### T.C. BAHÇEŞEHİR UNIVERSITY

# THE IMPORTANCE OF THE INTELLECTUAL CAPITAL IN TOURISM SECTOR AND ITS APPLICATION IN EAST BLACK SEA REGION

**Graduate Thesis** 

M.BARIŞ YÜCELER

## T.C. BAHÇEŞEHİR UNIVERSITY INSTITUE OF SCIENCE

#### INDUSTRIAL ENGINEERING

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#### **ABSTRACT**

# THE IMPORTANCE OF THE INTELLECTUAL CAPITAL IN TOURISM SECTOR AND APPLICATION IN EAST BLACK SEA REGION

#### M.BARIŞ YÜCELER

**Industrial Engineering Graduate Program** 

Supervisor: Yard. Doç. F. Tunç BOZBURA

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We are becoming the witness of a very rapid alteration showing impacts in every area of our recent days in which we are living the age of information. The configurations of the new markets and their expansions, due to the reason of having increases in the numbers of the rivals and being parallel to the innovations and developments in the communications and in the informatics technologies, also the management styles taking place in the tourism enterprises are also changing and the managements which take the knowledge and information as the basis are becoming evident in the forefront. The continuous increase in the number of the companies in restructuring aiming for the information economics and information management is the indication of this alteration. The most powerful companies are not the ones which have the biggest material and financial assets any longer but they are the ones which can strengthen their intellectual capitals and being able to manage and use this capital in the most efficient and determinant way.

In the context, the purpose of this study is to examine the meaning of the intellectual values possessed by the tourism enterprises in East BlackSea; their elements of formation, their measurements and also to examine the topic of how to transfer the said values to the tables in the result of the survey carried out. In order to achieve this, firstly the concept of intellectual capital has been emphasized and then the elements of the intellectual capital have been specified and the measurements of the intellectual values in the enterprises have been mentioned on the basis of these factors. In the conclusion part of the study, the assestment has been performed on these intellectual values existing in East Black Sea about how to transfer these values to service understanding.

**Keywords:** The intellectual capital in tourism sector; Application of the intellectual capital

#### ÖZET

# ENTELEKTÜEL SERMAYENİN TURİZM SEKTÖRÜNDEKİ ÖNEMİ VE DOĞU KARADENİZ BÖLGESİNDE UYGULAMASI

#### M.BARIŞ YÜCELER

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Bilgi çağını yaşadığımız günümüzde her alanda etkisini gösteren çok hızlı bir değişime tanık olmaktayız. Yeni pazarların oluşturulup genişletilmesi, rakip sayısındaki artış nedeniyle, iletişim ve bilişim teknolojilerindeki yenilikler vb. gelişmelere paralel olarak turizm işletmelerindeki yönetim tarzları da değişmekte ve bilgiyi esas alan yönetimler ön plana çıkmaktadır. Bilgi ekonomisini ve bilgi yönetimini amaçlayarak yeniden yapılanmaya giden şirket sayısının sürekli artması, bu değişimin bir göstergesidir. Artık en güçlü şirketler, en büyük maddi ve finansal varlıklara sahip şirketler değil, entelektüel sermayelerini güçlendirebilen ve bu sermayeyi en etkin ve en etken şekilde yönetebilen ve kullanabilen şirketlerdir.

Bu bağlamda ele alınan bu çalışmanın amacı, Doğu Karadeniz'deki turizm işletmelerinin sahip oldukları entelektüel değerlerin; ne anlama geldikleri, hangi unsurlardan oluştukları, nasıl ölçülebildikleri ve söz konusu değerlerin yapılan anket sonucunda tablolara nasıl aktarılabileceği konusunu incelemektir. Bunun için çalışmada ilk önce entelektüel sermaye kavramı üzerinde durulmuş, daha sonra entelektüel sermaye unsurları belirtilerek işletmelerde entelektüel değerlerin bu unsurlar bazında ölçülmesi konusuna değinilmiştir. Çalışmanın sonunda ise özellikle Doğu Karadeniz de var olan entelektüel değerlerin hizmet anlayışına nasıl aktarılabileceği konusu değerlendirilmiştir.

**Anahtar kelime:** Turizm sektöründe entelektüel sermaye; entelektüel sermayenin Doğu Karadeniz bölgesinde uygulaması.

## **CONTENTS**

| ACKNOWLEDGEMENT  | i  |
|--|----|
| ABSTRACT   |    |
| ÖZET   |    |
| CONTENTS   |    |
| TABLES   |    |
| FIGURES  |    |
| 1.INTRODUCTION   |    |
| 1.1 HISTORY OF INTELLECTUAL CAPITAL  |    |
| 1.2 WHAT IS INTELLECTUAL CAPITAL?  |    |
| 1.3 COMPONENTS OF THE INTELLECTUAL CAPITAL                                       |    |
| 1.3.1 Vision   |    |
| 1.3.2 Mission/Missionary   |    |
| 1.3.3 Leadership   |    |
| 1.3.4 Technology   |    |
| 1.3.5 Processing.  |    |
| 1.3.6 Sustainizing   |    |
| 1.3.7 Believing and Doing the Works  |    |
| 1.4 COMPOUNDS OF INTELLECTUAL CAPITAL  | 6  |
| 1.4.1 Human Capital  |    |
| 1.4.2 Organizational Capital   |    |
| 1.4.3 Relationship Capital   |    |
| 1.5 THE IMPORTANCE OF INTELLECTUAL CAPITAL IN TOURISM                            | 10 |
| ENTERPRISES  | 16 |
| 2.APPLICATION IN EAST BLACK SEA REGION   |    |
| 2.1 MODEL STUDY RELATED TO THE MEASUREMENT OF INTELLECTUAL                       |    |
| CAPITAL IN BLACK SEA REGION  |    |
| 2.1.1 Purpose of the Research  |    |
| 2.1.2 Selection of Research Method   |    |
| 2.1.3 Application  |    |
| 2.1.3.1 Determination of Intellectual Capital Criterion                          |    |
| 2.1.3.2 Preparation of Intellectual Capital Survey                               |    |
| 2.1.3.3 Statistical Analysis of Intellectual Capital Survey                      |    |
| 2.2 THE RESEARCH OF THE RELIABILITY OF THE QUESTION                              | 23 |
| 2.2.1 Evaluation of Human Resources Factor Analysis                              |    |
| 2.2.2 Importance Given by the Hotel Employees to the Works Done by Them          |    |
| 2.2.3 Competence Level of Hotel Employees  |    |
| 2.2.4 Leadership Competence of Hotel Management and the Reflection of this to th |    |
| Employees  |    |
| 2.2.5 Evaluation of the Organizational Capital with Factor Analysis              |    |
| 2.2.6 Informing the Employees and its Importance for the Solution of Customer    |    |
| Problems   | 30 |
| 2.2.7 Importance Given to the Ideas of the Hotel Employees                       |    |
| 2.2.8 The Value of Information System for the Sharing of the Knowledge Owned by  |    |
| Hotel Employees  | -  |

| 2.2.9 The Importance Given by the Hotel Management for the Occurances of the N      | ew   |
|---|------|
| Ideas   | 31   |
| 2.2.10 Sharing of the Resources   | 32   |
| 2.2.11 Knowledge Contained by the Information System and the Importance of this     | s on |
| the Hotel Employees   | 32   |
| 2.2.12 The Existence of an Efficient Bureaucratic Systam in the Organization        | 33   |
| 2.2.13 Factor Analysis and Evaluation of Relationship Capital                       | 33   |
| 2.2.14 The Reasons of the Increase in the Market Share                              | 36   |
| 2.2.15 Understanding of the Hotel Employees for the Target Group of the Hotel       | 36   |
| 2.2.16 Activities to be the Sponsor and their Reflections of the Information System | 36   |
| 2.2.17 Required Works to be done in order to increase the Customer Satisfaction     | 38   |
| 2.3 ANOVA and T-Test Results Applied on Intellectual Capital Survey                 | 40   |
| 3.CONCLUSION  | 44   |
| RESOURCES   | 47   |
| APPENDICES  | 50   |
| APPENDIX A- Survey  | 51   |
| APPENDIX B  | 58   |
| APPENDIX C  | 59   |
| APPENDIX D  | 67   |
| CURRICULUM VITAE  | 75   |

## **TABLES**

| Table 2.1: Labor Force Types   | . 8  |
|--|------|
| Table 2.2: Orientation of Labor Force  | 8    |
| Table 2.3: Organizational capital Elements   | . 10 |
| Table 2.4: Elements of Organizational Competence   | 11   |
| <b>Table: 2.5:</b> Distribution Table of Survey Replies according to Titles  | . 19 |
| Table: 2.6: Distribution Table of Survey Replies according to business experience of the Hotel Personel.   | 20   |
| <b>Table: 2.7:</b> Distribution Table of the Hotels according to the replies given to the Survey.  | 20   |
| Table:2.8: Distribution Table according to the number of personnel working in the Hotels.  | 21   |
| Table:2.9: Bed Capacity Rates of the Hotels in connection with the Survey Result   | .21  |
| <b>Table:2.10:</b> The Rates of the Foreign Tourists accommodating in the Hotels taking place in East Black Sea.   |      |
| Table:2.11: The Rates of the Domestic Tourists accommodating in the Hotels taking Place in East Black Sea.   | 22   |
| Table :2.12: IC Categories and IC Sub-categories.  | 24   |
| Table: 2.13: Averages of the Questions and Standard deviations taking place in the Human Capital and contained by those groups                                   |      |
| <b>Table:2.14:</b> The Averages of the Questions and Standard Deviations taking place in the Organizational capital and contained by that Group                  | 28   |
| Table:2.15: The Averages of the Questions and Standard Deviations taking place in the Relationship capital and contained by that Group                           | 34   |
| <b>Table:2.16:</b> Average value Table showing the differences of the managers possessed by the Accommodation Facilities for the managements of their Companies. | .39  |
| <b>Table:2.17:</b> Average Table showing the rates of the stars owned by the Accommodation Facilities.   | .41  |
| Table:2.18: The Names of the Companies replied Intellectual Capital Survey   | 58   |

## **FIGURES**

| Figure 2.1: Components of Intellectual Capital        | .7  |
|---|-----|
| Figure 2.2: Formation Stages of Relationship capital. | .14 |
| Figure: 2.3: The three category IC model.             | .41 |

#### 1.INTRODUCTION

The purpose of this research is to search the affect of the intellectual capital on the tourism sector taking place in East Black Sea and to be able to draw the attentions on the topic of intellectual capital. In order to achieve this, firstly the concept of intellectual capital has been emphasized and then the elements of the intellectual capital have been specified and the measurements of the intellectual values in the enterprises have been mentioned on the basis of these factors.

#### 1.1 HISTORY OF INTELLECTUAL CAPITAL

Although the appearance of intellectual capital as a concept goes back to the years of 1960s, the appearances of the first samples of the concept in appliaction area fall into the second half of 1990s. The said delay is verbalized with the business medium qualifications of that time by having more rigid relationships between the employee-workplace-customer when compared with the recent days and having limitations on the developments of the new business areas based on the new ideas and inventions because of the rigidity. (Tekin 1999 www.strata.com.tr.19.04.2002)

In 1969, the term of intellectual capital was used by John Kenneth Galbraith for the first time and it has gained popularity specially in the recent years by the theoric and applicable publications from the industry (Bassi and van Buren 1999), (Bontis and Choo 2001), (Edvinsson and Malone 1997), (Stewart 1997), (Sveiby 2001), (Wiig 1997) as well as the publications of the magazines unique to this topic (JIC 2001) and by the arrangements of the congresses and seminars (IC 2001), (Stewart 2000).

When Galbraith makes reference to individual ownership, he intensifies on the intellectual capital concept possessed by the enterprises of our recent days. Being parallel to the developing information economy, it is accepted that intellectual capital has been brought on the agenda by Thomas Stewart for the first time in June 1991 with the meaning of organization with his article put on the paper and titled as "Brainpower".

In this article, intellectual capital has been defined as "the aggregate of everything providing competition advantage to the enterprise in the market and known by the employees of the enterprise" (Stewart 1991).

Among the other intellectual capital definitions of Stewart, there are the ones as "the information and know-how accumulation of the individual as the resource of innovativeness and renovation" and "competence, skill and expertise embedded in the human brains" and can be counted in this scope (Stewart 1994).

In his book published in the year of 1997 and named as ''Intellectual Capital: New Richness of the Organizations'', Stewart has made the general definition of the intellectual capital as "acquired and applicative information" and he has also specified that this concept contains the information about the processes of the organization, its technologies, patents, the skills of the wage earners and also the information about the customers, suppliers and other relevant parties.

Another comprehensive definition is the one made by Annie Brooking (1996). According to Brooking, intellectual capital is "the entire intengible assets providing the continuity of the enterprise's activities".

On the other hand, Klein and Prusak have defined the intellectual capital as "the intellectual material which is formalized, obtained and actuated to produce an asset with higher value" (Klein and Prusak 1994).

Leif Edvinsson is known as the first intellectual capital manager and he is also another pioneer name for the topic and he defines the intellectual capital as "the information which can be converted into value". (Edvinsson and Malone 1997).

#### 1.2 WHAT IS INTELLECTUAL CAPITAL?

Before making the definition of the intellectual capital, it will be useful in terms of examining the topic to put forward the definitions of 'intellectual' and 'capital' separatelly. Intellectual word has source based upon the western languages and it is a concept to express the persons of the fraction of enlightened ones who had high degree of education in science, arts and culture areas (Seyidoğlu 1992).

On the other hand, the word 'capital' exhibits differences depending on the point of view. For example: in terms of accountancy, it is "the source of all kinds of economical values owned by the enterprise" (Sürmen 2000), in terms of economy science it is "the produced production means used for the production of commodity or service" (Yazıcı, M. 1990), in terms of enterprising science it is "the aggregate of the entire material and

intengible assets owned by the enterprise being suitable to the purposes and production endeavours" (Yazıcı, K. 2001) while in the daily life it is used to express "the money stock accumulated in the result of the previous savings".

Being the witness of rapid alterations and developments, the enterprising of the 20th century has brought two concepts together inevitably. This alteration has followed a route being parallel to the communal structure as well as being parallel to the economical structure. As the general feature of the industrial society and economy, the importance given in the orientation of concrete –material- assets – building, machinery, equipment, ... etc – has left place to abstract assets like information, competence and communication in this context with the transition to information economy.

Information is the intellectual accumulation of the past and it has become the an important factor of enterprising in our age and this situation has brought the particularities like possessing the intengible assets expressed as intellectual in the enterprises and their usings and managings in the agenda. Due to the reason of affecting the survivals of the enterprises either in the domestic or global markets and because of being directly affecting the factors like competing with the existing and probable competitors, it is not possible for the enterprises to remain insensitive for the implemented alteration and developments.

As the natural result of the different point of views of the ones who are interested in the topic related to intellectual capital concept, there have been several definitions made on the concept of intellectual capital. Some of the said definitions are mentioned below.

To say the least of it, intellectual capital is defined as "the information value of an organization" (Akpınar 2000), or "the recorded information and the competences, information and the experiences of the enterprise employees and owned by the enterprise as being apathetic and invisible assets" (Büyüközkan 2002).

Thomas A. Stewart has been closely interested with the topic and in his book titled "Intellectual Capital- New Richness of the Organizations" he has defined the intellectual capital as: "the intellectual material which can be inserted in using in order

to create richness; namely, it is information, intellectual acquisition and experience" (Stewart 1997).

Hugh McDonald has defined the intellectual capital as "the information existing within an establishment and used to create additional advantage, in other words, the aggregate of the particularies known by the persons in the company and providing competition superiority" (Stewart 1997) while Klein and Prusak have evaluated it as "the intellectual material which is formalized, obtained and actuated to produce an asset with higher value" (Büyüközkan 2002).

The ones who examine the topic from enterprising or accounting point view define the intellectual capital as: "the difference of the entprise's book value and the value being ready to be paid for this value" (Brooking 1997). This definition rather reflects the definition of amenity value which takes place in the traditional accounting and expressed as the "good will" in the foreign literature. The importance of the intellectual capital is in its formation, management and in the success of the enterprise and in the situation of having it assessed in terms of its compounds shows that it has a broader structure than the definition of the traditional amenity value definition.

By the studies carried on the intellectual capital also named as "apathetic" or "invisible" assets, in summary we can say the below stated:

- i. Intellectual capital is the most important competition source of a company.
- ii. Intellectual capital is the aggregate of the 'hidden' assets of the company which are not in the balance sheet of the company. For this reason, this particularity contains the knowledgeds of the members forming the organization and the knowledge remaining in the company when they leave the company.
- iii. The future success of the company depends on how the intellectual capital owned by the company is managed.

By taking the above stated explanations into consideration, the basic ingredient of the *intellectual capital* are composed of information, skill, intelligence and it can be defined as the entire intengible –abstract- assets such as knowledge, information systems,

patents, copyrights and licence agreements which directly affect the existing and future success of the enterprise and exhibiting the position of the company when compared with the competitor companies.

#### 1.3 COMPONENTS OF THE INTELLECTUAL CAPITAL

#### **1.3.1 Vision**

Placing today in front of the future.

#### 1.3.2 Mission/Missionary

This particularity is related to comprehend/to cause the comprhension of the logic and the meaning of Intellectual Capital.

#### 1.3.3 Leadership

Focuses on the functionality of the intellectual capital and on the data evaluation related to the correlation with the other functions and logical elicitation.

#### 1.3.4 Technology

It covers the combination system retaled to collection and the protection of the information

#### 1.3.5 Processing

Concretization

#### 1.3.6 Sustainizing

To do the investment on the future.

#### 1.3.7 Believing and Doing the Works

Intellectual Capital is believing and doing the works and developments for it.

#### 1.4 COMPOUNDS OF INTELLECTUAL CAPITAL

Different names are used by the interested ones of the topic for the compounds forming the intellectual capital although they engrave the same theme and these compounds are expressed as intellectual capital model or components. Skandia company of Switzerland is the first one in the world publishing the intellectual capital report and according to this company, intellectual capital is specified to be configured of two components as "human" and "structural". (Edvinsson 1997). According to the report, organizational capital is divided into two sub-sections while the organizational capital is divided into 'renovation' and 'process' capitals under its structure.(Büyükozkan 2002).

As for according to another point of view, it is specified that the components of the intellectual capital is formed by human capital, organizational capital with the mutual interaction of the customer and relational capital. (Roos –Roos 1997).

Another approach has been put forward by Sveiby and the components of the intellectual capital is in the form of internal structure – apathetic assets on the level of organization formed by company culture, information systems and way of working – and external structure – the capital formed in the result of the relationship with the environment – and by the competences of the employees. (Bukh et al. 2001).

In the approach made by Dzinkovski (2000), the components of the intellectual capital are classified as the employees, enterprise and the customers (Guthrie 2001).

There are also others who add renovation and development capital to the above stated definitions. In the following section, intellectual capital components will be examined under three headings as human capital, organizational capital and relationship capital as generally accepted.

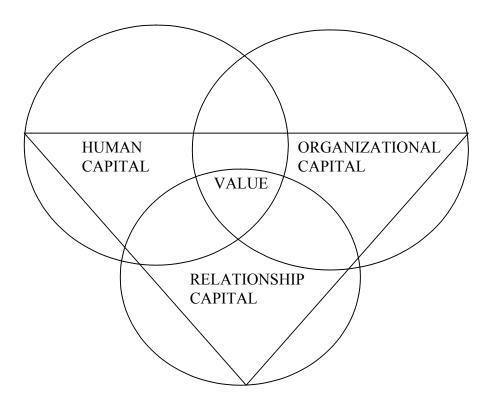


Figure 2.1: Components of Intellectual Capital

**Source:** http://www.danismend.com/konular/insankaynaklari/inka entelser.htm

#### 1.4.1 Human Capital

Human Capital is accepted as the fundamental component of the intellectual capital models. Human Capital expresses the aggregate of the knowledge, competence, experience, perception and the attitudes of the humans taking place in the structure of the enterprise.

In the simplest term, it can be defined as the information stock belonging to the employees of the enterprise (Bontis ve diğerleri 2001) and it depends on the information, competence, motivation, business performance of the employees. The development of this capital can be implemented by giving importance to the ideas of the employees and by listening their proposals in the orientation of business development.

Human Capital is not a component of which the enterprises may possess the ownership. The enterprises can not possess the human capital; they can only utilize the knowledge and the competences acquired by the persons, in other words, the enterprises can lease it (Edvinsson 1997).

**Table 2.1:** Labor Force Types

| Difficult to Replace | Difficult to Replace  |
|----------------------|-----------------------|
| With Low Added Value | With High Added Value |
| Easy to Replace      | Easy to Replace       |
| With Low Added Value | With High Added Value |
|                      |                       |

Source: http://www.danismend.com/konular/insankaynaklari/inka\_entelser.htm

By looking at the labor force of a company, we can place the humans in the relative squares of the above table.

Table 2.2: Orientation of Labor Force

| Difficult to Replace                   | Difficult to Replace             |
|--|----------------------------------|
| With Low Added Value                   | With High Added Value            |
| FURNISH WITH INFORMATION $\rightarrow$ | ADD TO THE CAPITAL               |
| Easy to Replace                        | Easy to Replace                  |
| With Low Added Value                   | With High Added Value            |
| PROCEED TO AUTOMATON ↓                 | <b>DIFFERENTIARE</b> ↑ <b>OR</b> |
|  | GIVE OUTSIDE ↓                   |

Source: http://www.danismend.com/konular/insankaynaklari/inka entelser.htm

Human Capital of a company takes place in the upper right square and it becomes concrete by the persons who create the products and services with their competences and experiences which cause the customers to prefer this company instead of a competitor company. This is an asset. The others are – the ones taking place in the other three squares – merely labor costs. The company may assign high prices for its

products and can stand strong against its competitors depending on the intensity of the human capital owned by that company; because, it will be very difficult for the competitors to exhibit equivelant labor force against the said competences and it will be very difficult for this company to replece them. The company who may see this, will make less expense and investment to the works which are valued by the customers and to the works in which the competences of the employees can be replaced by the others easily and it will pass to automation in the possible works.

The management difficulty requiring more skills are encountered with the ones taking place in the upper left square. We need these people but the customers do not give value to the works performed by them. To furnish the works of these employees with the information is the objective here. The meaning of this is to have the said works amended in a way to add more information value and to provide them to start to be useful for the customers. The ones taking place in the bottom right square provide a preference possibility. You may have their works done outside. By having the works done outside, the company gets itself released from the burden of making investment in the expertise which is not taken under registration. The ones taking place in the upper right square participate in the human capital of the company. (Steward 1997)

Human beings can be hired but the human beings can not be owned. In our recent days, the employees have the inceasing tendency of showing the deepest loyalties to their professions and to the practical communities rather than showing the same for their employers. For this reason, in order not to lose the acquired human capital it is required to have the employees be loyal to the company by means of some kind of a continuity and some kind of a belonging feeling.

#### 1.4.2 Organizational Capital

Organizational capital articulates the mixture of the entire components that are institutionalised in the form of methods and policies from the information technologies – databases, recordings and various kinds of documentation and management philosopy – to the organization culture and from the financial relations to the patents which are owned by the enterprise as an organization.

Inventorship is based on knowledge. And, as we have stated before, knowledge is produced by the persons taking place in an organization and it is a compound of the human capital. The importance of the knowledge for the human capital in the enterprises can not be underestimated. However, it is the management of the entrprise that will convert the human capital into performance for the successs of the company. As to enterprise management, it generates the organizational capital with the other compounds. For this reason, organizational capital becomes more important than the human capital.

Although it exhibits difference from one enterprise to another, it is possible to list the components forming the organizational capital in the organization as below (Önce 1999)

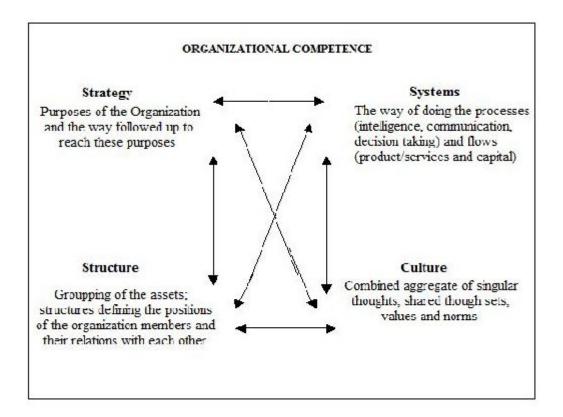
**Table 2.3:** Organizational capital Elements

| Related to Intellectual Capital | Infrastructure Assets |
|---------------------------------|-----------------------|
| Patents                         | Management Philosophy |
| Copyrights                      | Organization Culture  |
| Design Rights                   | Management Processes  |
| Commercial Secrets              | Information Systems   |
| Commercial Emblems              | Web Systems           |
| Emblems Related to Service      | Financial Relations   |

Source: Önce, Saime (1999)

We can also name the organizational capital as the aggregate of the organizational competences to enable the organization to respond to the needs of the market. The elements forming the organizational competences are given in the table shown below. (http://www.danismend.com/konular/insankaynaklari/inka\_entelser.htm 09.04.2007)

**Table 2.4:** Elements of Organizational Competence



**Source:** http://www.danismend.com/konular/insankaynaklari/inka entelser.htm

Organizational capital has two purposes required to serve. The first one of this is to put the transferable information aggregates in order and to protect the descriptions in the adverse situation. Its second purpose is to provide access to data, experts and expertise – including the aggregates of the information – in a way to provide persons to become the part of the activity on timely manner. (Steward 1997)

Human capital and relationship capital can be temporary, but the organizational capital is permanent. For example, the employees of the consumers may direct themselves to

the other companies which provide more values to them and understand their values. For this reason, the most compelling topic in the management of the intellectual capital is the issue of conversion of the human and relationship capitals into organizational capital which is more consistent. Thus, the created organizational capital can become to be used, renewed and developed by the time.

#### 1.4.3 Relationship Capital

The companies must use the information obtained with the relationships well in order to be able to compete with the competitors with the best possible way. One of the most important elements of the environment is the customer. In our recent days, to satisfy and to please the customer with the best possible way is the common purpose of many companies. Other than the customer, the relationships with the supplier, partners and investors are included in this capital.

Relating to this topic, Stewart gives place to these articulations: "Every company having customers has the relationship capital". Hubert Saint-Onge defines this capital as the title value of the company, and the relationships sustained with the person or institutions to whom the sales are made. The customers are the most appearant one amount the three general categories of the intellectual assets — human capital, organizational capital ebd relationship capital. They are the ones who pay the bills. For this reason, the footprints they leave in the financial reports can be observed easier than the stamps appended by the employees, systems or capacities ... the market share reflecting the relationship capital, tracking the indications such as the rates of adhering or escaping the customers, profitability per customer are relatively easy" (Stewart 1997).

By skidding the intelligence and the economical power carried by it towards the flow of commodity and service, it has gained vital importance for the companies to manage the customer relations with a new understanding. Just like they do for their personnel and structures, the companies also have to make investment in their customers. Relationship capital shows similarities with the human capital in many respects. Just like you can not own the humans, you can not own the customers as well. However, not because of having the companies to increase their information assets on behalf of the company,

just like it happens during making investment for the creation of information in the name of the company, a company and its customers can develope the intellectual capital under their individual or collective ownerships. (Steward 1997).

Customer satisfaction can be measured as regards to the customers demands for the commodities or the services of the enterprise. Later, these demands return to the enterprise as human and organizational capital mechanisms and it is seen as the change in the distribution channels and at the level of service. (Önce 1999).

It is possible to put the elements of Relationship capital in order as stated below (Guthrie 2001)

- i. Brands
- ii. Cooperation Related to Business
- iii. Customers
- iv. Licence Agreements
- v. Customer Loyalty
- vi. Agreements with the Desired Qualification
- vii. Enterprise Name
- viii. Franchising Agreements
- ix. Distribution Channels

"Customer is our Benefactor" motto taking place in our culture must have put forward its value by having the meaning of today as being the old version of relationship capital. Having the people behaving for the customers away from being natural and sincerity and playing-acts can be seen as one of the reasons for the enterprises not being able to benefit from the relationship capital as much as it should have been. This must be the point of difference between "Customer is our Benefactor" philosphy of the past and modern marketing understanding based on the customer satisfaction of our recent days. Relationship capital is the treasury where the producer and the consumer do not challenge for the surpluses (such as the cost saving) they obtain together and instead of this, it is the treasury which is accumulated when they decide to acquire these together as implied or openly. The surplus becomes bigger depending on the tightness of the partnership between the buyer and the seller. The accompanying factor for the buyer-

seller closeness stages and the transitions between the stages can be explained with the below seen diagram together with the growth in the organizational capital and relationship capital.

# ORGANIZATIONAL CAPITAL

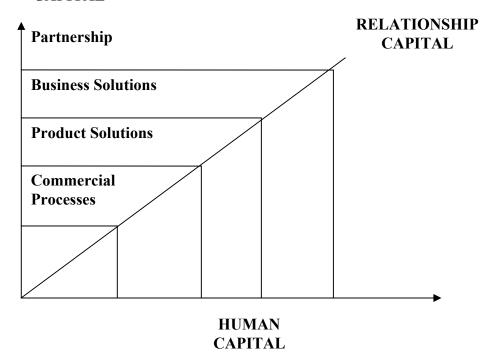


Figure 2.2: Formation Stages of Relationship capital

Source: http://www.danismend.com/konular/insankaynaklari/inka entelser.htm

The above seen company-customer relationship taking place at four different levels, can be explained as follows:

**Commercial Processes:** This is the one-time selling of the product or service. These are the paocesses in which the sellers merely do the sales and the customers merely do the purchasing.

**Product Solutions:** This is the proposal of a product or the service with the appropriate qualifications in order to meet the specification requested by the customer.

**Business Solutions:** It is to provide a service to the customer by evaluating the gaining and qualifications in order to create the value needed by the customer.

**Partnership:** This is working with the customer in mutual understanding and confidence in order to create the business possibilities and for their evaluations. (http://www.danismend.com/konular/insankaynaklari/inka entelser.htm 09.04.2007).

Customer relations start with the commercial processes and they gradually develope and as the last stage it reaches to cooperation, namely partnership. The seller having the orientation of cooperation in the commercial buy sell increases its profit share and consequently increases the relationship capital on the account of customer share and safety.

# 1.5 THE IMPORTANCE OF INTELLECTUAL CAPITAL IN TOURISM ENTERPRISES

As being different than the other commercal enterprises, tourism enterprises are the units having service factor on the basis of the production. Service is the important reality because the producer and the consumer of it is the individual and because of this it is important as the enterprises carry on their activities on the basis of human and they also achive their successes on the same basis. Because of having the circumstances like this, in order to increase the productivity of the enterprise and for the provision of profitability, formation of intellectual capital and its accumulation has become the essential element for the tourism enterprises. It is seen that the enterprises having the placement of the awareness of the intellectual capital and its aplication in a correct way achieve the success easier when compared with their competitors and they also achieve the sustainability in the tourism sector heving intensified competition. In tourism enterprises, success is measured with the customer satisfaction. Satisfaction occurs by meeting the expectations. Determination must be done correctly and on time in order to meet the expectations. Right at this point, there is the need for the intellectual capital accumulation. Achievement of the customer to come in the hotel, presentation of the service, providing the sustainability is directly proportional with the quality of the service. The quality of the organization and service can be possible with the adequateness of the employees. The trainings, knowledge accumulations, experiences, aptnesses, operation hand harmonies are the factors providing the adequateness. Having

the employees to reflect their adequatenesses to the service or having them in the endeavour to reflect has extreme importance in our recent days in terms of the directors for the enterprises to reach the line targeted by them. As mentioned, in the result of determination of the intellectual capitel in terms of importance for the centerprise, it is seen that tousim enterprises are structuring themselves in this meaning. For the employment of the employee, attention is be paid for his/her suitability to the organizational structure. Tourism enterprises are more aspitant each passing day to configure the intellectual capital and to apply this capital as well as eliminating the issues occuring during the application. It is not possible for a tourism enterprise to reach the targeted line without having the intellectual capital or when it is not used effectively. The essential capital of the enterprises having success and sustaining the same in the sector or the essential capital providing the productivity is the intellectual capital.

#### 2.APPLICATION IN EAST BLACK SEA REGION

# 2.1 MODEL STUDY RELATED TO THE MEASUREMENT OF INTELLECTUAL CAPITAL IN BLACK SEA REGION

#### 2.1.1 Purpose of the Research

The purpose of this study is to try to determine from which criterion the intellectual capitals of the accommodation facilities taking place in East Black Sea are formed and depending on these criterion the purpose is to put forward the relationship between intellectual capital and its measured Market Value.

#### 2.1.2 Selection of Research Method

In order to search for the features of the intellectual capital, the recommended research model in general is survey based on Liker- type scale. (Bontis,1998). Because of this reason, it has been decided to apply survey and interview techniques being connected with Liker-type scale related to the measurements of human relations and organization capital.

#### 2.1.3 Application

Below stated steps have taken place during the Research:

- i. Determination of Intellectual Capital Criterion
- ii. Preparation of Intellectual Capital Survey
- iii. Statistical Analysis of Intellectual Capital Survey Application

#### 2.1.3.1 Determination of Intellectual Capital Criterion

The purpose of the Post Graduate Thesis is to find which intellectual capital criterion are effective in the successes of the enterprises operating in East Black Sea and there has been a preliminary work performed for this purpose. With this reason, literature

research has been done for the determination of the intellectual capital criterion and below defined criterion have been selected:

- i. Having the criterion been used in more than one studies which have been done previously,
- ii. Not to have the criterion contradicting too much with the existing organization structures of the enterprises taking place in East Black Sea,
- iii. To have the criterion to peovide quantitative dimension as well as providing qualitative feature to the intellectual capital concept.

#### 2.1.3.2 Preparation of Intellectual Capital Survey

The purpose of the intellectual capital survey is to find which intellectual capital criterion are effective in the successes of the accommodation facilities operating in East Black Sea. With this reason, as the target group of the survey, the persons having the life experience such as the founders, chairmen and top management directors (general manager, deputy general manager, chieftain and the other personnel) of the enterprises operating in the tourism sector and within the borders of East Black Sea. For each of the intellectual capital criterion decided to take place in our research, a suitable question has been prepared in the survey quastion form. As the survey has qualitative specifications, positive evaluated verdictive question form has been selected. As the reply form, 7stepped Liker type attitude measurer has been selected. As demographic data; names and surnames, their titles in the business place, their working years in the business life, the name of the hotel they work, the number of stars of the hotel they work, the number of the employees in the hotel they work, bed capacity of the hotel they work and the percantages of the domestic and foreign tourists accommodated within one year have been demended from the ones who filled the survey. This prapared survey has been sent to 60 companies taking place in East BlackSea via mail and fax and 47 valid surveys were returned. The names of the companies for the incoming surveys are in Table 2.18 Preface and survey template are in Appendix.

#### 2.1.3.3 Statistical Analysis of Intellectual Capital Survey

As a result of the performed survey, there are 47 valid surveys collected. Statistical results of these valid surveys for their demographic data are seen below.

The distribution of the persons replied to the survey is in Table 2.5 according to their titles.

Table: 2.5: Distribution Table of Survey Replies according to Titles

|                        | % RATE |
|------------------------|--------|
| CHAIRMAN               | 2,13   |
| GENERAL MANAGER        | 36,17  |
| MANAGER                | 8,51   |
| MANAGER ASSISTANT      | 2,13   |
| FRONT OFFICE MANAGER   | 8,51   |
| ACCOUNTING MANAGER     | 2,13   |
| FRONT OFFICE CHIEFTAIN | 2,13   |
| KITCHEN CHIEFTAIN      | 6,38   |
| RESTAURANT CHIEFTAIN   | 2,13   |
| RECEPTIONIST           | 12,77  |
| HOUSEKEEPER            | 12,77  |
| WAITER                 | 4,26   |

In terms of the efficiency of the survey, the size of the number of the personnel for the directors who replied to the survey for the hotels they work also has importance. The distribution of the personnel working in the hotels is shown in Table 2.6. In the result of the analysis of the demographic date of the survey, it has been accepted that the employees of the hotels have adequate management experiences and it is also accepted that these persons have enough knowledge to put forward ideas about the intellectual capital because they have top management positions and consequently they have adequate knowledge and experience.

**Table: 2.6:** Distribution Table of Survey Replies according to business experience of the hotel Personnel.

| Business experience (Year) | RATE % |
|----------------------------|--------|
| Between 0_5                | 17,02  |
| Between 5_10               | 31,91  |
| Between 10_15              | 23,40  |
| More than 15               | 27,66  |

In the result of the replies given to the survey, there have been several hotels opened in East Black Sea because of the development of the tourism sector with every passing day and the majority of these hotels have been opened as three star hotels and their rates regarding the starsa re specified below. In the result of this, the conclusion of the survey has been achieved in a realistic way because the employees of these hotels who replied the survey are the ones whor have been employed in the ones having high quality of services.

**Table: 2.7:** Distribution Table of the Hotels according to the replies given to the Survey.

| Stars        | RATE % |
|--------------|--------|
| WITH NO STAR | 13,04  |
| 2 STARS      | 17,39  |
| 3 STARS      | 47,83  |
| 4 STARS      | 17,39  |
| 5 STARS      | 4,35   |

In connnection with the result of the survey, having small number of hotels with 4 or 5 stars in East Black Sea and because of providing the accommodation services with the accommodation enterprises having 2 or 3 stars has naturally caused to have small amount of employees working in these enterprises. In the result of the survey performed in East Black Sea, the highest rate of the employees takes place between the interval of 15-30 and this situation can be seen in Table 2.8.

**Table:2.8:** Distribution Table according to the number of personnel in the Hotels

| Number of personel | RATE % |
|--------------------|--------|
| Between 0-15       | 0,00   |
| Between 15-30      | 46,81  |
| Between 30-50      | 38,30  |
| Between 50-100     | 8,51   |
| More than 100      | 6,38   |

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Being in connection with the result of the survey and as seen in Table 2.9, the highest value for the bed capacities of the hotels is between 100-150 while the lowest capacity has been found in the hotels having more than 200 beds.

**Table:2.9:** Bed Capacity Rates of the Hotels in connection with the Survey Result.

| Bed capacity    | RATE % |
|-----------------|--------|
| Between 50-100  | 23,40  |
| Between 100-150 | 40,43  |
| Between 150-200 | 21,28  |
| More than 200   | 14,89  |

In the result of the replies given to the survey, the rates of the domestic and foreign tourists ahows how East Black Sea is so weak in the tourism sector. As seen in the below seen Table 2.10 and 2.11, having the highest rate as less than 20 shows that foreigns tourists come to East BlackSea with a very few numbers. Having the majority of the customers accommodating in East Black Sea Region as domestic tourists is the indication of little amount of publicity made in this region while on the contrary the tourism sector is developing and growing with every passing day.

**Table:2.10:** The Rates of the Foreign Tourists accommodating in the Hotels taking place in East Black Sea

| Foreign Tourists | RATE % |
|------------------|--------|
| Between 100-80   | 6,38   |
| Between 80-60    | 0,00   |
| Between 60-40    | 12,77  |
| Between 40-20    | 21,28  |
| Less than 20     | 59,57  |

**Table:2.11:** The Rates of the Domestic Tourists accommodating in the Hotels taking place in East Black Sea.

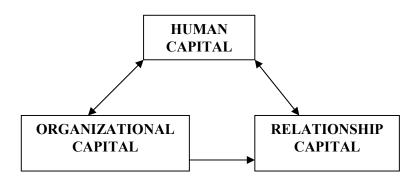
| <b>Domestic Tourists</b> | RATE % |
|--------------------------|--------|
| Between 100-80           | 59,57  |
| Between 80-60            | 21,28  |
| Between 60-40            | 12,77  |
| Between 40-20            | 0,00   |
| Less than 20             | 6,38   |

#### 2.2 THE RESEARCH OF THE RELIABILITY OF THE QUESTION

The second step of the statistical analysis is the research of the reliability of the questions. Reliability is the consistency between the independent measurements of the same thing. The measurement with low reliability does not have any scientific value, however having high reliability does not guarantee the suitability of the measurement for the purpose. Cronbah's Alpha test was recommended by Nunnally for the simplification and for the improvement of the survey, in other words, for the

determination of the variables which do not represent the common value desired to be measured (Bontis 2000). In the event of deletion of a relative criterion in Cronbah's Alpha test, 'alpha coefficient' was used when 'the variable is removed'. Nunally recommends that this coefficient must be 0,7 and higher. As seen in Figure 2.3, we collected our survey results is 3 criterion as human capital, organizational capital and finally as relationship capital and Cronbach's Alpha test was seperately applied by using SPSS Version 10.0.

Figure: 2.3: The three category IC model.



In the result of the survey we conducted for the purpose of searching the importance of intellectual capital in the accommodation facilities taking place in East Black Sea Region, we groupped our questions in 14 groups and sorted them by starting from the group having the highest average to the lowest averaged group. We collected the questions taking place in that group in the result of the replies given to the questions contained in each group.

1. Human Capital IMPORTANCE GIVEN BY THE HOTEL EMPLOYEES TO THE WORKS DONE BY THEM

COMPETENCE LEVELS OF THE HOTEL EMPLOYEES

COMPETENCE OF HOTEL MANAGEMENT AND THE REFLECTION OF THIS TO THE EMPLOYEES

2. Organizational Capital INFORMING THE EMPLOYEES AND IT'S IMPORTANCE FOR THE SOLUTION OF CUSTOMER PROBLEMS

IMPORTANCE GIVEN TO THE IDEAS OF THE HOTEL EMPLOYEES

THE VALUE OF INFORMATION SYSTEM FOR THE SHARING OF THE KNOWLEDGE OWNED BY THE

HOTEL EMPLOYEES

THE IMPORTANCE GIVEN BY THE HOTEL MANAGEMENT FOR THE OCCURANCES OF THE NEW IDEAS

SHARING OF THE RESOURCES

KNOWLEDGE CONTAINED BY THE INFORMATION SYSTEM AND THE IMPORTANCE OF THIS ON THE

HOTEL EMPLOYEES

THE EXISTENCE OF AN EFFICIENT BUREAUCRATIC SYSTEM IN THE ORGANIZATION

3. Relationship Capital THE REASONS OF THE INCREASE IN THE MARKET SHARE

UNDERSTANDING OF THE HOTEL EMPLOYEES FOR THE TARGET GROUP OF THE HOTEL ACTIVITIES TO BE THE SPONSOR AND THEIR REFLECTIONS ON THE INFORMATION SYSTEM

REQUIRED WORKS FOR THE INCREASE OF CUSTOMER SATISFACTION

**Table 2.12:** IC Categories and IC Sub-categories

As seen in the above Table 2.12, we groupped our survey as 3 criterion and as 14 groups taking place in these criterion. These criterion are Human Capital 3, Organizational capital 7, and Relationship Capital 4 and in total there are 14 groups.

#### 2.2.1 Evaluation of Human Resources Factor Analysis

In the result of the analysis related to Human Capital, total number of three groups of 13, 8, and 10 from the questions taking place in 14 groups and the questions taking place in these groups are shown in Table 2.13 as below.

Table: 2.13: Averages of the Questions and Standard deviations taking place in the Human Capital and contained by those groups.

|            | Human capital-sub-categories  | Mean |
|------------|---|------|
| group 13   | IMPORTANCE GIVEN BY THE HOTEL EMPLOYEES TO THE WORKS DONE BY THEM   | 5,89 |
| Question15 | Having the Hotel Employees to do their jobs all of the time by thinking and by making superior efforts.                         | 5,89 |
| group 8    | COMPETENCE LEVELS OF THE HOTEL EMPLOYEES  | 5,83 |
| Question 1 | Generally having the competence levels of the hotel employees to be at the desired (ideal) level in order to reach the success. | 5,83 |
| group 10   | LEADERSHIP COMPETENCE OF HOTEL MANAGEMENT AND THE REFLECTION OF THIS TO THE EMPLOYEES   | 5,77 |
| Question 2 | Having the hotel manager with high level of ''leadership'' competences.   | 6,15 |
| Question10 | Having the hotel employees satisfied with the roles and responsibilities they assume in the organization.                       | 5,38 |
|            | Human Capital (average value)   | 5,83 |

#### 2.2.2 Importance Given by the Hotel Employees to the Works Done by Them

Our 13th group takes place in the 5th row with 5,89 average and in the result of the questions contained, the selection has been made for the requirement of the hotel employees to do their works by thinking and with their best endeavours all of the time. This topic is important to think about because of its provision for the positive utilizations for themselves as well as to the company they work for.

Question 15) Having the Hotel Employees to do their jobs all of the time by thinking and by making superior efforts.

#### 2.2.3 Competence Level of Hotel Employees

8th group takes place on the sixth row with 5,83 average and in the result of the questions contained, it is requested that the genaral competence levels of the hotel employees must be on the desired (ideal) level in order to reach the success. The reason of this is the employment of the deprived personnel in terms of training or competence and this situation causes the increases of the labor force in the tourism companies taking place in the region with every passing day.

Question 01) Generally having the competence levels of the hotel employees to be at the desired (ideal) level in order to reach the success.

# 2.2.4 Leadership Competence of Hotel Management and the Reflection of this to the Employees

In the result of the replies taking place in 10th group, this group of ours takes place on the eight row with its 5,77 average and as the result of the sensitivity in managing and being managed in the topic with importance, this should be understood as having high level of 'leadership' competences for the hotel managers and it is required that the employees of the organization should be satisfied with the roles they assume and with their responsibilities.

Question 02) Having the hotel manager with high level of "leadership" competences.

Question 10) Having the hotel employees satisfied with the roles and responsibilities they assume in the organization.

### 2.2.5 Evaluation of the Organizational Capital with Factor Analysis

In the result of the analysis related to organizational capital, questions of 12, 5, 4, 11, 14, 3, and 714 out of the questions which we collected under 14 groups and the total number of seven groups consisting of 12, 5, 4, 11, 14, 3, and 7 and the questions taking place in these groups are shown in Table 2.14 of below.

**Table:2.14:** The Averages of the Questions and Standard Deviations taking place in the Organizational capital and contained by that Group.

|                           | Organizational capital-sub-categories   | Mean             |
|---------------------------|---|------------------|
| group 12                  | INFORMING THE EMPLOYEES AND IT'S IMPORTANCE FOR THE SOLUTION OF CUSTOMER PROBLEMS   | 6,12             |
| Question 48               | The impovement of the time period spent for the solutions of the curomers' problems with a big rate in last few years.                            | 6,38             |
| Question 17               | Hotel Employees to have broad information about the functions of the hotel and its departments and targets.                                       | 5,85             |
| group 5                   | IMPORTANCE GIVEN TO THE IDEAS OF THE HOTEL EMPLOYEES  | 6,01             |
| Question 33               | Having the application of the majority of important ones of the new ideas formed in the organization.   | 5,23             |
| Question 5                | Encouragement and the development of the hotel management for the establishment of communications between the different departments in the hotel. | 6,00             |
| Question 41               | Hotel to have determinant and defined quality targets.  | 6,81             |
| group 4                   | THE VALUE OF INFORMATION SYSTEM FOR THE SHARING OF THE KNOWLEDGE OWNED BY THE HOTEL EMPLOYEES   | 5,91             |
| Question 16               | Reporting and the sharings of the information acquired by the employees of the hotel.   | 5,66             |
| Question 27               | Hotel employees to be eager for the sharing of the information possessed by them.   | 5,45             |
| Question 40               |   | 5,87             |
| Question 43               | Hotel to have strategical definitions such as mission, vision and basic values being adopted by the entire employees of the hotel.                | 6,66             |
| group 11                  | THE IMPORTANCE GIVEN BY THE HOTEL MANAGEMENT FOR THE OCCURANCES OF THE NEW IDEAS  | 5,81             |
| Question 6                | Supporting to be provided by the hotel management for the continuous occurance of the new ideas.  | 5,81             |
| group 14                  | SHARING OF THE RESOURCES  | 5,04             |
| Question 19               |   | 5,40             |
| group 3                   | KNOWLEDGE CONTAINED BY THE INFORMATION SYSTEM AND THE IMPORTANCE OF THIS ON THE HOTEL EMPLOYEES   | 5,39             |
| Question 37               | Renovations of system and processes of the organization, full support for the inventions to be put forward.                                       | 5,62             |
|                           | Easy access to the information contained by the information system.   | 6,02             |
|                           | Having hotel employees not hesitating to state all of their ideas in the hotel openly.  | 5,04             |
|                           | Having an information system to contain the entire information possessed by the employees.  | 4,87             |
| group 7                   | THE EXISTENCE OF AN EFFICIENT BUREAUCTRATIC SYSTEM IN THE ORGANIZATION  | <i>5</i> 01      |
| <b>group 7</b> Question 4 | Having the hotel employees to have their words to say in the determination of their targets.  | <b>5,01</b> 4,77 |
| Question 4                |   | 4,79             |
|                           | The existence of an efficient bureaucratic system in the organization.  | 5,49             |
| Question 30               | The existence of an emotion bareaucture system in the organization.   | 5,77             |
|                           | Organizational capital (average value)  | 5,61             |
|                           | Organizational Capital (average value)  | 3,01             |

## 2.2.6 Informing the Employees and its Importance for the Solution of Customer Problems

In the result of the survet carried out and in the conclusion of the question averages which we divided into 14 groups, it is required that either newly employed personnel or the experienced qualified personnel should pass through the orientation process taking place in the collected questions with the highest value in 12 groups by having the average of 6,12 and this is a process accelerating the adaptation processes of the employees for the work performed by them and at the same time, it is the required process for the experienced prosonnel to refresh their knowledges and in the result of this, it is shown that when the hotel employees have broad information about the hotel and the functions of its depertments and its targets, the time period spent for the settlements of the customers' problems has been remediated during the last few years.

Question 48) The improvement of the time period spent for the solutions of the customers' problems with a big rate in the last few years.

Question 17) Hotel Employees to have broad information about the functions of the hotel and its departments and targets.

#### 2.2.7 Importance Given to the Ideas of the Hotel Employees

Our third group is the fifth group with its 6,01 average and in the result of the replies collected here, importance has been given to the components like having the applications of most of the occured new ideas in the organization and the encouragement for the establishment and the improvement of the communication system to be activated between the different departments of the hotel. We have stated that there should be strategical definitions for the hotel employees to have confidence in the company they work and in this group, in addition to this, we see that there is the requirement for the hotel to be determinant and defined quality targets.

Question 33) Having the application of the majority of important ones of the new ideas formed in the organization.

Question 05) Encouragement and the development of the hotel management for the esteblishment of communications between the different departments in the hotel.

Question 41) Hotel to have determinant and defined quality targets.

# 2.2.8 The Value of Information System for the Sharing of the Knowledge Owned by the Hotel Employees

It has been stated in the 4th group with its 5,91 average and taking place in the fourth row that at first there there is the requirement for the strategical definitions like mission, vision and basic values being adopted by the entire employees of the hotel. These kinds of strategical definitions will cause the employees to have confidence in the company they work and consequently will have the result of having them working more productive. Another important topic to be emphasized is to support the accesses of everyone to the information and knowledge in every topic without having prerequisites and the employees must be eager to share and the information possessed by them.

Question 16) Reporting and the sharings of the information acquired by the employees of the hotel.

Question 27) Hotel employees to be eager for the sharing of the information possessed by them.

Question 40) Supporting of the information system to reach to the information and knowledge existing in the hotel by everyone and without having prerequisites

Question 43) Hotel to have strategical definitions such as mission, vision and basic values being adapted by the entire employees of the hotel.

## 2.2.9 The Importance Given by the Hotel Management for the Occurances of the New Ideas

11th group takes place in the seventh position in the result of 5,81 average and it puts forward the requirement for the need of the hotel management continuously to support the occurances of the new ideas.

Question 06) Supporting to be provided by the hotel management for the continuous occurance of the new ideas.

#### 2.2.10 Sharing of the Resources

14th group takes place in the tenth position in the result of 5,04 average and it puts forward the requirement for the hotel employees to be eager to hare all of their sources with the other employees in the hotel.

Question 19) Eargernesses of the hotel employees to share all of their sources with the other employees.

# 2.2.11 Knowledge Contained by the Information System and the Importance of this on the Hotel Employees

3rd group takes place in the eleventh row with its 5,39 average and it puts forward the importance of information with the questions contained it and it has been thought that there is the requirement for the information system to have all of the information acquired by the employees and also there is the requirement of easy access to these information. The employees of the hotel have stated that they should not hesitate to openly say all of their ideas and they have also stated that the renovations of the system and processes of the organization and can be formed by the full support of the innovation to be put forward.

Question 37) Renovations of system and processes of the organization, full support for the inventions to be put forward.

Question 36) Easy access to the information contained by the information system.

Question 20) Having hotel employees not hesitation to state all of their ideas in the hotel openly.

Question 42) Having an information system to contain the entire information possessed by the employees.

#### 2.2.12 The Existence of an Efficient Bureaucratic Systam in the Organization

7<sup>th</sup> group has the lowest average result as 5,01 the results related to the existence of an efficient bureaucratic system and the employees of this organization must have their words to say for the determination of their own targets and being based on this, they should reach conclusions by applying the information possessed in the activity area to the problems and opportunities taking place in a different activity area have been collected in this group. Having the employees of the region not being able to work in an efficient bureaucratic system causes them not to share the information possessed by them. The underlying of this reason is sourced because of the management systems of the hotels taking place in the region as they contain individual management system instead of the corporate management system.

Question 04) Having the hotel employees to have their words to say in the determination of their targets.

Question 21) Hotel employees to reach the conclusion by applying their knowledges of their activity areas to the problems and opportunities taking place in a different activity area.

Question 38) The existence of an efficient bureaucratic system in the organization.

#### 2.2.13 Factor Analysis and Evaluation of Relationship Capital

In the result of the factor analysis related to the Relationship capital, the total of 4 group of questions as 6, 9, 2, and 1 from the collected 14 groups and the question taking place in these groups are shown in Table 2.15 of below.

Table:2.15: The Averages of the Questions and Standard Deviations taking place in the Relationship capital and contained by that Group.

|            | Relationship Capital-sub-categories   | Mean |
|------------|---|------|
| group 6    | THE REASONS OF THE INCREASE IN THE MARKET SHARE   | 6,04 |
| Question50 | Hotel to have the highest customer attraction potential in the region.  | 6,11 |
| Question49 | Continuous increase of the market share during the last few years.  | 5,98 |
| group 9    | UNDERSTANDING OF THE HOTEL EMPLOYEES FOR THE TARGET GROUP OF THE HOTEL  | 5,72 |
| Question58 | General understanding of the targeted market sections and the customer profiles by the majority of the hotal employees.   | 5,96 |
| Question 8 | Having the hotel employees to be intelligent and creative in general.   | 5,49 |
| group 2    | ACTIVITIES TO BE THE SPONSOR AND THEIR REFLECTIONS ON THE INFORMATION SYSTEM  | 5,08 |
| Question62 | Sponsorship of the hotel to various communal activities.  | 2,89 |
| Question45 | Having the highest rate in the region for the investment made on the information system with its proportion to the total income.  | 4,57 |
| Question61 | Promoting the participations of the hotel employees to the communal activities which are not sponsored by the hotel.  | 3,04 |
| Question22 | Having the highest rate in the region for the training hours and training expenditures per employee.  | 4,04 |
| Question57 | Circulation of the entire customer feedbacks to all of the units and the employees taking place in the organization.  | 5,66 |
| Question03 | Implementation of new business development ideas by the hotel managers to be achieved on the specified time and with the specified quality.  Having the efficient backup system in order not to have the hotel to encounter with difficulty in the event of having one or a few of the key personnel quit the | 6,09 |
| Question14 | employment unexpectedly.  | 5,00 |
| Question46 | Continuous updatings of the hotel's data (information) base.  | 4,77 |
| Question30 | Continuous impovement of the hotel's income/cost rate.  | 5,51 |
| Question26 | Hotel employees to be satisfied with the possibilities presented to them for their improvements.  | 5,79 |
| Question39 | Supporting of the employees to be provided by the organization culture and atmosphere and the satisfaction of the same.   | 5,81 |
| Question13 | Organization to have comprehensive and efficient fees management system in order to retain the employees.   | 5,72 |
| Question35 | Hotel to be rapid and productive in every topic.  | 5,96 |
| Question31 | Continuous increase of the income rate per customer during the last few years.  | 5,32 |
| Question24 | Having the lowest rate of personnel change in the region.   | 4,40 |
| Question47 | Satisfaction by the majority of the customers from the hotel and its application.   | 6,66 |

|            | Relationship Capital-sub-categories   | Mean |
|------------|---|------|
| group1     | REQUIRED WORKS FOR THE INCREASE OF CUSTOMER SATISFACTION  | 5,04 |
| Question52 | Providing the services to the customers having the most efficient added value in the region.  | 5,17 |
| Question64 | Taking coercive measures in all of the processes of the organization in the topic of environmental protection.  | 5,06 |
| Question51 | Having prolonged relationships with the customer.   | 5,02 |
| Question59 | Giving importance to what the customer thinks or what the customer wants as the whole organization.   | 5,57 |
| Question53 | Hotel to have the best customer adherence (loyalty) in the region.  | 5,68 |
| Question65 | Clear reportings to the hotel owners (share owners) of the entire information related to the hotel.   | 6,32 |
| Question60 | Taking continuous benefit of the customers' requests and needs in order to satisfy the customers.   | 5,61 |
| Question25 | Managers to have the total experiences (year) in the business life of the personnel to be more than the other hotels taking place in the region.  | 4,36 |
| Question11 | Hotel employees to have high perfection related to their business areas.  | 4,66 |
| Question67 | Hotel to have the leader brand in the sector.   | 5,34 |
| Question12 | Having the personnel selection system to aim for the employment of the best candidates taking place in the region.  | 5,45 |
| Question32 | Having the rate of income per customer to be the highest one in the region.   | 3,55 |
| Question55 | Having the entire units of the hotel to be market focused (Market focused/customer focused).  | 4,17 |
| Question34 | Having the hotel to develope new ideas and products more than the other hotels taking place in the region.  | 5,26 |
| Question54 | Having the customers in the region to select us instead of the competitors during the last few years.   | 6,30 |
| Question63 | Sharing almost all of the information and the knowledge of the hotel with the suppliers.  | 4,45 |
| Question29 | Continuous impovement of the time period passing in order to complete a business process during the last few years.   | 3,64 |
| Question66 | Hotel to have best image within the sector.   | 6,21 |
| Question28 | Having the lowest rate of the region for the costs for the implementation of the business within the organization.  | 3,49 |
| Question07 | When one of the hotel employees feels that he/she has the requirement to develope his/her skills and training, the management should provide this support to him/her completely and on timely manner. | 5,49 |
|            | Relationship Capital (average value)  | 5,47 |

#### 2.2.14 The Reasons of the Increase in the Market Share

Our 6th group is the second highest group with 6,04 average and the results like having the hotels with the highest potential for the attractions of the customers and the continuous increase of the market share in the region during the last few years have been achieved.

Question 50) Hotel to have the highest customer attraction potential in the region.

Question 49) Continuous increase of the market share during the last few years.

#### 2.2.15 Understanding of the Hotel Employees for the Target Group of the Hotel

9th group takes place in the ninth row with 5,72 average and it has been emphasized that hotel employees must be more productive for the hotels they work they must be intelligent and creative to enable them to provide the services with the desired quality and at the same time the majority of hotel employees must gerenerally understand the targeted market sections and the customer profiles.

Question 58) General understanding of the targeted market sections and the customer profiles by the majority of the hotal employees.

Question 08) Having the hotel employees to be intelligent and creative in general.

#### 2.2.16 Activities to be the Sponsor and their Reflections of the Information System

In the result of the question collected in the 2nd group; our group takes place in the twelfth row with 5,08 average and the activities to be sponsor or the encouragement of the participations of the hotel employees to the communal activities which are not sopnsored by have been explained. Another component of achieving the quality in the region is information and it is increasing importance with every passing day. As the result of this, the hotels have decided that the proportion of the investment made in their information systems to the total incomes can be possible by having this higher than the other companies taking place in the region and with the continuous updatings of the data (information) base. Another important component is the requirement to have a

comprehensive and efficient fee system in order to retain the employees of the organization and this culture and atmosphere must support and satisfy the employees and the implementation of this can be accomplished by believing in the increase of training hours and training expenditures per employee. Another important topic for the customers to be satisfied with the hotel and its applications is to keep the rate of personnel changings at the lowest level and the requirement to have an efficient back-up system not to encounter with difficult in the event of one or a few of the key personnel quit the employment unexpectedly.

Question 62) Sponsorship of the hotel to various communal activities.

Question 45) Having the highest rate in the region for the investment made on the information system with its proportion to the total income.

Question 61) Promoting the participations of the hotel employees to the communal activities which are not sponsored by the hotel.

Question 22) Having the highest rate in the region for the training hours and training expenditures per employee.

Question 57) Circulation of the entire customer feedbacks to all of the units and the employees taking place in the organization.

Question 03) Implementation of new business development ideas by the hotel managers to be achieved on the specified time and with the specified quality.

Question 14) Having the efficient backup system in order not to have the hotel to encounter with difficulty in the event of having one or a few of the key personnel quit the employment unexpectedly.

Question 46) Continuous updatings of the hotel's data (information) base.

Question 30) Continuous impovement of the hotel's income/cost rate.

Question 26) Hotel employees to be satisfied with the possibilities presented to them for their improvements.

Question 39) Supporting of the employees to be provided by the organization culture and atmosphere and the satisfaction of the same.

Question 13) Organization to have comprehensive and efficient fees management system in order to retain the employees.

Question 35) Hotel to be rapid and productive in every topic.

Question 31) Continuous increase of the income rate per customer during the last few years.

Question 24) Having the lowest rate of personnel change in the region.

Question 47) Satisfaction by the majority of the customers from the hotel and its application.

#### 2.2.17 Required Works to be done in order to increase the Customer Satisfaction

In the result of the questions takin place in the 1st group as the second lowest group with the average of 5,04; giving importance to what the customers thing and what they want, to have prolonged relationships with the customers, having the continuous benefits from the requests and needs in order to satisfy the customers and the selections made by the customers for these companies instead of the other ones taking place in the region during the last few years have neem shown as the reason. When the companies feel the sensitivity for the selection of the employees on the basis of customer satisfaction and the requirement for one of the hotel employees to develope his/her skills and training, the management must provide it's support to him/her on a timely manner and they have explained that having the leader brand in the sector by the companies was in the result of these. As the result of the replies given to the questions taking place in this group, they have explained that the customer satisfaction was based on the service provided by them and this was followed by the quality of the personnel employed by them and the trainings given to them.

Question 52) Providing the services to the customers having the most efficient added value in the region.

Question 64) Taking coercive measures in all of the processes of the organization in the topic of environmental protection.

Question 51) Having prolonged relationships with the customer.

Question 59) Giving importance to what the customer thinks or what the customer wants as the whole organization.

Question 53) Hotel to have the best customer adherence (loyalty) in the region.

Question 65) Clear reportings to the hotel owners (share owners) of the entire information related to the hotel.

Question 60) Taking continuous benefit of the customers' requests and needs in order to satisfy the customers.

Question 25) Managers to have the total experiences (year) in the business life of the personnel to be more than the other hotels taking place in the region.

Question 11) Hotel employees to have high perfection related to their business areas.

Question 67) Hotel to have the leader brand in the sector.

Question 12) Having the personnel selection system to aim for the employment of the best candidates taking place in the region.

Question 32) Having the rate of income per customer to be the highest one in the region.

Question 55) Having the entire units of the hotel to be market focused (Market focused/customer focused).

Question 34) Having the hotel to develope new ideas and products more than the other hotels taking place in the region.

Question 54) Having the customers in the region to select us instead of the competitors during the last few years.

Question 63) Sharing almost all of the information and the knowledge of the hotel with the suppliers.

Question 29) Continuous impovement of the time period passing in order to complete a buriness process during the last few year

Question 66) Hotel to have best image within the sector.

Question 28) Having the lowest rate of the region for the costs for the implementation of the business within the organization.

Question 07) When one of the hotel employees feels that he/she has the requirement to develope his/her skills and training, the management should provide this support to him/her completely and on timely manner.

## 2.3 ANOVA and T-Test Results Applied on Intellectual Capital Survey

The application was conducted in two combined groups as the management forms of the accommodation facilities and their stars in the results of ANOVA test and T-Test carried out in the result of it and in the results of the intellectual capital survey. One of them is the management section which has been collected as the groups of strategical management, tactical management and operational management and the other one is the starts section of the hotels which are collected in three gorups as the ones with no star and two star hotels, three star hotels and finally the hotels with four and five stars.

First, we applied ANOVA test to the data taking place in the second section of our Intellectual Capital Survey having 67 questions. In order the compare the point of views of the managers acquired by the accommodation facilities for their managements, in the result of the test applied on the data, the values of the question numbers 8, 11, 14, 18, 22, 25, 30, 31, 38, 51, 52, 53, 54, 55, 57, 59, 64 and 65 are below 0,05 and the other questions are over our vlue of 0,05. Question numbers of 11, 25, 51, 52, 53, 54, 55, 59, 64 and 65 from these questions take place in the first group collected under the heading of "Required works in order to increase the Customer Satifaction".

In the result of our T-Test's ANOVA test we applied on the date of the questions of 11, 25, 51, 52, 53, 54, 55, 59, 64 and 65 taking place in the first group. The below stated values have been found by naming the first section of ANOVA test as strategical management, second section as the tectical management and the third one as the operational management and then by numbering these as 1, 2 and 3 respectively.

**Table:2.16:** Average value Table showing the differences of the managers possessed by the Accommodation Facilities for the managements of their Companies.

|   |      |      |      |      |      |      |      |      |      | 65   |
|---|------|------|------|------|------|------|------|------|------|------|
| 1 | 4,17 | 3,72 | 4,67 | 4,61 | 5,44 | 6,22 | 3,61 | 5,33 | 4,61 | 6,22 |
| 2 | 5,29 | 5,24 | 5,71 | 5,95 | 6,19 | 6,57 | 4,90 | 5,90 | 5,86 | 6,67 |
| 3 |      | 3,50 | 4,00 | 4,38 | 4,88 | 5,75 | 3,50 | 5,25 | 4,00 | 5,63 |

First we applied our T-Test on the values of strategical management and tactical management taking place in 1st and 2nd group.

Ho= There is no difference for the perceiving of the questions between the managers taking place in the strategical and tactical management.

H1= There is difference for the perceiving of the questions between the managers taking place in the strategical and tactical management.

As seen in the Appendix, because of having the value of 0.012<0.05, zero hypothesis is refused. In the result of this, the required works to increase the customer satisfaction also show difference in the comments given to the strategical management and tactical management.

We applied the second application of our T-Test on the strategical management and operational management taking place in the 1st and 3rd group.

Ho= There is no difference for the perceiving of the questions between the managers taking place in the strategical management and operational management.

H1= There is difference for the perceiving of the questions between the managers taking place in the strategical management and operational management.

As seen in the Appendix, because of having the value of 0.375>0.05, we accepted Ho=. In the result of this, hotel managers have made the same comment for the required works to increase the customer satisfaction in the topics of strategical management and tactical management.

In the third part of our T-Test, we applied the data on the strategical management and operational management taking place in the 2nd and 3rd group

Ho= There is no difference for the perceiving of the questions between the managers taking place in the tactical management and operational management.

H1= There is difference for the perceiving of the questions between the managers taking place in the tactical management and operational management.

As seen in the Appendix, because of having the value of 0.01<0.05, we refused Ho=. In the result of this, hotel managers have made different comments for the required works to increase the customer satisfaction in the topics of strategical management and tactical management.

In the result of ANOVA applied on the data of 67 questions taking place in the second section of the intellectual capital survey carried out to examine the star values of the accommodation facilities in the second section of the test, the questions of 30, 47, 51, 52, 53 and 62 take place under the value of 0.05 and the other questions take place over the value of 0.05. In this section, below stated values have been found by giving the numbers of 2, 3 and 4 to the hotels having starts respectively having no star and two stars, three star hotels and four and five star hotels.

**Table:2.17:** Average Table showing the rates of the stars owned by the Accommodation Facilities.

|   | 30   | 47   | 51   | 52   | 53   | 62   |  |
|---|------|------|------|------|------|------|--|
| 2 | 6,38 | 7,00 | 4,13 | 4,13 | 5,00 | 2,75 |  |
| 3 | 4,83 | 6,45 | 5,41 | 5,55 | 6,00 | 2,48 |  |
| 4 | 6,80 | 7,00 | 4,60 | 4,90 | 5,30 | 4,20 |  |

In the result of ANOVA test, the hotels with 4 and 5 stars have given the highest value to our question of "Continuous impovement of income/cost rate in the Hotel" and as the reason of this is sourced by having either the extra bed capacity or by having high quality of customers.

Hotels having no star and with two stars as well as the hotels with 4 and 5 stars have provided the highest value to our question of 47: "Satisfaction by the majority of the customers from the hotel and its application". The reason of this is because of the

understanding for the service according to the expectations of the customers or it is sourced by the high quality service understanding provided by four and five star hotels.

Hotels with three stars have given the highest rate to our 51th question of: "having prolonged relationship with the customer". It should be appreciated that the hotels with this class assume the biggest role in Black Sea Region because these hotels have to give high quality services because of the stars owned by them and at the same time, they have to provide services based on customer expectations just like in the hotels having no star and this situation provides prolonged relationships with the customers in the region.

The highest value to our 52th question of "Providing the services to the customers having the most efficient added value in the region" has been given by three star hotels which provide services based on the customer expectations.

Having the highest value to our 53rd question of "Hotel to have the best customer adherence (loyalty) in the region" is the result of the above explained reasons.

Our 62nd question was "the sponsorship of the hotel to various commmunal activities". The highest value for this takes place in the 4th category which we shared for the hotels having four and five stars. The reson of this is because of the financial capabilities of these hotels for the sponsorship when compared with the other hotels and these hotels are more preferred because of the starts they have.

#### 3.CONCLUSION

Even though tourism sector in East Black Sea region does not achieve the improvement as desired it is seen that there ie more efficiency in the topics of structuring and using of the intellectual capital. As the phenomenon of tourism has not settled in the region completely, it is seen that the units forming the sector are not fully in the status of to be able to serve for tourism and the quality level of the provided services are not too high. As the services tried to provided in East Black Sea Region are based on the expectations of the customers, the using of the intellectual property has more active role. The reason of this to be this way, in order to respond to the expectations of the customers it is required that the customers must be known, the customer must be observed and the demand and complaints of the customer must be listened to and the renovations of the services must be accomplished in this direction.

As a result of the replies given to Intellectual Capital Survey performed in the tourism sector taking place in East Black Sea, 12th group has got the highest average of the questions collected in 14 groups with 6.12 and by containing the question numbers 48 and 17. The questions of "having big rate of impovement in the time period time spent for the solution of the customer problems during the last five year" and "hotel employees to have broad knowledge about the functions of the hotel and its departments and its targets" are the questions having the highest points by the managers and the employees who replied the survey. As a result of this, it is seen that the importance given to the importance is getting increased with every passing day and having the personnel working in tourism sector of this region to have desires to learn about the functions of the departments they work and about the targets show the value given to the customer and the improvement provided in the quality of the service in the result of this.

Even though it is very amateurish, almost every sector unit in East Black Sea Region has its own customer portfolio and it is seen that communication methods have been developed in order to maintain this portfolio. Intellectual capital must definetely be used in one area of the entire presented services and at the point of the provision of the

satisfaction. Even though the using of this show differences from one enterprise to the other, it can not be mentioned that this is a very organized using. Main target is to reach the customer, to bring the customer in the enterprise and then to provide the customer leave the enterprise being satisfied. This has to be done within the existing possibilities. Because, it is seen that most of the enterprises abstain from the investment unless they really have to do it and they can not create the diversities in the service products. The reason of this is because of having small scaled enterprises in the sector and consequently not being so profitable. Free of charge activities provided to the customer by a hotel having 1000 beds wil not be the same of the free of charge activities provided by a hotel having only 100 beds. In this circumsance, the hotel having 100 beds tries to fulfill its deficiencies with the other ways. As a matter of fact, this types of hotels try to compensate the major part of this deficiency with the intellectual capital by not being aware. In reality, having the application in such a way is a correct behaviour. Because, the enterprises have survived this way and they have been relatively productive and they have also shown the efforts to be existent in the future.

In conclusion, the application of the intellectual capital in tourism sector taking place in East Black Sea Region is accomplished in a way not to be so professional when compared with the applications of the regions having more intensive tourism, however it can be said that this conscious has been settled in this region in a correct way. In other words, East Black Sea Region Tourism Sector has the willingness to apply the intellectual capital, however the only issue for the region is not being able to get enough share from tousim and not being able to make the publicity adequately and in the result of these factors, not being able to improve and diversify itself as desired. It will be a correct determination to state that the quality of the service provided in the region will increase with profitablity and for this reason, there is an important role to be assumed by the state and by the investors and most importantly, by the accommodation facilities providing services in the region. If every unit does its share of duty in the best way and if the accommodation facilities do the required works in order to raise the quality of the provided services and when the employment is provided for the new investments, I believe that East Black Sea Region will become one of the special regions of our

country and the world to provide services to tourism sector within 10 years with its unique beauties.

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**APPENDICES** 

## **APPENDIX A- Survey**

#### **Intellectual Capital Survey in the Accommodation Facilities**

### **General Information Related to the Survey:**

Below seen survey interrogates which intellectual capital factors have the affect on the success of the tourism companies taking place in Black Sea. The survey is consisted of two sections. In the first section, the information about the person filling the survey and ut his/her hotel is questioned. In the second section, the 11 inte col

#### 1st

| ellectual capital factors. Obtained data will definetely be maintained in ful nfidentiality.              |
|---|
| t SECTION:  |
| ese fill in the blank spaces and reply by placing the marking of 'X' which you think i propriate for you. |
| 1) Your Name and Surname:   |
| 2) Your Business Title:   |
| 3) Your Total Experience in the Business Life (year):   |
| 4) The Name of the Company You Work for:  |
| 5) Number of Stars of Your Hotel:  No Star ()  ** ()  *** ()  *** ()  **** ()                             |
| 6) Total Number of Employees in the Hotel You Work:   |
| Between 0-15 () Between 15-30 () Between 30-50 () Between 50-100 () More than 100 ()                      |
| 7) Your Bed Capacity:   |
| 8) The Percentage of the Tourists Accommodated in Your Hotel within One year:                             |
| Domestic Tourist % () Foreign Tourist % ()  |
|   |

#### 2nd SECTION:

Which ones of the below specified 67 indications you think to have positive contributions to your company in order to catch high quality and to raise the customer satisfaction to the highest level in your accommodation facility.

After reading this question, please specify the contribution of the relative indication to the customer satisfaction by choosing a scale between 1-7 (1= I definetely do not participate, 4= I am undecided, 7= I completely participate). Please give only one reply to each question.

|    |  |   | inetel<br>icipat | • | I completely<br>Participate |   |   |   |  |
|----|--|---|------------------|---|-----------------------------|---|---|---|--|
| 1) | In general, hotel employees to have competence levels with the desired (ideal) level in order ot reach the success   | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 2) | Hotel managers to have ''leadership'' competence at top level.   | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 3) | Having the hotel managers to implement<br>new business development ideas on the<br>specified time and in the specified quality.                                | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 4) | Hotel employees to have their own words to say for the determination of their targets.   | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 5) | Encouragement and the development of the hotel management for the establishment of communications between the different departments in the hotel.              | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 6) | Supporting to be provided by the hotel management for the continuous occurance of the new ideas.   | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 7) | Providing full and timely support by the management when one of the hotel employees feel the requirement to develope his/her skills, competences and training. | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |
| 8) | Hotel employees to be generally intelligent and creative.  | 1 | 2                | 3 | 4                           | 5 | 6 | 7 |  |

|   | I definetely do not<br>Participate |   |   |   | I completely<br>Participate |   |   |  |
|---|------------------------------------|---|---|---|-----------------------------|---|---|--|
| 9) Hotel employees to be ''the best'' ones when compared with all of the other hotels taking place in the region.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 10) Having the hotel employees being satisfied with the roles and responsibilities assumed by them in the organization.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 11) Having the hotel employees with high level of perfection for the works they do in their activity areas.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 12) Having the proseonnel selection system targeting to get the best candidates in the region.  | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 13) Organization to have comprehensive and efficient fees management in order to retain the employees.  | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 14) Having the efficient backup system in order not to have the hotel to encounter with difficulty in the event of having one or a few of the key personnel quit the employment unexpectedly. | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 15) Having the Hotel Employees to do their jobs all of the time by thinking and by making superior efforts.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 16) Sharings and reportings of the information Acquired by the hotel employees.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 17) Hotel Employees to have broad information about the functions of the hotel and its departments and targets.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 18) Hotel employees to take the suitable Risks in order to echieve the purposes.  | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |
| 19) Eargernesses of the hotel employees to share all of their sources with the other employees.   | 1                                  | 2 | 3 | 4 | 5                           | 6 | 7 |  |

|  | I definetely do not<br>Participate |   |   | I completely<br>Participate |   |   |   |
|--|------------------------------------|---|---|-----------------------------|---|---|---|
| 20) Having hotel employees not hesitating to state all of their ideas in the hotel openly  | <b>1</b><br>y.                     | 2 | 3 | 4                           | 5 | 6 | 7 |
| 21) Hotel employees to reach the conclusion<br>by applying their knowledges of their<br>activity areas to the problems and opportu<br>taking place in a different activity area. | 1<br>nities                        | 2 | 3 | 4                           | 5 | 6 | 7 |
| 22) Having the highest rate in the region for the training hours and training expenditures per employee.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 23) Having the highest rate employees with the post-graduate and doctorate diplomas in the region.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 24) Having the lowest rate of personnel change in the region.  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 25) Managers to have the total experiences (year) in the business life of the personnel to be more than the other hotels taking place in the region.                             | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 26) Hotel employees to be satisfied with the possibilities presented to them for their improvements.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 27) Hotel employees to be eager for the sharing of the information possessed by them.  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 28) Having the lowest rate of the region for the costs for the implementation of the business within the organization.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 29) Continuous impovement of the time period passing in order to complete a business process during the last few years.  | d 1                                | 2 | 3 | 4                           | 5 | 6 | 7 |
| 30) Continuous impovement of the hotel's income/cost rate.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 31) Continuous increase of the income rate per customer during the last few years  | <b>1</b> S.                        | 2 | 3 | 4                           | 5 | 6 | 7 |

|  |           | efinet<br>Partici | - | I completely<br>Participate |   |   |   |
|--|-----------|-------------------|---|-----------------------------|---|---|---|
| 32) Having the rate of income per customer to be the highest one in the region.  | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 33) Having the application of the majority of important ones of the new ideas formed in the organization.  | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 34) Having the hotel to develope new ideas and products more than the other hotels taking place in the region.   | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 35) Hotel to be rapid and productive in every topic.   | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 36) Easy access to the information contained by the information system.  | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 37) Renovations of system and processes of the organization, full support for the inventions to be put forward.  | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 38) Existence of efficient bureautratic system in the organization.  | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 39) Supporting of the employees to be provided by the organization culture and atmosphere and the satisfaction of the same                             | 1<br>e.   | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 40) Supporting of the information system to reach to the information and knowledge existing in the hotel by everyone and without having prerequisites. | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 41) Hotel to have determinant and defined quality targets.   | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 42) Having an information system to contain the entire information possessed by the employees.   | 1         | 2                 | 3 | 4                           | 5 | 6 | 7 |
| 43) Hotel to have strategical definitions such as mission, vision and basic values being adopted by the entire employees of the hot                    | 1<br>cel. | 2                 | 3 | 4                           | 5 | 6 | 7 |

|  |          | I definetely do not<br>Participate |   |   | I completely<br>Participate |   |   |  |
|--|----------|------------------------------------|---|---|-----------------------------|---|---|--|
| 44) Having the rate of customer satisfacton to be the highest one in the sector.   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 45) Having the highest rate in the region for the investment made on the information system with its proportion to the total incomparison.     | 1<br>me. | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 46) Continuous updatings of Hotel's data (information) base.   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 47) Satisfactions of the majority of the customers by the Hotel and its applications   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 48) Impovement of the time period spent substantially during last few years to solve the problems of the customers.                            | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 49) Continuous increase of the market share during the last few years.   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 50) Hotel to have the highest attraction in the region to draw the customers.  | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 51) Having prolonged relationships with the customers.   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 52) Providing the most efficient value added services to the customers in the region.  | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 53) Hotel to have the best customer loyalty (devotion) in the region.  | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 54) Customers in the region selecting us during the last few years instead of rivals.  | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 55) Having the entire units of the hotel to be market focused (Market focused/customer focused).   | 1        | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |
| 56) Establishing continuous communications with the customers and the collections of the information in order to find what they a looking for. | 1<br>are | 2                                  | 3 | 4 | 5                           | 6 | 7 |  |

|  | I definetely do not<br>Participate |   |   | I completely<br>Participate |   |   |   |
|--|------------------------------------|---|---|-----------------------------|---|---|---|
| 57) Expansion of the customers' feedback data to all of the departments and employees in the organization.                 | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 58) Understandings of the Hotel Employees With majority for the targeted market sections and customer profiles in general. | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 59) Giving importance by the entire Organization about what the customers think and want.                                  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 60) Continuous utilization of customers' requests an needs in order satisfy the customers.                                 | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 61) Promoting the employees for their participations in the communal activities which are not sponsored by the Hotel.      | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 62) Sponsorship of the Hotel in various communal activities.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 63) Sharing almost all the information and knowledge of the supplier and the Hotel.  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 64) Taking compulsory measures in all of the processes of the organization for the topic of environmental protection.      | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 65) Reportings of the entire information related to the Hotel to the Hotel Owners (share owners) clearly.                  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 66) Hotel to have the Best image in the sectyor.   | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |
| 67) Hotel to have the leader brand in the sector.  | 1                                  | 2 | 3 | 4                           | 5 | 6 | 7 |

## WE THANK YOU FOR REPLYING THE SURVEY

## APPENDIX B

**Table: B.1 - The Names of the Companies replied Intellectual Capital Survey** 

| Companies Participated in the Survey |   | RATE % | Number of Persons |
|--------------------------------------|---|--------|-------------------|
| AKSULAR HOTEL                        | 3 | 10,64  | 5                 |
| BALIKTAŞI HOTEL                      | 3 | 6,38   | 3                 |
| BELDE HOTEL                          | 3 | 12,77  | 6                 |
| CİHAN HOTEL                          | 2 | 2,13   | 1                 |
| COŞANDERE TURİSTİK TESİSLERİ         | 0 | 2,13   | 1                 |
| DEDEMAN                              | 4 | 2,13   | 1                 |
| GARDEN YALÇIN RESORT&HOTEL           | 4 | 8,52   | 4                 |
| GRAND ÇAVUŞOĞLU HOTEL                | 4 | 2,13   | 1                 |
| GRAND HOTEL TESK                     | 3 | 2,13   | 1                 |
| HORON HOTEL                          | 3 | 2,13   | 1                 |
| İNAN KARDEŞLER                       | 0 | 4,26   | 2                 |
| KİT-TOUR HOTEL                       | 3 | 4,26   | 2                 |
| NAZAR HOTEL TRABZON                  | 0 | 2,13   | 1                 |
| HOTEL KELEŞ                          | 3 | 2,13   | 1                 |
| HOTEL TRABZON CLASS                  | 2 | 2,13   | 1                 |
| SAYLAMLAR                            | 4 | 4,26   | 2                 |
| SEÇİLYA HOTEL                        | 3 | 2,13   | 1                 |
| SİS HOTEL                            | 0 | 2,13   | 1                 |
| UZUNKUM HOTEL                        | 3 | 2,13   | 1                 |
| ZARHA MOUNTAIN RESORT                | 3 | 14,89  | 7                 |
| ZİTAŞ                                | 0 | 2,13   | 1                 |
| ZORLU GRAND HOTEL                    | 5 | 6,38   | 3                 |

## **APPENDIX C**

Table: C.1 - Anova Test for Views of Strategical, Tactical and Operational Levels of Hotel Organization

|              |                   | Sum of  |    | Mean   | _     |      |
|--------------|-------------------|---------|----|--------|-------|------|
|              |                   | Squares | df | Square | F     | Sig. |
| VAR000<br>01 | Between<br>Groups | ,829    | 2  | ,414   | ,706  | ,499 |
|              | Within<br>Groups  | 25,810  | 44 | ,587   |       |      |
|              | Total             | 26,638  | 46 |        |       |      |
| VAR000<br>02 | Between<br>Groups | ,067    | 2  | ,033   | ,082  | ,922 |
|              | Within<br>Groups  | 17,891  | 44 | ,407   |       |      |
|              | Total             | 17,957  | 46 |        |       |      |
| VAR000<br>03 | Between<br>Groups | 1,475   | 2  | ,738   | 1,785 | ,180 |
|              | Within<br>Groups  | 18,185  | 44 | ,413   |       |      |
|              | Total             | 19,660  | 46 |        |       |      |
| VAR000<br>04 | Between<br>Groups | ,130    | 2  | ,065   | ,040  | ,961 |
|              | Within<br>Groups  | 72,296  | 44 | 1,643  |       |      |
|              | Total             | 72,426  | 46 |        |       |      |
| VAR000<br>05 | Between<br>Groups | ,103    | 2  | ,052   | ,076  | ,927 |
|              | Within<br>Groups  | 29,897  | 44 | ,679   |       |      |
|              | Total             | 30,000  | 46 |        |       |      |
| VAR000<br>06 | Between<br>Groups | 1,235   | 2  | ,617   | ,754  | ,477 |
|              | Within<br>Groups  | 36,042  | 44 | ,819   |       |      |
|              | Total             | 37,277  | 46 |        |       |      |
| VAR000<br>07 | Between<br>Groups | 4,181   | 2  | 2,091  | 2,449 | ,098 |
|              | Within<br>Groups  | 37,563  | 44 | ,854   |       |      |
|              | Total             | 41,745  | 46 |        |       |      |
| VAR000<br>08 | Between<br>Groups | 5,132   | 2  | 2,566  | 3,688 | ,033 |
|              | Within<br>Groups  | 30,613  | 44 | ,696   |       |      |
|              | Total             | 35,745  | 46 |        |       |      |

| VAR000<br>09 | Between<br>Groups | 2,648   | 2  | 1,324  | 2,035 | ,143  |
|--------------|-------------------|---------|----|--------|-------|-------|
|              | Within            | 28,629  | 44 | ,651   |       |       |
|              | Groups<br>Total   | 31,277  | 46 | ,      |       |       |
| VAR000       | Between           | ,154    | 2  | ,077   | ,109  | ,897  |
| 10           | Groups            | , 134   | ۷  | ,077   | , 109 | ,091  |
|              | Within<br>Groups  | 30,952  | 44 | ,703   |       |       |
|              | Total             | 31,106  | 46 |        |       |       |
| VAR000       | Between           | 14,892  | 2  | 7,446  | 6,106 | ,005  |
| 11           | Groups<br>Within  | ,       | _  | ,,,,,  | 0,100 | ,,,,, |
|              | Groups            | 53,661  | 44 | 1,220  |       |       |
|              | Total             | 68,553  | 46 |        |       |       |
| VAR000       | Between           | 6,956   | 2  | 3,478  | 2,609 | ,085  |
| 12           | Groups<br>Within  | ,,,,,,  | _  | ,,,,   | _,,   | ,     |
|              | Groups            | 58,661  | 44 | 1,333  |       |       |
|              | Total             | 65,617  | 46 |        |       |       |
| VAR000       | Between           | 7,085   | 2  | 3,542  | 2,673 | ,080, |
| 13           | Groups<br>Within  | ,,,,,,  | _  | -,     | _,    | ,,,,, |
|              | Groups            | 58,319  | 44 | 1,325  |       |       |
|              | Total             | 65,404  | 46 |        |       |       |
| VAR000       | Between           | 50,054  | 2  | 25,027 | 6,636 | ,003  |
| 14           | Groups<br>Within  | 00,00   | _  | ,      | 2,222 | ,,,,, |
|              | Groups            | 165,946 | 44 | 3,772  |       |       |
|              | Total             | 216,000 | 46 |        |       |       |
| VAR000       | Between           | ,659    | 2  | ,329   | ,664  | ,520  |
| 15           | Groups<br>Within  |         |    | ·      | ·     | ·     |
|              | Groups            | 21,810  | 44 | ,496   |       |       |
|              | Total             | 22,468  | 46 |        |       |       |
| VAR000       | Between           | 1,758   | 2  | ,879   | ,792  | ,459  |
| 16           | Groups<br>Within  |         |    | ·      | ·     | ·     |
|              | Groups            | 48,796  | 44 | 1,109  |       |       |
|              | Total             | 50,553  | 46 |        |       |       |
| VAR000       | Between           | 4,061   | 2  | 2,030  | 1,721 | ,191  |
| 17           | Groups<br>Within  |         |    |        |       |       |
|              | Groups            | 51,897  | 44 | 1,179  |       |       |
|              | Total             | 55,957  | 46 |        |       |       |
| VAR000<br>18 | Between           | 9,356   | 2  | 4,678  | 4,737 | ,014  |
| 10           | Groups<br>Within  | 43,452  | 44 | ,988   |       |       |

|              | Groups            |         |    |        |       | I                                       |
|--------------|-------------------|---------|----|--------|-------|---|
|              | Total             | 52,809  | 46 |        |       |   |
| VAR000<br>19 | Between<br>Groups | 6,333   | 2  | 3,167  | 1,810 | ,176                                    |
|              | Within<br>Groups  | 76,986  | 44 | 1,750  |       |   |
|              | Total             | 83,319  | 46 |        |       |   |
| VAR000<br>20 | Between<br>Groups | ,540    | 2  | ,270   | ,302  | ,741                                    |
|              | Within<br>Groups  | 39,375  | 44 | ,895   |       |   |
|              | Total             | 39,915  | 46 |        |       |   |
| VAR000<br>21 | Between<br>Groups | 1,420   | 2  | ,710   | ,553  | ,579                                    |
|              | Within<br>Groups  | 56,452  | 44 | 1,283  |       |   |
|              | Total             | 57,872  | 46 |        |       |   |
| VAR000       | Between           | 21,851  | 2  | 10,926 | 3,640 | ,034                                    |
| 22           | Groups<br>Within  | ,       |    | ŕ      | 3,313 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
|              | Groups            | 132,063 | 44 | 3,001  |       |   |
|              | Total             | 153,915 | 46 |        |       |   |
| VAR000<br>23 | Between<br>Groups | 3,418   | 2  | 1,709  | ,788  | ,461                                    |
|              | Within<br>Groups  | 95,391  | 44 | 2,168  |       |   |
|              | Total             | 98,809  | 46 |        |       |   |
| VAR000       | Between           | ,206    | 2  | ,103   | ,049  | ,953                                    |
| 24           | Groups            | ,200    | ۷  | , 103  | ,043  | ,900                                    |
|              | Within<br>Groups  | 93,113  | 44 | 2,116  |       |   |
|              | Total             | 93,319  | 46 |        |       |   |
| VAR000<br>25 | Between<br>Groups | 29,430  | 2  | 14,715 | 5,917 | ,005                                    |
|              | Within<br>Groups  | 109,421 | 44 | 2,487  |       |   |
|              | Total             | 138,851 | 46 |        |       |   |
| VAR000       | Between           | 2,815   | 2  | 1,407  | 1,873 | ,166                                    |
| 26           | Groups            | 2,010   | _  | 1,407  | 1,070 | , 100                                   |
|              | Within<br>Groups  | 33,058  | 44 | ,751   |       |   |
|              | Total             | 35,872  | 46 |        |       |   |
| VAR000<br>27 | Between<br>Groups | 4,932   | 2  | 2,466  | 1,914 | ,160                                    |
|              | Within<br>Groups  | 56,685  | 44 | 1,288  |       |   |
|              | Total             | 61,617  | 46 |        |       |   |
| VAR000       | Between           | ,157    | 2  | ,079   | ,035  | ,965                                    |

| 28           | Groups            |         |     |        |       |      |
|--------------|-------------------|---------|-----|--------|-------|------|
|              | Within<br>Groups  | 97,587  | 44  | 2,218  |       |      |
|              | Total             | 97,745  | 46  |        |       |      |
| VAR000       | Between           | ,288    | 2   | ,144   | ,067  | ,935 |
| 29           | Groups<br>Within  | ,200    | _   | ,      | ,001  | ,000 |
|              | Groups            | 94,563  | 44  | 2,149  |       |      |
|              | Total             | 94,851  | 46  |        |       |      |
| VAR000       | Between           | 57,140  | 2   | 28,570 | 7,368 | ,002 |
| 30           | Groups<br>Within  |         |     |        | •     | ,    |
|              | Groups            | 170,605 | 44  | 3,877  |       |      |
|              | Total             | 227,745 | 46  |        |       |      |
| VAR000       | Between           | 49,822  | 2   | 24,911 | 5,697 | ,006 |
| 31           | Groups<br>Within  |         |     | ·      |       | ·    |
|              | Groups            | 192,391 | 44  | 4,373  |       |      |
|              | Total             | 242,213 | 46  |        |       |      |
| VAR000<br>32 | Between           | 8,720   | 2   | 4,360  | 3,050 | ,057 |
| 32           | Groups<br>Within  |         |     |        |       |      |
|              | Groups            | 62,897  | 44  | 1,429  |       |      |
|              | Total             | 71,617  | 46  |        |       |      |
| VAR000<br>33 | Between           | 1,029   | 2   | ,514   | ,547  | ,583 |
| 33           | Groups<br>Within  |         |     |        |       |      |
|              | Groups            | 41,397  | 44  | ,941   |       |      |
| \            | Total             | 42,426  | 46  |        |       |      |
| VAR000<br>34 | Between<br>Groups | 1,293   | 2   | ,647   | ,756  | ,476 |
| 34           | Within            | 07.040  | 4.4 | 0.50   |       |      |
|              | Groups            | 37,643  | 44  | ,856   |       |      |
| \/A D000     | Total             | 38,936  | 46  |        |       |      |
| VAR000<br>35 | Between<br>Groups | ,468    | 2   | ,234   | ,766  | ,471 |
|              | Within            | 40.440  | 4.4 | 200    |       |      |
|              | Groups            | 13,446  | 44  | ,306   |       |      |
| \/A D000     | Total             | 13,915  | 46  |        |       |      |
| VAR000<br>36 | Between<br>Groups | ,207    | 2   | ,103   | ,139  | ,871 |
|              | Within            | 20.770  | 4.4 | 745    |       |      |
|              | Groups            | 32,772  | 44  | ,745   |       |      |
| VAR000       | Total             | 32,979  | 46  |        |       |      |
| 37           | Between<br>Groups | 4,168   | 2   | 2,084  | 2,135 | ,130 |
|              | Within            | 42,938  | 44  | ,976   |       |      |
|              | Groups            | 72,330  | 77  | ,910   |       |      |

|              | Total             | 47,106  | 46  |       |       |       |
|--------------|-------------------|---------|-----|-------|-------|-------|
| VAR000<br>38 | Between<br>Groups | 6,062   | 2   | 3,031 | 3,539 | ,038  |
|              | Within<br>Groups  | 37,683  | 44  | ,856  |       |       |
|              | Total             | 43,745  | 46  |       |       |       |
| VAR000       | Between           | 3,164   | 2   | 1,582 | 2,040 | ,142  |
| 39           | Groups            | 3,104   | ۷   | 1,562 | 2,040 | , 142 |
|              | Within            | 34,113  | 44  | ,775  |       |       |
|              | Groups<br>Total   | 37,277  | 46  |       |       |       |
| VAR000       | Between           | ·       |     | 0.40  | 500   | 500   |
| 40           | Groups            | ,496    | 2   | ,248  | ,582  | ,563  |
|              | Within            | 18,738  | 44  | ,426  |       |       |
|              | Groups            | ·       |     | , 0   |       |       |
| VAR000       | Total<br>Between  | 19,234  | 46  |       |       |       |
| 41           | Groups            | 1,380   | 2   | ,690  | 2,552 | ,089  |
|              | Within            | 11,897  | 44  | ,270  |       |       |
|              | Groups            | ·       |     | ,270  |       |       |
| \            | Total             | 13,277  | 46  |       |       |       |
| VAR000<br>42 | Between           | 2,907   | 2   | 1,453 | 1,222 | ,304  |
| 42           | Groups<br>Within  |         |     |       |       |       |
|              | Groups            | 52,327  | 44  | 1,189 |       |       |
|              | Total             | 55,234  | 46  |       |       |       |
| VAR000       | Between           | 1,662   | 2   | ,831  | 1,469 | ,241  |
| 43           | Groups            | 1,002   | _   | ,001  | 1,400 | ,241  |
|              | Within            | 24,891  | 44  | ,566  |       |       |
|              | Groups<br>Total   | 26,553  | 46  |       |       |       |
| VAR000       | Between           |         |     | 000   | 0.40  | 000   |
| 44           | Groups            | ,006    | 2   | ,003  | ,012  | ,988  |
|              | Within            | 10,462  | 44  | ,238  |       |       |
|              | Groups            |         |     | ,200  |       |       |
| VAR000       | Total<br>Between  | 10,468  | 46  |       |       |       |
| 45           | Groups            | 15,037  | 2   | 7,518 | 2,890 | ,066  |
|              | Within            | 444 450 | 4.4 | 2.004 |       |       |
|              | Groups            | 114,452 | 44  | 2,601 |       |       |
|              | Total             | 129,489 | 46  |       |       |       |
| VAR000<br>46 | Between           | 6,098   | 2   | 3,049 | 1,591 | ,215  |
| 40           | Groups<br>Within  |         |     |       |       |       |
|              | Groups            | 84,327  | 44  | 1,917 |       |       |
|              | Total             | 90,426  | 46  |       |       |       |
| VAR000       | Between           | 3,101   | 2   | 1,550 | 3,180 | ,051  |
| 47           | Groups            | 5,151   | _   | .,550 | 5,100 | ,551  |

|        | Within            | 21,452  | 44  | ,488   |       |      |
|--------|-------------------|---------|-----|--------|-------|------|
|        | Groups<br>Total   | 24,553  | 46  | ,      |       |      |
| VAR000 | Between           |         | _   | 100    | 000   | 4.40 |
| 48     | Groups            | ,977    | 2   | ,489   | ,823  | ,446 |
|        | Within            | 26,129  | 44  | ,594   |       |      |
|        | Groups            |         |     | ,00.   |       |      |
| VAR000 | Total<br>Between  | 27,106  | 46  |        |       |      |
| 49     | Groups            | ,588    | 2   | ,294   | ,221  | ,802 |
|        | Within            | 58,391  | 44  | 1,327  |       |      |
|        | Groups            |         |     | 1,527  |       |      |
| VAR000 | Total             | 58,979  | 46  |        |       |      |
| 50     | Between<br>Groups | ,355    | 2   | ,177   | ,388  | ,681 |
|        | Within            | 00.440  | 4.4 | 457    |       |      |
|        | Groups            | 20,113  | 44  | ,457   |       |      |
|        | Total             | 20,468  | 46  |        |       |      |
| VAR000 | Between           | 20,693  | 2   | 10,347 | 7,082 | ,002 |
| 51     | Groups<br>Within  |         |     |        |       |      |
|        | Groups            | 64,286  | 44  | 1,461  |       |      |
|        | Total             | 84,979  | 46  |        |       |      |
| VAR000 | Between           | 23,533  | 2   | 11,767 | 8,204 | ,001 |
| 52     | Groups            |         | _   | ,      | 0,20  | ,001 |
|        | Within<br>Groups  | 63,105  | 44  | 1,434  |       |      |
|        | Total             | 86,638  | 46  |        |       |      |
| VAR000 | Between           | 11,655  | 2   | 5,828  | 7,876 | ,001 |
| 53     | Groups            | 11,000  | ۷   | 3,020  | 7,070 | ,001 |
|        | Within<br>Groups  | 32,558  | 44  | ,740   |       |      |
|        | Total             | 44,213  | 46  |        |       |      |
| VAR000 | Between           |         |     | 0.000  | 7.000 | 004  |
| 54     | Groups            | 4,076   | 2   | 2,038  | 7,629 | ,001 |
|        | Within            | 11,754  | 44  | ,267   |       |      |
|        | Groups<br>Total   | 15,830  | 46  | ,      |       |      |
| VAR000 | Between           |         |     |        |       |      |
| 55     | Groups            | 20,551  | 2   | 10,275 | 3,703 | ,033 |
|        | Within            | 122,087 | 44  | 2,775  |       |      |
|        | Groups            |         |     | 2,110  |       |      |
| VAR000 | Total<br>Between  | 142,638 | 46  |        |       |      |
| 56     | Groups            | ,328    | 2   | ,164   | ,530  | ,592 |
|        | Within            | 12 620  | 44  | 240    |       |      |
|        | Groups            | 13,629  |     | ,310   |       |      |
|        | Total             | 13,957  | 46  |        |       |      |

| VAR000       | Between           | 14,226  | 2  | 7,113  | 5,556  | ,007  |
|--------------|-------------------|---------|----|--------|--------|-------|
| 57           | Groups            | ,===    | _  | ,,,,,  | 0,000  | ,,,,, |
|              | Within<br>Groups  | 56,327  | 44 | 1,280  |        |       |
|              | Total             | 70,553  | 46 |        |        |       |
| VAR000       | Between           | 4,810   | 2  | 2,405  | 2,455  | ,098  |
| 58           | Groups            | 4,010   | ۷  | 2,403  | 2,400  | ,090  |
|              | Within            | 43,105  | 44 | ,980   |        |       |
|              | Groups<br>Total   | 47,915  | 46 |        |        |       |
| VAR000       | Between           | ·       |    | 0.000  | 4.045  | 0.40  |
| 59           | Groups            | 4,180   | 2  | 2,090  | 4,315  | ,019  |
|              | Within            | 21,310  | 44 | ,484   |        |       |
|              | Groups            |         |    | ,      |        |       |
| VAR000       | Total<br>Between  | 25,489  | 46 |        |        |       |
| 60           | Groups            | 3,212   | 2  | 1,606  | 2,175  | ,126  |
|              | Within            | 24 744  | 43 | 720    |        |       |
|              | Groups            | 31,744  |    | ,738   |        |       |
| \/A D000     | Total             | 34,957  | 45 |        |        |       |
| VAR000<br>61 | Between<br>Groups | 12,177  | 2  | 6,088  | 2,165  | ,127  |
| 01           | Within            |         |    |        |        |       |
|              | Groups            | 123,738 | 44 | 2,812  |        |       |
|              | Total             | 135,915 | 46 |        |        |       |
| VAR000       | Between           | 14,182  | 2  | 7,091  | 2,779  | ,073  |
| 62           | Groups<br>Within  | ,       |    | ,      | ,      | ,     |
|              | Groups            | 112,286 | 44 | 2,552  |        |       |
|              | Total             | 126,468 | 46 |        |        |       |
| VAR000       | Between           | 5,268   | 2  | 2,634  | 2,132  | ,131  |
| 63           | Groups            | 0,200   | _  | 2,004  | 2,102  | , 101 |
|              | Within<br>Groups  | 54,349  | 44 | 1,235  |        |       |
|              | Total             | 59,617  | 46 |        |        |       |
| VAR000       | Between           | 25,959  | 2  | 12,980 | 10,046 | ,000  |
| 64           | Groups            | 25,959  | ۷  | 12,900 | 10,040 | ,000  |
|              | Within            | 56,849  | 44 | 1,292  |        |       |
|              | Groups<br>Total   | 82,809  | 46 | ·      |        |       |
| VAR000       | Between           | ·       |    | 0.000  | 0.000  | 000   |
| 65           | Groups            | 6,560   | 2  | 3,280  | 9,220  | ,000  |
|              | Within            | 15,653  | 44 | ,356   |        |       |
|              | Groups<br>Total   |         | 46 | ,,,,,, |        |       |
| VAR000       | Between           | 22,213  |    |        |        | _     |
| 66           | Groups            | ,077    | 2  | ,038   | ,143   | ,867  |
|              | Within            | 11,796  | 44 | ,268   |        |       |

| VAR000 | Groups<br>Total<br>Between | 11,872<br>3,910 | 46<br>2 | 1,955 | 2,117 | ,133   |
|--------|----------------------------|-----------------|---------|-------|-------|--------|
| 67     | Groups<br>Within<br>Groups | 40,643          | 44      | ,924  | _,    | ,,,,,, |
|        | Total                      | 44,553          | 46      |       |       |        |

## APPENDIX D

Table: D.1 – Anova Test According to Star Rating

|              | -                 | Sum of<br>Squares | df  | Mean<br>Square | F     | Sig. |
|--------------|-------------------|-------------------|-----|----------------|-------|------|
| VAR000       | Between           | <u> </u>          |     |                |       |      |
| 01           | Groups            | 1,105             | 2   | ,552           | ,952  | ,394 |
|              | Within            | 25,534            | 44  | ,580           |       |      |
|              | Groups<br>Total   | 26,638            | 46  | ,              |       |      |
| VAR000       | Between           |                   |     |                |       |      |
| 02           | Groups            | ,845              | 2   | ,422           | 1,086 | ,347 |
|              | Within            | 17,113            | 44  | ,389           |       |      |
|              | Groups            |                   |     | ,000           |       |      |
| VAR000       | Total<br>Between  | 17,957            | 46  |                |       |      |
| 03           | Groups            | ,685              | 2   | ,342           | ,794  | ,459 |
|              | Within            | 18,975            | 44  | ,431           |       |      |
|              | Groups            |                   |     | ,431           |       |      |
| VAR000       | Total<br>Between  | 19,660            | 46  |                |       |      |
| 04           | Groups            | 2,516             | 2   | 1,258          | ,792  | ,459 |
|              | Within            | 60,000            | 44  | 1 500          |       |      |
|              | Groups            | 69,909            |     | 1,589          |       |      |
| \\\A D000    | Total             | 72,426            | 46  |                |       |      |
| VAR000<br>05 | Between<br>Groups | 1,577             | 2   | ,788           | 1,220 | ,305 |
|              | Within            | 00.400            | 4.4 | 2.40           |       |      |
|              | Groups            | 28,423            | 44  | ,646           |       |      |
|              | Total             | 30,000            | 46  |                |       |      |
| VAR000       | Between           | ,118              | 2   | ,059           | ,070  | ,933 |
| 06           | Groups<br>Within  |                   |     |                |       |      |
|              | Groups            | 37,159            | 44  | ,845           |       |      |
|              | Total             | 37,277            | 46  |                |       |      |
| VAR000       | Between           | 4,097             | 2   | 2,049          | 2,394 | ,103 |
| 07           | Groups<br>Within  | ,                 |     |                | ,     | ,    |
|              | Groups            | 37,647            | 44  | ,856           |       |      |
|              | Total             | 41,745            | 46  |                |       |      |
| VAR000       | Between           | 3,735             | 2   | 1,868          | 2,567 | ,088 |
| 08           | Groups<br>Within  | 5,7 55            | -   | 1,000          | _,00. | ,555 |
|              | Groups            | 32,009            | 44  | ,727           |       |      |
|              | Total             | 35,745            | 46  |                |       |      |
| VAR000       | Between           | ,191              | 2   | ,096           | ,135  | ,874 |

| 09           | Groups                      |         |    |        |            |      |
|--------------|-----------------------------|---------|----|--------|------------|------|
|              | Within<br>Groups            | 31,085  | 44 | ,706   |            |      |
|              | Total                       | 31,277  | 46 |        |            |      |
| VAR000<br>10 | Between<br>Groups           | ,890    | 2  | ,445   | ,648       | ,528 |
|              | Within<br>Groups            | 30,216  | 44 | ,687   |            |      |
|              | Total                       | 31,106  | 46 |        |            |      |
| VAR000<br>11 | Between<br>Groups<br>Within | 2,985   | 2  | 1,493  | 1,002      | ,376 |
|              | Groups                      | 65,568  | 44 | 1,490  |            |      |
|              | Total                       | 68,553  | 46 |        |            |      |
| VAR000<br>12 | Between<br>Groups           | 7,432   | 2  | 3,716  | 2,810      | ,071 |
|              | Within<br>Groups            | 58,185  | 44 | 1,322  |            |      |
|              | Total                       | 65,617  | 46 |        |            |      |
| VAR000       | Between                     | 7,857   | 2  | 3,928  | 3,004      | ,060 |
| 13           | Groups<br>Within            | 57,547  | 44 | 1,308  | - <b>,</b> | ,    |
|              | Groups<br>Total             | 65,404  | 46 |        |            |      |
| VAR000<br>14 | Between<br>Groups           | 26,853  | 2  | 13,426 | 3,123      | ,054 |
|              | Within<br>Groups            | 189,147 | 44 | 4,299  |            |      |
|              | Total                       | 216,000 | 46 |        |            |      |
| VAR000<br>15 | Between<br>Groups           | ,728    | 2  | ,364   | ,736       | ,485 |
|              | Within<br>Groups            | 21,741  | 44 | ,494   |            |      |
|              | Total                       | 22,468  | 46 |        |            |      |
| VAR000<br>16 | Between<br>Groups           | 1,785   | 2  | ,893   | ,805       | ,453 |
|              | Within<br>Groups            | 48,768  | 44 | 1,108  |            |      |
|              | Total                       | 50,553  | 46 |        |            |      |
| VAR000<br>17 | Between<br>Groups           | 5,755   | 2  | 2,877  | 2,522      | ,092 |
|              | Within<br>Groups            | 50,203  | 44 | 1,141  |            |      |
|              | Total                       | 55,957  | 46 |        |            |      |
| VAR000<br>18 | Between<br>Groups           | 5,002   | 2  | 2,501  | 2,302      | ,112 |
|              | Within<br>Groups            | 47,807  | 44 | 1,087  |            |      |

|              | Total             | 52,809  | 46 |       |       |      |
|--------------|-------------------|---------|----|-------|-------|------|
| VAR000<br>19 | Between<br>Groups | ,092    | 2  | ,046  | ,024  | ,976 |
|              | Within<br>Groups  | 83,228  | 44 | 1,892 |       |      |
|              | Total             | 83,319  | 46 |       |       |      |
| VAR000       | Between           | ,049    | 2  | ,025  | ,027  | ,973 |
| 20           | Groups            | ,049    | 2  | ,020  | ,021  | ,970 |
|              | Within<br>Groups  | 39,866  | 44 | ,906  |       |      |
|              | Total             | 39,915  | 46 |       |       |      |
| VAR000       | Between           | 2,145   | 2  | 1,072 | ,847  | ,436 |
| 21           | Groups            | 2,140   | 2  | 1,072 | ,047  | ,+30 |
|              | Within<br>Groups  | 55,728  | 44 | 1,267 |       |      |
|              | Total             | 57,872  | 46 |       |       |      |
| VAR000       | Between           | 9,705   | 2  | 4,852 | 1,480 | ,239 |
| 22           | Groups            | 9,700   | ۷  | 4,032 | 1,400 | ,209 |
|              | Within<br>Groups  | 144,210 | 44 | 3,278 |       |      |
|              | Total             | 153,915 | 46 |       |       |      |
| VAR000       | Between           | 1,534   | 2  | ,767  | ,347  | ,709 |
| 23           | Groups            | 1,554   | ۷  | ,707  | ,347  | ,709 |
|              | Within            | 97,275  | 44 | 2,211 |       |      |
|              | Groups<br>Total   | 98,809  | 46 |       |       |      |
| VAR000       | Between           | ·       | 2  | 1 660 | 016   | ,449 |
| 24           | Groups            | 3,337   | 2  | 1,669 | ,816  | ,449 |
|              | Within            | 89,982  | 44 | 2,045 |       |      |
|              | Groups<br>Total   | 93,319  | 46 |       |       |      |
| VAR000       | Between           | ŕ       |    | 4.050 | 4 470 | 044  |
| 25           | Groups            | 8,699   | 2  | 4,350 | 1,470 | ,241 |
|              | Within            | 130,152 | 44 | 2,958 |       |      |
|              | Groups<br>Total   | 138,851 | 46 | ·     |       |      |
| VAR000       | Between           | ŕ       |    | 1 700 | 0.007 | 100  |
| 26           | Groups            | 3,445   | 2  | 1,722 | 2,337 | ,108 |
|              | Within            | 32,428  | 44 | ,737  |       |      |
|              | Groups<br>Total   | 35,872  | 46 | ·     |       |      |
| VAR000       | Between           | ·       |    | 0.004 | 0.005 | 400  |
| 27           | Groups            | 6,049   | 2  | 3,024 | 2,395 | ,103 |
|              | Within            | 55,568  | 44 | 1,263 |       |      |
|              | Groups<br>Total   | 61,617  | 46 | , -   |       |      |
| VAR000       | Between           | ·       |    | 0.050 | 4 004 | 000  |
| 28           | Groups            | 6,718   | 2  | 3,359 | 1,624 | ,209 |

| VAR000   Between   2,583   2   |         | Within          | 91,027                                  | 44  | 2,069        |       |            |
|--|---------|-----------------|---|-----|--------------|-------|------------|
| VAR000<br>29         Between<br>Groups<br>Total         2,583         2         1,291         ,616         ,545           VAR000<br>30         Between<br>Groups<br>Total         92,268<br>94,851         44<br>4         2,097<br>2,097         2,097<br>36,132         2         18,066<br>4,148         4,148         ,022           VAR000<br>30         Between<br>Groups<br>Total         191,613<br>227,745         46<br>46         44         4,355<br>46         44         4,355<br>46         44         4,956<br>47         2,434         ,099         4,549<br>47         2         12,064<br>44         2,434         ,099         4,549<br>47         2         12,064<br>44         2,434         ,099         4,549<br>47         2         2,274<br>47         1,492<br>47         2,366<br>47         2,434<br>47         ,099         2,4127<br>47         2         1,2064<br>44         2,434<br>49         ,099         2,4127<br>48         2         2,274<br>48         1,492<br>49         2,236<br>44         2,236<br>44         2,2274<br>44         1,492<br>49         2,236<br>48         3,377<br>4,688         4,549<br>49         2         2,274<br>49         1,492<br>49         2,358<br>49         3,377<br>4,688         4,549<br>49         2         3,358<br>49         3,377<br>4,688         4,549<br>49         2         3,358<br>49         4,542<br>49         4,442<br>49         4,442<br>49         4,442<br>49         4,444<br>4,956   |         | Groups<br>Total |   | 46  | ,            |       |            |
| 29   Groups   92,268   44   2,097  | VAR000  |                 |   |     | 4 004        | 040   | <b>545</b> |
| Groups Total VARO00 Between 30 Groups Within Groups Total VARO00 Between 30 Groups Within Groups Total VARO00 Between 31 Groups Total VARO00 Between 31 Groups Total VARO00 Between 32 Groups Total VARO00 Between 32 Groups Within Groups Total VARO00 Between 32 Groups Within Groups Total VARO00 Between 33 Groups Total VARO00 Between 33 Groups Total VARO00 Between 33 Groups Total VARO00 Between 33 Groups Within Groups Total VARO00 Between 33 Groups Within Groups Total VARO00 Between 34 Groups Total VARO00 Between 35 Groups Within Groups Total VARO00 Between 36 Groups Within Groups Total VARO00 Between 37,159 Ad Groups Within Groups Total VARO00 Between 31 Groups Within Groups Total Tot | 29      | •               | 2,583                                   | 2   | 1,291        | ,010  | ,545       |
| VAR000 Between 30 Groups Within Groups Total         94,851 Add 46         46         46         46         4,148 Add 4,355         46         4,148 Add 4,355         44         4,355 Add 4,355         44         4,355 Add 4,355         44         4,355 Add 4,355         46         4,4355 Add 4,355         46         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,956         4,549 Add 4,549 Add 4,524         4,549 Add 4,549 Add 4,524         4,549 Add 4,549 Add 4,524         4,549 Add 4   |         | -               | 92,268                                  | 44  | 2,097        |       |            |
| VAR000 Between 30 Groups         Between 36,132 Groups         36,132 Within 30 Groups         2 18,066 Total 4,148 Total 4,355 Groups         4,148 Total 4,355 Total 4,355 Total 4,355 Total 5,31 Groups Within Groups Total 5,31 Groups Within Groups Total 5,32 Groups Within Groups Within Groups Total 7,617   |         | •               |   | 16  | ,            |       |            |
| 30   Groups   30,132   2   18,066   4,148   ,022   | VAR000  |                 |   |     |              |       |            |
| Groups   Total   Care   |         |                 | 36,132                                  | 2   | 18,066       | 4,148 | ,022       |
| VAR000         Between 31         227,745         46         46         24,127         2         12,064         2,434         ,099           VAR000         Between 31         241,277         2         12,064         2,434         ,099           VAR000         Between 32         242,213         46         46         44         4,549         2         2,274         1,492         ,236           VAR000         Between 32         67,068         44         1,524         44         1,524         44         44         1,524         44   |         |                 | 101 613                                 | 11  | <i>4</i> 355 |       |            |
| VAR000 Setween 31 Groups Within Groups Within Groups Total         24,127         2 12,064         2,434         ,099           VAR000 Setween 32 Groups Within Groups Total         4,549         2 2,274         1,492         ,236           VAR000 Between 33 Groups Within Groups Total         71,617         46         44         1,524         ,358         ,377         ,688           VAR000 Between 34 Groups Within Groups Total         42,426         46         44         ,948         ,377         ,688           VAR000 Between 34 Groups Within Groups Total         1,778         2 ,889         1,052         ,358           VAR000 Between 35 Groups Within Groups Total         1,492         2 ,746         2,641         ,083           VAR000 Between 36 Groups Within         13,915         46         44         ,282         ,391           VAR000 Between 36 Groups Within         1,379         2 ,689         ,960         ,391  |         | •               |   |     | 4,555        |       |            |
| 31   | \/AD000 |                 | 227,745                                 | 46  |              |       |            |
| Within Groups Total         218,085         44         4,956           VAR000 Between 32 Groups Within Groups Total         4,549         2         2,274         1,492         ,236           VAR000 Between 33 Groups Within Groups Total         71,617         46         44         1,524         ,358         ,377         ,688           VAR000 Between 34 Groups Within Groups Total         42,426         46         44         ,948         ,377         ,688           VAR000 Between 34 Groups Within Groups Total         37,159         44         ,845         ,358         ,377         ,358           VAR000 Between 35 Groups Within Groups Total         1,492         2         ,746         2,641         ,083           VAR000 Between 36 Groups Within Groups Within Groups Within Groups Within Within Groups Within Groups Within Groups Within Groups Within Groups Within Groups Within Groups Within Mithin Groups Within Gr  |         |                 | 24,127                                  | 2   | 12,064       | 2,434 | ,099       |
| Groups Total VAR000 Between 32 Groups Within Groups Total VAR000 Between 32 Groups Within Groups Total VAR000 Between 33 Groups Within Groups Total VAR000 Between 34 Groups Within Groups Total VAR000 Between 34 Groups Within Groups Within Groups Total VAR000 Between 34 Groups Within Groups Within Groups Within Groups Within Groups Within Groups Within Groups Total VAR000 Between 35 Groups Within Groups Total VAR000 Between 35 Groups Within Groups Total VAR000 Between 36 Groups Within Groups Total VAR000 Between 37,159 Groups Within Groups Total Total VAR000 Between 36 Groups Within Groups Total VAR000 Between 36 Groups Within Groups Total VAR000 Between 36 Groups Within Groups Total VAR000 Between 36 Groups Within MAR000 Between 36 Groups Within MAR000 Between 36 Groups Within MAR000 MAR000 Between 36 Groups Within MAR000 M |         | •               | 040.00                                  |     | 4.050        |       |            |
| VAR000 Between 32 Groups Within Groups Total         4,549         2 2,274         1,492         ,236           VAR000 Between 33 Groups Within Groups Total         71,617         46         44         1,524         ,358         ,377         ,688           VAR000 Between 34 Groups Total         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         46         42,426         44         ,845         ,358         ,468         ,468         ,468         ,468         ,468         ,468         ,468         ,468         ,468         ,468         ,468         ,468<   |         | -               | 218,085                                 | 44  | 4,956        |       |            |
| 32 Groups Within Groups Total 71,617 46  VAR000 Between 33 Groups Within Groups Total 41,710 44 ,948   |         |                 | 242,213                                 | 46  |              |       |            |
| 32       Groups<br>Within<br>Groups<br>Total       67,068<br>71,617       44<br>46       1,524         VAR000<br>33       Between<br>Groups<br>Within<br>Groups<br>Total       ,715<br>42,426       2<br>,358<br>,377       ,688         VAR000<br>34       Between<br>Groups<br>Within<br>Groups<br>Total       1,778<br>38,936       2<br>,889<br>46       1,052<br>,358       ,388         VAR000<br>35       Between<br>Groups<br>Within<br>Groups<br>Total       1,492<br>12,423       2<br>,746<br>44<br>,282       ,746<br>2,641       2,641<br>,083         VAR000<br>36       Between<br>Groups<br>Total       13,915<br>46       46       44       ,282<br>44<br>,282       ,960<br>,960       ,391<br>,391         VAR000<br>36       Between<br>Groups<br>Within       1,379<br>31,600       2<br>,689<br>31,600       ,960<br>391       ,391  |         |                 | 4,549                                   | 2   | 2,274        | 1,492 | ,236       |
| Groups Total  VAR000 Between 33 Groups Within Groups Total  VAR000 Between 34 Groups Total  VAR000 Between 35 Groups Total  VAR000 Between 36 Groups Total  VAR000 Between 37,159 38,936  VAR000 Between 35 Groups Within Groups Total  VAR000 Between 36 Groups Within Groups Total  VAR000 Between 36 Groups Within  Groups Total  VAR000 Between 36 Groups Within  31,600  44 T1,524  46 T1,524  46 T1,524  47 T1,524  48 T1,524  48 T1,524  49 T1,524  T1, | 32      |                 | ,                                       |     | ,            | ,     | ,          |
| Total         71,617         46           VAR000         Between 33         ,715         2         ,358         ,377         ,688           Within Groups Total         41,710         44         ,948 </td <td></td> <td></td> <td>67,068</td> <td>44</td> <td>1,524</td> <td></td> <td></td>   |         |                 | 67,068                                  | 44  | 1,524        |       |            |
| VAR000         Between 33         ,715         2         ,358         ,377         ,688           Within Groups Total         41,710         44         ,948         ,948         ,377         ,688           VAR000         Between 34         42,426         46         ,948         1,052         ,358           Within Groups Total         37,159         44         ,845         ,845         ,358           VAR000         Between 35         38,936         46         ,44         ,282         ,746         2,641         ,083           Within Groups Total         12,423         44         ,282         ,2641         ,083           VAR000 Between 36         1,379         2         ,689         ,960         ,391           Within   |         | •               | 71,617                                  | 46  |              |       |            |
| 33       Groups Within Groups Total       41,710       44       ,948         VAR000 Between 34       1,778       2       ,889       1,052       ,358         Within Groups Total       37,159       44       ,845       ,964       ,983       ,983       ,983       ,44       ,282       ,444       ,282       ,844       ,983       ,983       ,44       ,282       ,444       ,282       ,444       ,445       ,445       ,445  | VAR000  | Between         |   | 2   | 359          | 377   | 688        |
| Groups Total VAR000 Between 34 Groups Within Groups Total VAR000 Between 35 Groups Within Groups Total VAR000 Between 35 Groups Total VAR000 Between Total T | 33      |                 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | ۷   | ,556         | ,311  | ,000       |
| Total  |         |                 | 41,710                                  | 44  | ,948         |       |            |
| VAR000       Between 34       1,778       2       ,889       1,052       ,358         Within Groups Total       37,159       44       ,845   |         | •               | 12.426                                  | 46  |              |       |            |
| 34       Groups Within Groups Total       1,778       2       ,889       1,052       ,358         VAR000 Between 35       38,936       46  | VAR000  |                 | ,                                       |     |              | 4.0=0 |            |
| Groups Total VAR000 Between 35 Groups Within Groups Total VAR000 Between 36 Groups Within 31 600  37,159  44 ,845  46  746  747  748  748  748  749  749  740  741  741  745  745  746  747  746  747  748  748  748  748  |         |                 | 1,778                                   | 2   | ,889         | 1,052 | ,358       |
| Total 38,936 46  VAR000 Between 35 Groups Within Groups Total 13,915 46  VAR000 Between 36 Groups Within 31,600 44 718   |         |                 | 37 159                                  | 44  | 845          |       |            |
| VAR000 Between 35 Groups Within Groups Total       1,492       2 ,746       2,641       ,083         VAR000 Between 36 Groups Within       13,915       46       4   |         | •               |   |     | ,040         |       |            |
| 35 Groups Within Groups Total  VAR000 Between 36 Groups Within  31 600  1,492  2 ,746  2,641  ,083  44 ,282  48 ,282  48 ,282  49 ,689  ,960  ,391   | \/AB000 |                 | 38,936                                  | 46  |              |       |            |
| Within Groups Total 12,423 44 ,282 VAR000 Between 36 Groups Within 31,600 44 718   |         |                 | 1,492                                   | 2   | ,746         | 2,641 | ,083       |
| Total 13,915 46 VAR000 Between 36 Groups Within 31,600 44 718  |         | •               | 40.400                                  | 4.4 | 000          |       |            |
| VAR000 Between 36 Groups Within     1,379     2 ,689 ,960 ,391   |         |                 | 12,423                                  | 44  | ,282         |       |            |
| 36 Groups   1,379   2   ,689   ,960   ,391   |         |                 | 13,915                                  | 46  |              |       |            |
| Within 31 600 44 718   |         |                 | 1,379                                   | 2   | ,689         | ,960  | ,391       |
| 1 31 600 44 718  | 36      | •               |   |     | ,            | •     | ,          |
| I Groups I   |         | Groups          | 31,600                                  | 44  | ,718         |       |            |
| Total 32,979 46  |         | •               | 32,979                                  | 46  |              |       |            |
| VAR000 Between 4 504 2 2 252 2 326 110   |         |                 |   | 2   | 2 252        | 2 326 | 110        |
| 37 Groups  | 37      |                 | 7,504                                   | 4   | ۷,۷۵۷        | 2,020 | , 110      |
| Within 42,603 44 ,968  |         |                 | 42,603                                  | 44  | ,968         |       |            |
| Groups 72,005 44 ,500 Total 47,106 46  |         |                 |   | 46  |              |       |            |

| VAR000<br>38 | Between<br>Groups | 2,563   | 2   | 1,281 | 1,369 | ,265   |
|--------------|-------------------|---------|-----|-------|-------|--------|
|              | Within            | 41,182  | 44  | ,936  |       |        |
|              | Groups<br>Total   | 43,745  | 46  | ,000  |       |        |
| VAR000       | Between           | ·       |     |       |       |        |
| 39           | Groups            | 3,125   | 2   | 1,562 | 2,013 | ,146   |
|              | Within            | 34,152  | 44  | ,776  |       |        |
|              | Groups            |         |     | ,,,,  |       |        |
| VAR000       | Total<br>Between  | 37,277  | 46  |       |       |        |
| 40           | Groups            | ,272    | 2   | ,136  | ,316  | ,731   |
|              | Within            | 10.060  | 44  | 121   |       |        |
|              | Groups            | 18,962  |     | ,431  |       |        |
| \            | Total             | 19,234  | 46  |       |       |        |
| VAR000<br>41 | Between<br>Groups | ,608    | 2   | ,304  | 1,057 | ,356   |
| 41           | Within            |         |     |       |       |        |
|              | Groups            | 12,668  | 44  | ,288  |       |        |
|              | Total             | 13,277  | 46  |       |       |        |
| VAR000       | Between           | ,475    | 2   | ,238  | ,191  | ,827   |
| 42           | Groups            | ,       | _   | ,     | ,     | ,02.   |
|              | Within<br>Groups  | 54,759  | 44  | 1,245 |       |        |
|              | Total             | 55,234  | 46  |       |       |        |
| VAR000       | Between           | 1,281   | 2   | 640   | 1,115 | 227    |
| 43           | Groups            | 1,201   | ۷   | ,640  | 1,115 | ,337   |
|              | Within            | 25,272  | 44  | ,574  |       |        |
|              | Groups<br>Total   | 26,553  | 46  | ,     |       |        |
| VAR000       | Between           | , i     |     |       |       |        |
| 44           | Groups            | ,803    | 2   | ,402  | 1,829 | ,173   |
|              | Within            | 9,665   | 44  | ,220  |       |        |
|              | Groups            |         |     | ,220  |       |        |
| VAR000       | Total<br>Between  | 10,468  | 46  |       |       |        |
| 45           | Groups            | 15,451  | 2   | 7,726 | 2,981 | ,061   |
|              | Within            | 444.000 | 4.4 | 0.500 |       |        |
|              | Groups            | 114,038 | 44  | 2,592 |       |        |
|              | Total             | 129,489 | 46  |       |       |        |
| VAR000       | Between           | 3,623   | 2   | 1,811 | ,918  | ,407   |
| 46           | Groups<br>Within  |         |     |       |       |        |
|              | Groups            | 86,803  | 44  | 1,973 |       |        |
|              | Total             | 90,426  | 46  |       |       |        |
| VAR000       | Between           | 3,381   | 2   | 1,690 | 3,513 | ,038   |
| 47           | Groups            | ·       |     |       | 2,2.0 | ,,,,,, |
| 1            | Within            | 21,172  | 44  | ,481  |       | I      |

|              | Groups             |         |    |       |       |      |
|--------------|--------------------|---------|----|-------|-------|------|
| \\\A\D000    | Total              | 24,553  | 46 |       |       |      |
| VAR000<br>48 | Between<br>Groups  | 1,004   | 2  | ,502  | ,846  | ,436 |
|              | Within<br>Groups   | 26,103  | 44 | ,593  |       |      |
|              | Total <sup>.</sup> | 27,106  | 46 |       |       |      |
| VAR000<br>49 | Between<br>Groups  | 1,314   | 2  | ,657  | ,501  | ,609 |
|              | Within<br>Groups   | 57,665  | 44 | 1,311 |       |      |
|              | Total              | 58,979  | 46 |       |       |      |
| VAR000<br>50 | Between<br>Groups  | ,528    | 2  | ,264  | ,582  | ,563 |
|              | Within<br>Groups   | 19,941  | 44 | ,453  |       |      |
|              | Total              | 20,468  | 46 |       |       |      |
| VAR000       | Between            | 12,669  | 2  | 6,335 | 3,855 | ,029 |
| 51           | Groups<br>Within   |         | _  |       | 3,000 | ,=== |
|              | Groups             | 72,309  | 44 | 1,643 |       |      |
|              | Total              | 84,979  | 46 |       |       |      |
| VAR000<br>52 | Between<br>Groups  | 13,691  | 2  | 6,845 | 4,129 | ,023 |
|              | Within<br>Groups   | 72,947  | 44 | 1,658 |       |      |
|              | Total              | 86,638  | 46 |       |       |      |
| VAR000       | Between            | 8,113   | 2  | 4,056 | 4,944 | ,012 |
| 53           | Groups<br>Within   | 36,100  | 44 | ,820  | ,     | ,    |
|              | Groups<br>Total    | 44,213  | 46 | ,020  |       |      |
| VAR000       | Between            | , ·     |    | 004   | 0.704 | 070  |
| 54           | Groups             | 1,782   | 2  | ,891  | 2,791 | ,072 |
|              | Within<br>Groups   | 14,047  | 44 | ,319  |       |      |
|              | Total              | 15,830  | 46 |       |       |      |
| VAR000       | Between            | 12,522  | 2  | 6,261 | 2,117 | ,132 |
| 55           | Groups<br>Within   |         |    |       | ,     | , -  |
|              | Groups             | 130,116 | 44 | 2,957 |       |      |
|              | Total              | 142,638 | 46 |       |       |      |
| VAR000<br>56 | Between<br>Groups  | ,845    | 2  | ,422  | 1,417 | ,253 |
|              | Within<br>Groups   | 13,113  | 44 | ,298  |       |      |
|              | Total              | 13,957  | 46 |       |       |      |
| VAR000       | Between            | 6,751   | 2  | 3,375 | 2,328 | ,109 |

| 57           | Groups            | I       |    |        |        |      |
|--------------|-------------------|---------|----|--------|--------|------|
|              | Within<br>Groups  | 63,803  | 44 | 1,450  |        |      |
|              | Total             | 70,553  | 46 |        |        |      |
| VAR000<br>58 | Between<br>Groups | 2,756   | 2  | 1,378  | 1,343  | ,272 |
|              | Within<br>Groups  | 45,159  | 44 | 1,026  |        |      |
|              | Total             | 47,915  | 46 |        |        |      |
| VAR000<br>59 | Between<br>Groups | 2,904   | 2  | 1,452  | 2,829  | ,070 |
|              | Within<br>Groups  | 22,585  | 44 | ,513   |        |      |
|              | Total             | 25,489  | 46 |        |        |      |
| VAR000<br>60 | Between<br>Groups | 1,342   | 2  | ,671   | ,859   | ,431 |
|              | Within<br>Groups  | 33,614  | 43 | ,782   |        |      |
|              | Total             | 34,957  | 45 |        |        |      |
| VAR000       | Between           | 5,625   | 2  | 2,813  | ,950   | ,395 |
| 61           | Groups<br>Within  | 130,290 | 44 | 2,961  | ,,,,,, | ,000 |
|              | Groups<br>Total   | 135,915 | 46 | ,      |        |      |
| VAR000<br>62 | Between<br>Groups | 22,127  | 2  | 11,063 | 4,665  | ,015 |
|              | Within<br>Groups  | 104,341 | 44 | 2,371  |        |      |
|              | Total             | 126,468 | 46 |        |        |      |
| VAR000<br>63 | Between<br>Groups | 1,001   | 2  | ,500   | ,376   | ,689 |
|              | Within<br>Groups  | 58,616  | 44 | 1,332  |        |      |
|              | Total             | 59,617  | 46 |        |        |      |
| VAR000<br>64 | Between<br>Groups | 9,499   | 2  | 4,750  | 2,851  | ,069 |
|              | Within<br>Groups  | 73,309  | 44 | 1,666  |        |      |
|              | Total             | 82,809  | 46 |        |        |      |
| VAR000<br>65 | Between<br>Groups | 2,096   | 2  | 1,048  | 2,293  | ,113 |
|              | Within<br>Groups  | 20,116  | 44 | ,457   |        |      |
|              | Total             | 22,213  | 46 |        |        |      |
| VAR000<br>66 | Between<br>Groups | ,139    | 2  | ,069   | ,260   | ,772 |
|              | Within<br>Groups  | 11,734  | 44 | ,267   |        |      |

| VAR000<br>67 | Total             | 11,872 | 46 |      |      |      |
|--------------|-------------------|--------|----|------|------|------|
|              | Between<br>Groups | 1,281  | 2  | ,640 | ,651 | ,526 |
|              | Within<br>Groups  | 43,272 | 44 | ,983 |      |      |
|              | Total             | 44,553 | 46 |      |      |      |

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