in applying the marketing mix action in SSO. The statistical population of this study is all Chahar Mahal Bakhtiarı SSO employees among which a number of 192 people are selected as statistical sample. The instrument used in the study was a questionnaire. The result showed that applying the marketing mix action was effective on intellectual capital in SSO. Furthermore, intellectual capital was effective on the components of time such as apace, promotion and education, man power, quality and utility, price physical witness and services in SSO.

Key words: Intellectual Capital; Operation of the Marketing Mix; Social Security (SS)

1. Introduction

Nowadays, intellectual and knowledgeable employees are considered to be one of the important capitals of an organization. They can lead the organization to the sustainable competitive advantage through their creativity and innovation, creating new organizational processes, introducing new technology and developing new products and services. Acquiring knowledge is known as one the determining factors in competitive advantage in small and big industrial and service-proving businesses.

The role of intellectual capital (hence fore, IC) in managerial, technical, social and economic developments has gained momentum in recent studies, in a way that it can be considered as one the invaluable tools of an organization in developing its great assets. Measuring the IC in comparing the various companies, determining its real value and even improving its controls, are based on strategic approach of intangible assets. In todays' economic world, knowledge is regarded as a significant capital which is replaced from physical and financial capitals (Ghilich Lee and Moshabaki, 2008). From one hand, establishing communication with the customer, not only for selling the services and products, but also for accessing their data and knowledge is a novel concept which is discussed in the form of knowledge management system. The competitive atmosphere of the companies is changing dramatically, in a way that the organizations’ changing speed is more than the speed of their responsibility and adjustment (Davenport and Prvsak, 2000).

The desirable goal in marketing is customers’ satisfaction which should be the fundamental element of an organization to help it achieve this goal. Customers’ satisfaction turns to the crucial and core component of an organization’s life, and similar to the organizational culture, information technology and strategic programming, is the integral part of an organization. The main focus in new marketing, instead of searching for customers, is towards bringing customers’ satisfaction in order to attract them to the new product or service.

By mixture, mixed or combined, we mean that there should be a systematic and harmonic point of view among the components in order to be effective in influencing and convincing the customers. In other words, from the customers’ vantage point, the good product with a reasonable price coordinates with an appropriate distribution system and applying effective communication tools. If one of the elements acts disharmonious with other elements, it will results in the organization’s reduction of effectiveness and efficiency which prevent it to achieve its goals. By tactics, we mean the instrument or tool by which the organizations defeat with their rivals and reach their goals. Different elements, including time and place dimensions, improvement and training the manpower, productivity and quality, procedure, cost, physical evidences and the product,
have been considered for the marketing mixed factors.

The current study aimed to investigate the role of IC on marketing mixed factors in Social Security Organization in Chaharmal Bakhtiari. The study, more specifically, tried to see whether the IC could influence on marketing mixed factors. What follows is a brief introduction of the study's main keys word.

2. Background and theoretical

2.1. Intellectual capital

IC is the provider of new source base. Benitec (year) believes that IC is an effort for effective use of knowledge (fined product) against data (raw material). It is a tool for combining assets for market, intellectual property, human property and infrastructural assets, and enabling an organization to use them for its activities. From Russ et al (year) point of view, IC includes all processes and assets that are not shown in balance sheet and also includes intangible assets, including commercial brand, patents and exploitation and commercial names, that are considered in modern accounting. Stewart (year) believes that IC (IC) includes the components such as knowledge, information, intellectual properly and experience which can be used in creating wealth. IC is collective mental ability or knowledge in a collection.

2.2. Intellectual capital dimensions

IC had three dimension including human capital, structural capital and investor relation, which are briefly introduced in the following paragraphs.

• Human capital

Russ and et al argue that employee create IC by competence, altitude and mental agility. In addition, Broking believe that human capital of an organization includes skills, specialty, problem-solving ability which can be the leadership of styles. Stewart asserts that, although employees are considered to be the significant assets in a learning organization, they are not possessed by the organization, since the question is whether the knowledge created and introduced belongs to the employees or the organization. For example, the software writer of a company developed a program in his home at the weekend. The question is if company can claim this program belongs to it or not. Human capital causes an organization to rely on its employees’ knowledge and skills including income, growth, improving efficiency and productivity.

• Instructural capital

Instructural capital includes all non-human resources knowledge in an organization and data base, organization graphs, process executive instruction, strategies, executive program and generally whatever its value is higher than its material value. Furthermore, Russ et al believe that instructural capital is all things which remain in a company after the employees go to their homes. Broking claims that in structural capital includes infrastructural assets such as technology, process and working methods and also contains IC such as technical knowledge, commercial brands and patent and utility. In addition, according to Stewart, instructural capital is existing knowledge in IT, patent and utility, design and commercial brands. From Benitez points of view, if an organization has weak system and approaches of working, overall, IC cannot reach its maximum potential ability. On the other hand, the organization with strong IC has supportive culture and this allows people to deal with new things and enter the process of trial and error to learn new things. Chen et al believe that instructural capital can help the employees to realize optimum intellectual performance and also organization business performance. This capital is the function of human capital. Therefore, these two capitals are interacted with each other and help the organizations to develop customer capital consonantly and apply it.

• Investor relation

Stewart claims that the main subject of customer capital is existing knowledge in marketing channel and customer relations. Customer capital indicates the potential ability of an organization for intangible external factor. Also Chen et al classify customer capital in the form of marketing capability, incentive market and customer loyalty. Fournel found that customer satisfaction can keep the business relation, reduce product price flexibility and increase company credit. These studies provided more evidence about the importance of customer capital as a key component of IC in an organization is under-researched. The growth of customer capital is dependent on support human and instructural capital. In general, customer capital is regarded as a bridge and intermediate of IC process. The determinant factor on converge IC to market value and as a result business performance of organization new definition, develop customer capital concept to investor relation and include existing knowledge on relation of organization with rivals, supplier provider and governmental council.

2.3. Services marketing mix

Serious attention management and marketing services can create evolution and new orientation. Many of dissatisfaction in society is the result of disability and related indifference to attendants who are active in banks and in service management understanding contacts and responsibility to needs and demands of those who are poor. In spite of being seller and buyer of type of services, we neither give attention to management nor market and marketing of them. If principle, techniques and related methods to management and service marketing are used certainly except that the quality of type of bank services is improved. In management and service marketing, one should pay attention to marketing mix actions. This is the collection of marketing tools
that the organization use to achieve its aims in target market. Marketing mix services include seven types of service action which are briefly introduced below.

- **Product**
  In service, it is necessary to pay attention to type, diversity, quality, currency, novelty, guarantee and standard and ... in order to reach customer satisfaction.

- **Price**
  Prices in service activities have two major roles: the first one is understanding and influencing customer decision, and the second one is influencing on operation management. Pricing includes determining the price level, pricing strategies, pricing methods and payment condition.

- **Place**
  Place is one of the important subject in management and marketing since, in addition to its role to tangibility of services, it is effective in accelerating of exchange and achieving the services. Over investment of some service, organizations such as banks and shop are illustrative of the importance of place in service marketing.

- **Promotion**
  The application of all the elements of communication includes promotion, seller and salesman ship, motivators or sale promotion and publicity in familiarity. Inviting and encouraging contacts are necessary in service sale and needs special strategy and program.

- **Personnel**
  According to synchronization of supply and demand in service and communication between services and servants, the role of each personnel is important. So it is necessary to consider serious selection, education and testing of personnel in order to meet the necessary criteria.

- **Physical assets**
  In offering their services, each of service organization uses the tools, either physical or material facilities, to get the actual services. If these facilities are more desirable and update, service quality and customer satisfaction is entirely possible to achieve. It is necessary to pay attention to human and the facility and its utility and that's the reason why the required investment is done for them.

- **Process**
  Management and marketing play a major role in quality of services. This process should be based on reality recognition, facility investigation, limitation and supply condition. Simplicity, speed results in customers’ satisfaction and relaxation. Therefore, this is one of the important elements of marketing mix and needs more investigation.

### 3. Hypotheses and research conceptual model

This current study has seven main and three sub-hypotheses as follows.

**Main hypothesis:**
There is a relation between IC and marketing mix actions in social security organization (SSO)

**Sub-hypotheses:**

**Hypotheses 1.** There is a relation between instrucrural capital and marketing mix action in SSO.

**Hypotheses 2.** There is a relation between human capital and marketing mix action in SSO.

**Hypotheses 3.** There is a relation between investor relation and marketing mix action in SSO.

According to theoretical basis, this study is based on Bentic’s comments about IC. The conceptual model of research shows that there is relationship between IC and marketing mix action (Fig. 1).

#### 4. Methodology

This study was practical, because its result would be useful for SSO managers of Chahar Mahal Bakhtiar for information accessing and decision making for problem solving. As mentioned above, the major goal of the study was exploring the relationship between IC and marketing mix action. Therefore, this study led correlational approach in analyzing the data. In collecting data and testing hypotheses, the statistical population of this study was 195 people of SSO in Chahar Mahal Bakhtiar province. In this study, two methods were used for data collection procedure: 1- for determining of marketing mix actions 6 questions was used. 2- For determining IC questionnaire was used. Questionnaire contained 42 questions and for measuring its reliability, Likert scale was used. Questionnaire’s validity was measured by using content analysis and was approved by some university and organization reporters. In addition, alpha cronbach test was used in order to measure its validity. A number of thirty questionnaires were distributed among participants after collecting and analysis by SPSS software.

The results showed that reliability coefficient of cronback was estimated 0.882, since this amount was more than 0.7; we concluded that the test had acceptable reliability. In order to investigate data normality, Kolmogorov – Simonov test was used and in testing hypotheses, parametric methods such as Pearson correlation method were used.

### 5. Data analysis

#### 5.1. The results of Kolmogorov –Simonov test
The obtained results showed that there was a significant level of marketing mix action, IC and its dimensions which were more than 0.05, therefore marketing mix action, IC and its dimensions had normal distribution. Accordingly, distributed data normality parametric test with higher accuracy was used.

### Table 1: Findings of kolmogorov – simonov test

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Significant</th>
<th>Normality result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td>0.628</td>
<td>normal</td>
</tr>
<tr>
<td>Instructure capital</td>
<td>0.196</td>
<td>normal</td>
</tr>
<tr>
<td>Investor relation</td>
<td>0.409</td>
<td>normal</td>
</tr>
<tr>
<td>Marketing mix action</td>
<td>0.707</td>
<td>normal</td>
</tr>
<tr>
<td>Intellectual capital</td>
<td>0.123</td>
<td>normal</td>
</tr>
</tbody>
</table>

#### 5.2. Testing the hypotheses

**Main hypothesis:** There is a relationship between IC and Marketing mix actions.

In order to explore the correlation between IC and Marketing mix actions, Pearson correlation coefficient was used. In this study, the relation was approved and the correlation was equal to $r=0.877$. As you see in Table 2, there was a positive and significant relation between them.

### Table 2: Findings of pearson correlation test for the main hypothesis

<table>
<thead>
<tr>
<th>Marketing mix actions</th>
<th>Correlation coefficient</th>
<th>Intellectual Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.877</td>
<td>Correlation coefficient</td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>Significans</td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>Frequency</td>
<td></td>
</tr>
</tbody>
</table>

**First sub-hypothesis:** There is a relation between human capital and marketing mix actions.

In order to investigate the correlation between marketing mix actions and human capital, Pearson correlation coefficient was used. As shown in the Table 3, the relation was approved and was equal to 0.860. Therefore, there was positive and significant relation between them.

### Table 3: Results of pearson correlation for the first sub-hypothesis

<table>
<thead>
<tr>
<th>Marketing mix actions</th>
<th>Correlation coefficient</th>
<th>Human capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.860</td>
<td>Correlation coefficient</td>
<td></td>
</tr>
<tr>
<td>0.000</td>
<td>Significans</td>
<td></td>
</tr>
<tr>
<td>172</td>
<td>Frequency</td>
<td></td>
</tr>
</tbody>
</table>

**Second sub-hypothesis:** There is relation between instructural capital and marketing mix action.

**Third sub-hypothesis:** there is significant and positive relation between investor relation and marketing mix action.

In order to test this hypothesis, Pearson correlation coefficient was used. This relation was approved and was equal to 0.851. Therefore, so shown in Table 5, there was a positive and significant relation between them.

### Table 5: Results of pearson correlation for third hypothesis

<table>
<thead>
<tr>
<th>Marketing mix actions</th>
<th>Investor relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.851</td>
<td>Correlation coefficient</td>
</tr>
<tr>
<td>0.000</td>
<td>Significans</td>
</tr>
<tr>
<td>172</td>
<td>Frequency</td>
</tr>
</tbody>
</table>

#### 5.2. Prioritizing intellectual capital dimensions

As you can see in Table 6, there was a significant difference between average rates of IC dimensions of SSO personnel (sig. 0.05). According to the results of Friedman test, the priority of IC dimensions is: human, instructural capital and investor relation.

### Table 6: Result of IC rating average according to Priorit

<table>
<thead>
<tr>
<th>Priority</th>
<th>IC Dimension</th>
<th>Average rating</th>
<th>Friedman</th>
<th>free degree</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Human capital</td>
<td>2.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Investor relation</td>
<td>2.19</td>
<td>82.093</td>
<td>2</td>
<td>0.00</td>
</tr>
<tr>
<td>3</td>
<td>Instructural capital</td>
<td>1.31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 5.3. The analysis of research model trace
In order to analyze the hypotheses related to the trace of study, regression analysis technique was used. In this technique, direct effect of independent variable on dependent variable was analyzed by using standard Beta coefficient. According to regression analysis test results (Table 7), we can claim that in significant level of 0.05, IC dimensions included human capital, instruture capital and investor relation that were 0.396, 0.419 and 0.315 respectively, and has positive and significant effects on marketing mix action.

### Table 7: The results of regression analysis test

<table>
<thead>
<tr>
<th>IC dimension</th>
<th>Sig</th>
<th>T</th>
<th>Standard Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investor relation</td>
<td>0.000</td>
<td>3.263</td>
<td>0.396</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.000</td>
<td>2.484</td>
<td>0.315</td>
</tr>
<tr>
<td>Instructure capital</td>
<td>0.000</td>
<td>3.109</td>
<td>0.419</td>
</tr>
</tbody>
</table>

### 6. Conclusion

IC is a collection of knowledge, information, intellectual assets, experience, competition and organizational learning which can be applied in producing wealth. In fact, IC contains all employees’ organizational knowledge and their abilities in order to produce added value and results in competitive advantage (Ghilich Lee & Moshabaki, 2008). Basically, organizations seek to improve their competence and capabilities in their field of business. On the other hand, non-basic activities were considered to have the possibility of outsourcing. Accordingly, the management of IC in the areas which are related to the fundamental competence of the organizations, or the core element of organizational business including planning, complementing, producing service-proving and its supporting, are put in the list of strategic and tactical planning of the organizational IC. For this reason, more examples of successful and unsuccessful examples of IC management which exist in different resources are assigned to organizational IC. What follows are the suggestions which are offered in order to improve the marketing mix actions and IC.

- **Suggestions to improve the service factor**
  - Adding variety to insurance services
  - Improving the quality of insurance services
  - Giving updates to the insurance services
  - Giving novelty to the insurance services
  - Providing guarantee and standard of insurance services

- **Suggestions to improve the price factor**
  - Balancing the price levels of insurance
  - Expertized pricing and clear services
  - Mapping out, implementing and evaluating the pricing strategies
  - Improving the conditions of repaying back the servicing price

- **Suggestions to improve the place factor**
  - Establishment of department of insurance in appropriate places

- The high speed in providing services and easy exchanges
- Making investment on appropriate places which provide services
- Suggestions to improve the promotion and market synergy factor
- Application of advertisement in order to convince people to buy the services
- Using the insurance service-sellers in order to convince other to but the services
- Utilizing incentive instruments, advance sale or reputation instruments in familiarizing others to buy the services

- **Suggestions to improve the Personnel factor**
  - Giving importance to staff selection in insurance organization
  - Giving importance to personnel’s training and motivation in insurance organization
  - Giving importance to personnel’s education and assessments in insurance organization

- **Suggestions to improve the physical assets**
  - Applying appropriate and updated tools for making use of the services
  - Increasing investment for physical assets
  - Giving importance to the facilities of insurance organization

- **Suggestions to improve the processes**
  - Providing services based on understanding the realities
  - Providing services according to the services’ supply and demand's conditions
  - Providing services on the basis of recognizing the facilities and limitatio.

### References


