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Relationship between Internal Customer Satisfaction and the External

Customer Orientation in an IT Organisation.

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Abstract

Purpose – The purpose of this study design and develop a model based on literature review, in which can be found a relationship between internal customer satisfaction and external customer orientation. And thus, by analysing the outputs helps managers to manage employee satisfaction and direct it towards end user orientation.

Design/methodology/approach – Data were collected from a sample of employees within an IT organisation located in Dublin - Ireland, used a questionnaire as a tool.

Findings – The results depicted the fact there is a relationship between internal customer satisfaction and external customer orientation. Additionally, a function has been constructed in order to incorporate different components of internal customer satisfaction that could explain external customer orientation.

Research limitations/implications – The study counted with a small sample size, thus the model has low levels of representativeness and generalisability.

The used statistical software only counts with linear and multilinear regressions, so possibly better regression fitness might have been missed.

Practical implications – Managers could promote the internal customer orientation and employees satisfaction focus in order to increase the external customer orientation and possibly External customer satisfaction.

Originality/value: Few have been researched about Internal customer satisfaction. Thus, with this work, the author pretends to understand INternal customer dynamics and relate it to external customer satisfaction.

Keywords: Internal customer satisfaction, External Customer orientation, Correlation, Multilinear regression.

Acknowledgements

To my family…

My Dad, who taught me to work hard in order to reach my goal.

My Mom, who has always been there to support me and give me her love.

My little sister, who is my friend and my personal Jiminy Cricket.

Table of Contents

List of Appendices

Appendix 1. Perception of Internal Customer Satisfaction and External Customer Orientation.

Abbreviations

- **IC: Internal Customer**
- **EC: External Customer**
- **ICS: Internal Customer Satisfaction.**
- **ECO: External Customer Orientation.**
- **IT: Information Technology.**
- **CR: Career Development.**
- **BC: Benefits and Compensations.**
- **RM: Relationship Manager.**
- **WEV: Work Environment.**
- **WEG: Work Engagement.**

Chapter 1. Introduction

Nowadays, due to globalisation and the exponential growth of technology, organisations must apply continual improvements in order to keep being competitive in the market (Camgöz-Akdağ et al, 2016). And evidently, IT firms are not exempt of this phenomenon. In other words, to function in a competitive environment, the organisation must offer high-quality product/service in order increase its performance and pursuing to satisfy customer's expectations, and so, obtaining advantages over competitors (Pantouvakis, 2012). However, organisations should not only count on external involvement nor the variables that affect their performance. In this mind, it is crucial to highlight the importance of the effective administration of internal resources. Particularly, the employees or internal customers; due to the way in which organisations manage their employees, has an impact on job satisfaction, motivation, employees involvement, and also on organisational performance (Širca et al., 2013).

According to Tennant (2001), there are two types of customers, internal and external one. External customers are the ones none related to the organisation or firm, they are the end users of the product and/or service offered by a certain company. While the internal customers are the employees that directly interact and perform a series of specific activities into the organisation. (Camgöz-Akdağ, İmer and Ergin, 2016) suggest that the word customer is usually related to end users. Also highlights the fact that the products and/or services acquired by those users are the output of a long chain of interrelated activities, in which each of those activities is supplier and customer of other activities or sub-activities into the system. For instance, the operative department in IT firms supplies samples of products in progress to the quality assurance department in order to get them checked. Also, Research and Development division supplies to Sales and Marketing

necessary information about products and their features, in order to attract possible external customer attention. Camgöz-Akdağ agrees with Tennant by defining two groups of customers, the external ones or end users, and the internal customers who are part of the chain of activities inside the organisation.

Talking about internal customer satisfaction is not a new tendency and organisations have tried to give them the weight it deserves. However, in practice, a major effort is put on the external customer satisfaction. A balance must be reached between the two focuses (Conduit et al., 2014a). Generally, the satisfaction of the internal customer is generated by the performance of the employees (Cook, 2008). Consequently, it could be said that satisfaction of internal customer leads to employees performance. Also, employee performance should permit improve the organisational orientation towards external customer (Kennedy et al., 2002). In other words, the satisfaction of employees should lead to a general focus on external customer satisfaction.

While most of the literature related to customer satisfaction is focused on the end user satisfaction (Grace, 2005), this study aims to contribute to closing the gap in the literature by evaluating how internal customer satisfaction can influence the organisational focus towards the external customer. In order to study the ICS, It will be necessary to consider the following components or factors of job satisfaction; Career development, Work environment, Relationship manager and Work engagement (Iyer and Johlke, 2015), in order to evaluate the possible impact of ICS over the external customer orientation.

1.1. Research Objectives

What the author pursues with this research project is to close or fill the gap in literature related to how ICS is related to the ECO. In order to achieve this goal, a revision in depth of the literature would be crucial in order to gather adequate information the help to design the path to be followed to proceed with this dissertation.

The research will consider and examine the following research questions:

- How internal customer satisfaction and its components are perceived by employees within an IT organisation.
- How external customer orientation is perceived by employees within an IT organisation.
- Examine how employees' perception on ICS may have an impact on perception on the ECO.

1.2. Justification for Research

There seems to be a gap in the literature related to internal customer satisfaction, specifically regarding employees perception of the importance of the external customer orientation towards the improvement of organisational performance.

There were no specific questionnaires within the literature addressed to understand the perception of external customer orientation based on internal customer satisfaction. Consequently, a questionnaire was designed in an attempt to create usable scales considering the area of knowledge to be analysed.

1.3. Outline of the Study

This piece of work is organised into six chapters:

- Chapter 1 Introduction, prepares the reader to go through the study.
- Chapter 2 Literature Review, explores internal and external customer focus management, and identifies gaps within the literature.
- Chapter 3 Methodology, describes the methodology used in this study.
- Chapter 4 Data Analysis, presents the results obtained from the study.
- Chapter 5 Discussion, contains a critical evaluation of the results.
- Chapter 6 Conclusion, provides a conclusion to the study, including recommendations and further research opportunities.

Chapter 2. Literature Review

In this chapter, the author aims to deep into previous pieces of work related to internal customer satisfaction, Employee satisfaction in IT organisations, External customer satisfaction in order to design the path to follow to conduct the present research.

2.1. Internal Customer Satisfaction

Internal customers can be interpreted as individuals that interact into different departments within an organisation that an internal supplier department assists. In this mind, a company can be viewed as a chain of individual links (work units) that are bonded to each other in order to satisfy external customers. Hence, the collaboration between work sub-systems, involving internal customers and internal suppliers, basically should have influence on the firm's ability to meet or (even better) exceed external customers' needs and expectations (Fredendall, Hopkins and Bhonsle, 2005; Jun and Cai, 2010; Finn, Baker, Marshal and Anderson, 1996; Dabholkar and Abston, 2008; Foreman and Money, 1995, Conduit, Matanda and Mavondo, 2014) describe Internal customer service as a two-way interacting process between individuals in different work units of an organisation, in which the internal supplier (the provider) is in charge of responding to their internal customer needs and expectations.

The notion IC satisfaction first appeared into the fore in the TDC (total quality management) literature, where an IC orientation was pursued in order to achieve high efficiency and cost reduction levels objectives (Gummesson, 1991; Lawler, 1994) and is reflected in recent marketing and management literature related to customer experience (Klaus and Maklan, 2012;) and value creation (Mustak, Jaakkola and Halinen, 2013). Internal customer focus or orientation demands committed departments within organisations to view

each other as customers and suppliers part of a whole system, thus improving their ability to manage external customers by learning through practice (Conduit, Matanda and Mavondo, 2001).

By implementing and enforcing IC orientation, organisations influence managers to promote motivation, and so, encouraging employees (Ahmed and Rafiq, 2003), with the purpose of transforming the whole firm into an external customer oriented system (Dibb and Simkin, 2000; Šimberová, 2007). In this sense, IC focus should be part of the organisational culture due to it leads the attitudes and behaviours of the organisation's employees to guarantee the delivery of quality products and/or services to the other employees inside the system (Gounaris, 2008; Lings & Greenley, 2010; Lukas and Maignan, 1996).

Although Internal customer service's vital importance in sustaining competitiveness into organisations, it has received relatively little attention from researchers. In addition, most of the previous research in this area of knowledge has focused more on presenting conceptual frameworks for aiming high internal customer service quality than on conducting deep empirical pieces of work related those pronouncements into the literature (Wisner and Stanley, 1999; Jun and Cai, 2010). Due to the fact that the IC is a final referee of internal service quality, the researcher, through this empirical study, has proposed to contribute to a better understanding of internal customers' perceptions of their satisfaction towards the external customer orientation. Specifically, this investigation has focused on the perception of internal customer satisfaction into an IT organisation and the factors that influence the employee's external customer orientation or mind set.

2.3. Internal Customer satisfaction in IT organisations.

IT industry is one of the most accelerated growing business sectors, contributing to an unprecedented economic growth in India since the since the mid 1980s (Christiana et al, 2014). The rising and prevalence of work-life conflict presents both challenges and opportunities for IT sector professionals. Managers must prioritise and upgrade their competitive skills in order to survive, manage and acclimate themselves efficiently to changing IT industry environments. Christiana et al (2014), also suggested that stress levels between some IT jobs related positions are relatively high because of long working shifts and relinquished holidays. This leads to possible imbalances in work and personal life. In this sense, arises an obligation for organizations to adopt strategies and policies that guarantee acceptable and satisfactory levels of the work environment.

(Pavan and Narasimha Reddy, 2016) state that compensation, training and development are found as parameters of high importance, regarding internal customer satisfaction. Both, private and public IT sector seemed to have adopted efficient approaches in order to balance ICS and their performance. Such as assessing training need analysis, training evaluation, and comparing salaries with the industry market. IT companies implement HRM practices such as employee involvement and engagement practices, training and development practices, employee benefits and compensation practices, managing employee relations to managers and supervisors (Stumpf, 2010).

Internal customer satisfaction is a vital indicator that measures how employees feel about, and also, in what proportion they are contented with it. The satisfaction level of employees is as well associated with the organisation's output levels, thus, it is essential to the success of the firm. In this mind, keeping internal customers satisfied with their jobs should be a

paramount priority within every organization (Pavan and Narasimha Reddy, 2016). Bogdanova et al (2008) and Gürbüz (2009) stated that Human Resources practices aim to find and develop the right human capital in the best possible ways, with the purpose of achieving long term goals. Firms should assure competitive benefits packages and acceptable work environments in order to boost internal customer motivation, satisfaction, and increase their performance.

2.4. Importance of Internal Customer Satisfaction

According to (Amoopour, Hemmatpour and Mirtaslimi, 2014), internal customer satisfaction leads to end user or external customer satisfaction. Internal customers feel more related and engaged to their organisations and thus towards end users. Satisfied employees lead to an increment on organisation performance, thus external customer could feel satisfied and the firm may gain consumer loyalty. Oppositely, unsatisfied and demotivated employees tend to performance mediocrely or irresponsibly. This could be reflected in organisation's performance, and thus on a poorly end user's orientation and/or satisfaction. (Amoopour, Hemmatpour and Mirtaslimi, 2014) have brought important and helpful theory and concepts for the present research. However, it lacks empirical evidence that supports his finding and statements.

Internal customer satisfaction is crucial in terms of the motivation and achievement of healthy and safe work processes. It is inconceivable for a firm to meet external customer needs without considering internal customers' expectations (Jun and Cai, 2010). Consequently, several organisations have started to invest significant amounts of resources in programs in order to develop and increase ICS (Heskett et al., 1997). Thus, It is assumed that ICS must lead to involved and engaged employees, more effective and efficient

work, and increment of general performance (Eskildsen and Dahlgaard, 2000; Ellickson 2002).

2.6. External Customer Orientation

To be successful in the current dynamic and competitive market, researchers believe that external customer orientation is a crucial factor (Ndubisi & et al, 2003). External customer orientation could lead to greater customer loyalty. Thus, through this improved loyalty organisations ensure future turnover, reduce the costs, reduce price elasticity and prevent from losing customers when the possible quality problems may occur. Additionally, positive word of mouth from satisfied customers could lead to reducing costs of new customer's attraction and promote the organization's brand reputation. (Anderson and Fornell, 2000). External customer oriented organisations may effectively anticipate end user's future needs and expectations in order to try among their possibilities to meet their needs and expectations (Ghafari Ashtiani 2008).

Related to the relationship between external customer perception of the service quality offered by the organisation and their satisfaction, some researchers have disputed that service quality is not related to external customer satisfaction considering certain circumstances. For example, Parasuraman et al (1985) found diverse examples, where, even though end users are satisfied by a product/service, they do not perceive that it is thanks to high quality. In this sense, Storbacka et al. (1994, p. 24) also notes that: 'A customer could, therefore, respond to a questionnaire that a particular bank is of high quality, even if this did not mean this customer was satisfied with using the bank. Its interest rates on loans may be too high or it might not fit the customer's preferences for some other reason'. Addressing this argument differently, (Cronin and Taylor, 1992; Oliver, 1980) suggest that a rich service

quality would lead to customer satisfaction, and otherwise.

2.7. Balance between Internal and External Customer Focus

(Conduit et al, 2001), in an earlier work, suggested that employees should be motivated to recognise other co-workers as internal customers, and not only focus on external customer satisfaction. Lings and Greenley (2010) support this idea. Also encourage organisations to balance their external orientation of succeeding customers needs and expectations, with keeping in mind an internal orientation, and thus employees' needs. In contrast, Piercy (1996) states that internal customer focus entails to "internal euphoria", where employees are extremely focused on internal marketing and the organisation's needs, that in fact it gets distracted from the external customer satisfaction. In response to this Lings and Greenley (2010), provides through his findings along with the empirical support that embracing an internal customer orientation does not entail to "internal euphoria". From a marketing perspective, Lings and Greenley studied survey data measuring internal marketing orientation, market orientation. Their questionnaires were tested in order to analyse their psychometric properties. Additionally, a conceptual model was designed and supported by using structural equations modelling and regression analysis.

Internal and external customer orientation has captivated the attention managers, also the vast effort has been invest on the external focus (Grace and La Locono, 2015; Huang and Chen, 2013; and Conduit et al., 2014). Consequently, it is not surprising that managers have also focused their processes on external customer orientation, leaving beside the needs and expectations of internal customers. On the other hand, Feng et al., (2013) state that in organisations are not sufficient with only having focused on internal resources and customers or improving internal processes.

They proposed a model related to new product development (NPD) for improving performance by testing the relationship between organisational external involvement and operational performance, including the role of internal integration. In order to prove the hypotheses about the relationships above, they collected data from 176 Chinese manufacturing companies through a survey, and a structural equation modelling was used in order to test the hypotheses. They found that both customer and supplier involvement have significant effects on internal integration. This internal integration partially mediates the relationship between customer and supplier involvement and operational performance. The concept model designed will serve as a base for the author to create his own conceptual model, this with the pursue of relating the variables to study.

(Conduit et al., 2014) state that processes oriented on external customer satisfaction permits companies to learn from their external environment and markets, and also, to respond effectively to clients by understanding their needs. And also highlights that Internal customers focus is a convenient bridge for connecting employees with end users, and should be considered as a complement of external customer orientation. In other words, internal customer satisfaction should be related to end user orientation.

2.8. Components of Internal Customer Satisfaction

Internal customer satisfaction could be subdivided into five factors or components, Career Development, Relationship between employees and managers, Benefits and compensation schemes, Safe work environment and Engagement (Pavan and Reddy, 2016; Christiana and Rajan 2014). Career Development within either small or big IT organisations is vital area to be

managed by HR department and managers in general, keeping employees knowledge and know-how updated should lead to job satisfaction (Stumpf, 2010). (Zulfqar, Bilal, Affan and Muhammad, 2011; and Lazãr, Osoian and Ratiu, 2010) examined the relationship between HRM practices, such Benefits as Compensation among other practices, and employee's perception of their performance. They conclude that employees perceived their performance and HRM monetary and salary practices as a positive and significant relationship. In this mind, it could be said that Benefits and Compensation should contribute positively to external customer satisfaction.

Singh (2010) examined the dynamic between manager, work-life balance and software professionals. She suggested that managers should create policies of assertive, positive and motivational communication between them and their staff, by promoting staff meetings, communication channels such as e-mail, newsletters, and information packages. Thus, Relationship Manager should have a positive effect on external customer satisfaction.

Wright and Davis (2003) examined the impact of work environment public employees perception on job satisfaction. In particular, the based their analysis on job specificity, routineness, feedback, and human resource development; finally, concluding that work environment indeed leads to changes in levels of job satisfaction. Consequently, it can be said that if work environment has an influence on internal customer satisfaction, it could also influence levels of external customer orientation.

(Pavan and Reddy, 2016) state that employees' satisfaction is essential to guarantee the success of an organization. Inside an organization, a decent level of employee satisfaction is directly related to employee engagement. Thus, managers by promoting and assuring employees' satisfaction, avoid lack of engagement, absenteeism and low productivity (Lazãr et al., 2010).

Moreover, work engagement should have a positive impact on organisational external customer orientation.

2.9. Literature Review Conclusion

After going through the literature revision above, it could be said that there seems to be a possible relationship between internal customer satisfaction and external customer orientation. However, little research has been carried out with the purpose of examining the relationship between this two organisational concepts. Thus, It seems to be a gap in the literature, how exactly are they related and in what magnitude?. In what measure can increment of one of them explain changes in the other one. Therefore, it is necessary, in the context of information technology organisations, to investigate the question of whether the internal customer's satisfaction has a positive relationship to the external customer orientation of the organisation.

2.10. Research Question

The previous literature review helped the researcher to set the theoretical background and the different approaches related to internal customer satisfaction and external customer orientation. According to Hoffman and Ingram (1992), Internal customer satisfaction is an antecedent of external customer-oriented behavior, especially for service-based organisations. Now, considering the theory of social exchange (Homans, 1958), it could be maintain that the service/product provider benefits both externally (e.g. monetary rewards) and internally (e.g. job fulfillment) by satisfying the end user, and that the probability of this is even higher when the employee is in a positive disposition (Boshoff and Allen, 2000). Motowidlo (1984) states that satisfied internal customers are more likely to be in good disposition and,

thus, more likely to behave considerately towards others IC and to deliver exceptional service to ECO (Rogers et al., 1994).

Consequently, as internal customers who experience career development and a positive mood or sensation of being satisfied with their job are more likely to, therefore, act in a positive mode by "going the extra mile" in accomplishing their tasks and to empathize with those who depend upon them to properly fulfil their role. Not surprisingly, Lassk et al. (2004) found that employee job satisfaction is positively associated with internal customer orientation, and as it is closely related to external customer orientation. In this mind, in order to carry out the present piece of work, Internal Customer satisfaction will be subdivided into 5 components, Career development, Benefits and Compensations, Relationship Manager, Work Environment and Work Engagement. In this sense, the research question and secondary questions state:

Is there a positive relationship between internal customer satisfaction and external customer orientation, in IT organisations?.

2.11. Research design

In order to answer the research question, five steps need to be taken into consideration and they should be studied as the following sequence shows:

- Evaluate the effect of career development on external customer orientation.
- Study the effect of benefits and compensations an external customer orientation.
- Analyse the effect relationship manager on external customer orientation.

- Examine the effect work environment on external customer orientation.

- Evaluate the effect of work engagement on external customer orientation.

- Obtain the relationship between internal customer satisfaction and the external customer orientation.

2.12. Development of the Hypotheses

In order to describe the apparent relation or association between the variables to study, a conceptual model was developed by the author. Figure 1 helps to visualise the hypotheses related to the variables to study. Internal customer satisfaction will be represented by five independent variables: career development, benefits and compensations, relationship manager, work environment and work engagement. If the proposed model is correct these 5 variables will have a positive impact on the dependent variable, which is the external customer orientation.

Figure 1. Model of relationship between ICS and ECO
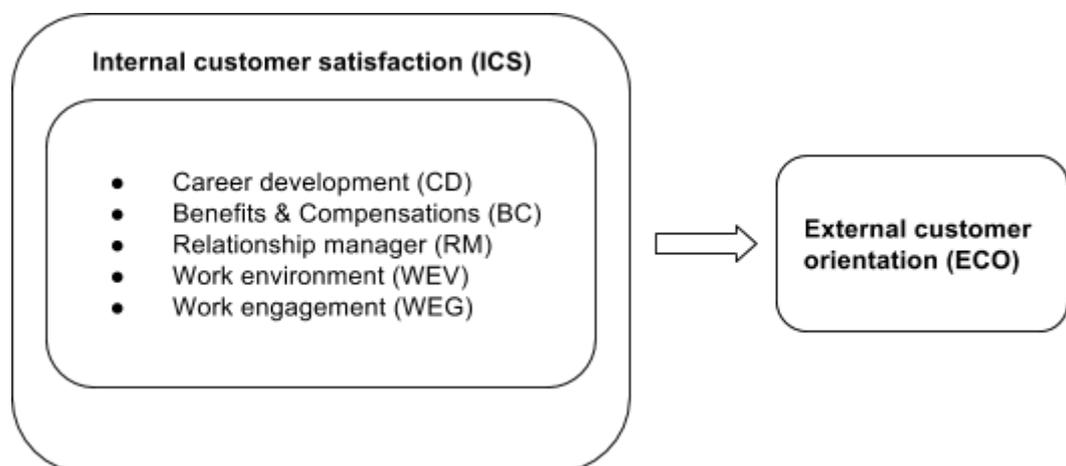
With the purpose of explaining the model described by figure 1 and representative the information mathematically, equation 1 was developed, which depict the possible influence of the five ICS variables on the ECO.

Equation 1: $ECO = \beta_0 + \beta_1(CD) + \beta_2(BC) + \beta_3(RM) + \beta_4(WEV) + \beta_5(WEG) + e$

- $\beta 0$ is constant.
- βi are the regression coefficient of the explanatory or independent variables.
- e is the residual error of regression.
- ECO is considered as the dependent variable in the regression model.

The independent variables used in the model are:
- Career development (CD).
- Benefits & Compensations (BC).
- Relationship manager (RM).
- Work environment (WEV).
- Work engagement (WEG).

In this sense, the following hypotheses were developed by following the conceptual model in Figure 1.

H1: ICS has a significant effect on ECO.

H2: CD has a significant effect on ECO.

H3: BC has a significant effect on ECO.

H4: RM has a significant effect on ECO.

H5: WEV has a significant effect on ECO.

H6: WEG has a significant effect on ECO.

These are the six hypotheses to be evaluated in order to give a solution to the research question, finding the relationship between the internal customer satisfaction and the external customer orientation, in an IT organisation.

Chapter 3. Methodology

A quantitative approach will be carried out in this research. This was assumed to be the most appropriate method in order to examine a sample of 87 employees from the studied organisation, which is part of a specific population, Dublin's IT companies. Moreover, the quantitative approach allows participating individuals to complete their responses quickly rather than extended periods of time required for qualitative research interviews. Finally, this approach will be easy to conduct thanks to the fact that the firm is in an IT organisation, which means that all individuals are familiar with online survey tools. The questionnaire used will address the research questions including the perception of internal customer satisfaction and external customer orientation throughout the organisation, divided into seven sections or scales. Employee information, questions related to perception on career development, benefits and compensations, the relationship between manager and employees, work environment, work engagement and employees' perception of the external customer orientation.

3.1. Origin of data

The necessary data to answer the research question will be obtained from an IT company in Dublin, Ireland. Of which the author has had access thanks to few contacts that currently work for the organisation. The author pretends to gather employees' perceptions of ICS and its described components, and also perceptions of ECO. As it is imperative to obtain and measure data coming from different participants at the same time, and time is a latent limitation, the type of research to considerate will be the cross-sectional one (Saunders et al., 2009). Lastly, is important to consider that by using this method the cost of research can be reduced considerably.

3.2. Philosophical considerations

Due to the nature of the problem, finding a relationship between the internal customer satisfaction and external customer orientation involves social and organisational factors that affect employees and their performance. Additional, while pursuing the mentioned relationship, it is necessary to take in consideration managerial scope that relates internal and external factors of the company. In this mind, ontologically speaking, the philosophy to follow in order to answer the research question will be pragmatism. Pragmatism permit to include different views in order to give an adequate solution to the research problem (Saunders et al., 2009). In the present case, the author considers that the strategy to be used should be both objective and subjective.

With the purpose of gathering data to go through this project and obtain results, two perspectives must be considered: observable phenomena and subjective meanings. Subjective meanings and theories, in order to support employees behaviour, motivation and satisfaction. And observable phenomena view is considered to obtain credible data and facts, having a focus on causalities or relationship between the variables related to internal customer satisfaction and the external customer orientation.

It is important to highlight researcher's view of the role of values in this piece of work. The methodology will involve the study of social and/or human resources theories and approaches. This, in order to design the research instrument and consequently collect the data to be analysed and interpreted. In this mind, values will have a role at the moment to interpret results. The author will adopt both objective and subjective points of view.

The research approach will be a based on testing theory. In other words, a deductive approach. This deductive approach will consist, in linking the information obtained from the respondents to internal customer satisfaction and external customer orientation; in order to move from theory to quantitative data in order to give a solution to the research problem.

3.3. Questionnaire design

A questionnaire will be used to conduct the descriptive research in order to examine the perception and opinions of respondents. By using questionnaires, the researcher is capable to manage a large sample size and low likelihood of distortion of a respondent's answer (Saunders, Lewis and Thornhill, 2003). The author could not find a specific questionnaire within the literature for the study. Thus, the questionnaire will be designed for by the researcher. Self-administered questionnaires will be used and completed online via Google Forms. Due to the nature of the organisation, computer literacy for respondents are familiarised with electronic devices such as computers, tablets and phones. So, technical skills will not be an issue and possibility of achieving the desired responses is high as all employees within the organisation use email and the internet to complete their daily tasks. Self-administered questionnaires such as Survey monkey ones, discard most of the risk associated with respondents answering in a way that is perceived to be socially desirable (Dillman, Smyth and Christian, 2014).

The questionnaire carried out during this study can be found in Appendix 1. Questions labelled Q1-Q3 are in relation to Employee information, Q4-Q6 are in relation to Career development, Q7-Q9 related to Benefits and compensations, Q10-Q12 are in relation to Relationship management, Q13-Q15 are related to Work environment, Q16-Q19 are in relation to Work engagement and Q20-Q23 are in relation to External customer orientation.

All the questions used in this study with the exception of the ones related to the external customer orientation were taken from the Survey Monkey (2017) "SHRM Employee Engagement Survey Template". All the questions, with the exception of Q1-Q3, utilised a Likert Scale. A 5-point Likert (1932) Scale can be used to measure attitudes and/or perceptions of the respondents within the organisation. It is pertinent to highlight that questions per scales did not have any difference in their weight, and they were kept in the same way during the research. Additionally, all surveys found at SurveyMonkey's site are constructed by the organisation, "We've built a suite of products specifically designed to help you collect and understand data from your customers, your employees, or your target market." (SurveyMonkey, 2017).

Based on Feng et al., (2013), the necessary data to give an answer to the research question will be canalised through structured interviews. Thus, questionnaires are to be the research instrument, and they will be created on SurveyMonkey (2017), based on one already made related to employee satisfaction. The author will design and add to the questionnaire the section related to external customer orientation.

Through the questionnaire, employees will be asked about their perceptions related to internal customer satisfaction and its components and external customer orientation. The main channel of distribution of the questionnaires will be via email. The advantage of Google forms application is that selected employees will have access to the questionnaires from computers, mobile phones and tablets.

3.4. Conducting the Survey.

27

As mentioned earlier, the sample size to be the target of the questionnaires will be 87 employees of an IT organisation. The employees come from eight main departments; Administrative, Customer service, Marketing/sales, HR, Finance/Accounting, IT, Operations and R&D. The sample is a very multicultural group, with more than 10 nationalities, according to information obtained from the studied organisation.

Originally, an email was sent to participants informing them of the questionnaire and prompting them to complete it. Previous researchers have found that the timing of reminders for electronic/internet questionnaires is important (Crawford, Couper and Lamias, 2001). A reminder email after two days was sent in order to promote participation and also on the speed and response rate. However, the response rate was quite low for the first week, so the author had to hand over to the participants flyers with the survey information and a Quick Response code (QR) to be scanned, which contained the link to the survey on Google forms. Reading a QR code is simple, it can be read by devices such as tablets or mobile phones equipped with a camera. Users just need to download any of the several applications on Google Store or Itunes (Chang, 2014). Thanks to this action, the rate of responses to the second week increased in comparison to the first one. The questionnaire was sent on Tuesday (8 August 2017) and it was closed on Friday (18 August 2017), the respondents had almost 3 weeks of time to fill the survey on Google Forms.

Previous to the definitive survey process or full-scale study being operated, a pilot study was necessary to be taken. Fink (2003) suggests that the minimum number of respondents for a pilot study considering the current context should be 10 people. A random selection of 10 respondents was selected for the pilot study. There were some changes made to the questionnaire in order to use an adequate scale, and also few modifications

to diminished confusion from the employees at the moment or executing the survey. First, the answer scale was substituted from a multiple selections one to a Likert scale, this would facilitate the analysis of data. Finally, the survey heading was revised in order to make clear to the reader the information related to the study to be carried out.

Even though the responses for access' approval seemed to be quite promising, there was a warranty of getting admittance into the organisations. Actually from a number of five organisations, only one gave the permission to proceed with the study.

3.5. Ethical Considerations

Considering the data safety, no respondent names were documented, no company name was registered or comments collected. Only the author possess access to the survey results. Additionally, participants were properly informed that the study is anonymous, the reason why the research is being carried out, and also that, the data might be used for further study. Besides this points of interest, there are no other ethical implications to consider.

3.6. Analysing the Data

The statistical software package used to analyse the data from the questionnaire is called GNU PSPP, and the statistical formulas applied during the study can be found in Appendix 2. The first step in this study is to analyse the internal consistency or reliability of the six scales created; Career development, Benefits and compensations, Relationship manager, Work environment, Work engagement and External customer orientation. Internal consistency occurs when the correlation between responses to each question from the questionnaire is examined and can be measured using Cronbach's

alpha (Saunders, Lewis and Thornhill, 2003). Cronbach's alpha well-known for being a reliable method to determine internal consistency between questionnaires' scales (Gliem and Gliem, 2003). Depending on the results of the reliability tests, questionnaires' scales are validated once obtained an acceptable Cronbach's alpha result of (>0.7). This may involve removing certain questions that do not contribute to an acceptable Cronbach alpha result using "Reliability when Item Deleted" within GNU PSPP. Due to the questionnaire was designed for this study, there is a possibility that it will be required to create a reliable set of scales depending on the individual result of the test related to each component of the ICS.

3.7. Assessing Normality Distribution

In order to complement the analysis and data obtained from the possible correlation and regression between the dependent variable and the independent variable, it will be necessary to assess if the data obtained from the survey questions follow or not a Normal distribution. GNU PSPP counts with the Kolmogorov-Smirnov Normality test, and also descriptive statistic such as histogram distributions. Once normality or deviation from normality has been detected, a suitable statistical test will be used to test the hypothesis depending on the number of groups to be examined.

3.8. Identification of Appropriate Tests of Difference between groups

Below, Table 1. Presents the possible options to be followed in order to test the difference between the data obtained from the survey scales. The significance level of the test to be used to accept or reject the null hypothesis will be 5% or 0.05. For values under 0.05, the null hypothesis will be rejected. For values above 0.05, the null hypothesis will be accepted.

Table 1. Tests of Differences between Groups of Data

Comparison	Parametric (Means)
Differences between means of two independent groups	Independent Samples t-Test (Assumes Normality)
Differences between means of more than two independent groups	One way ANOVA (Assumes Normality)

3.9. Limitations

Firstly, getting access to organisations' data related to employees satisfaction and their perception of external customer orientation; It is not an easy task. In fact, the author contacted 5 different organisation, but only one of them accepted to proceed with the study. Must of firms consider this information as private and also unshareable, whether they collect the data or not. As a consequence of this matter, the author opted for focus the collection of information from employees perspective instead of from organisational indicators. Secondly, two important factors that limit the present project are time and expenses. Time restriction appears due to the author must submit the finished research by the end of his Masters, which has a length of one year. Regarding expenses, the author is limited due to he does not count with any kind of research funding.

Additionally, the research will possess relatively low statistical predictive power due to its low level of representativeness. Representativeness is the degree to which the sample is similar to the essential characteristics to its whole population. Moreover, the sample should reflect the most important features of the model by which it is generated (Kahneman and Tversky, 1972). The whole population related to the study is every employee of an IT

organisation located in Dublin Ireland. In this mind, the sample of only 87 employees from only one company should not be representative. Consequently, the study will generate a low level of generalisability. In other words, the results obtained will be suitable to understand the phenomena related to the study only inside the objective organisation; results will not be able to explain behaviours or phenomena related to the whole population or different ones (Gheoghe, 2015).

Chapter 4. Analysis

The results have been presented into three main categories; the first category shows the results of the reliability of the six scales; Career development, Benefits and compensation, Relationship manager, Work environment, Work engagement and External customer orientation. The second category presents the results from the exploration and statistical analysis of six scales in relation to their variances. With respect to both of these categories, a presentation of the characteristics of each of the variables under consideration is presented and the results of all statistical tests and an assessment of their data arrangement requirements are also presented. Finally, the third category shows the statistical analysis related to the possible correlation and relationship between the Internal customer satisfaction components and the External customer orientation and the construction of the ECO equation based on CR, BC, RM, WEV and WEG.

4.1. Demographic information.

Table 2. Demographic data (n=41)

Variable	Subcategory	Value
Gender	Male	63.4%
	Female	36.6%
	Total	**100%**
Age	20 to 24	9.8%
	25 to 29	17.1%
	30 to 34	68.3%
	35 to 39	4.9%
	Total	**100%**

4.2. Scale Reliability Results

This subsection presents the results from tests of reliability for each of the six scales under consideration in this study, which are: Career development (CR), Benefits and compensation (BC), Relationship manager (RM), Work environment (WEV), Work engagement (WEG) and External customer orientation (ECO). There were 41 valid responses throughout 23 items or questions that contributed to the overall perception of the mentioned scales, see Table 1 below.

TABLE 3: CRONBACH ALPHAS FOR DIFFERENT SCALES (N=41)

Scale	Cronbach Alpha	Number of Items
CR.	0.76	3
BC.	0.87	3
RM.	0.77	3
WEV.	0.75	3
WEG.	0.86	4
ECO.	0.88	4

All the values of Cronbach Alpha obtained on GNU PSPP are higher than 0.70; which means that under this test, it could be said that the questionnaire is validated and reliable (Saunders, Lewis and Thornhill, 2003).

4.3. Exploration and statistical analysis of scales.

In this subsection, the author presents the statistical analysis of the variables related to scales. Normality tests and variance tests will be developed in order to understand the statistical nature of the variable of interest.

4.3.1. Perception of Career Development Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 4. Histograms of the distributions of Q4, Q5, Q6 and CR are shown in Figures 2, 3, 4 and 5 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q4: Question 4. I am satisfied with my opportunities for professional growth.

Q5: Question 5. My organisation is dedicated to my professional development.

Q6: Question 6. I am satisfied that I have the opportunities to apply my talents and expertise.

CR: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q4, Q5 and Q6.

Figure 2. Q4's Histogram

Std. Dev = 0.8
Mean = 3.6
N = 41.00
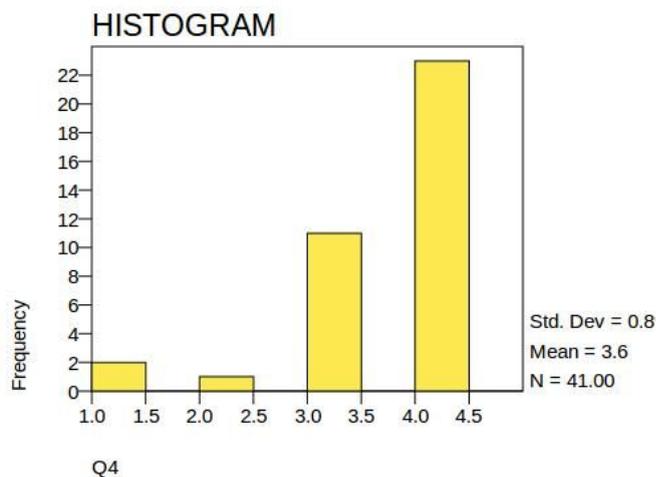
Figure 3. Q5's Histogram
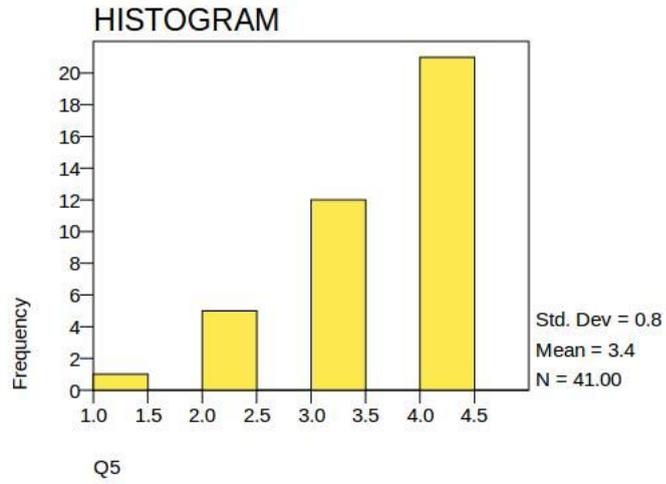
Figure 4. Q6's Histogram
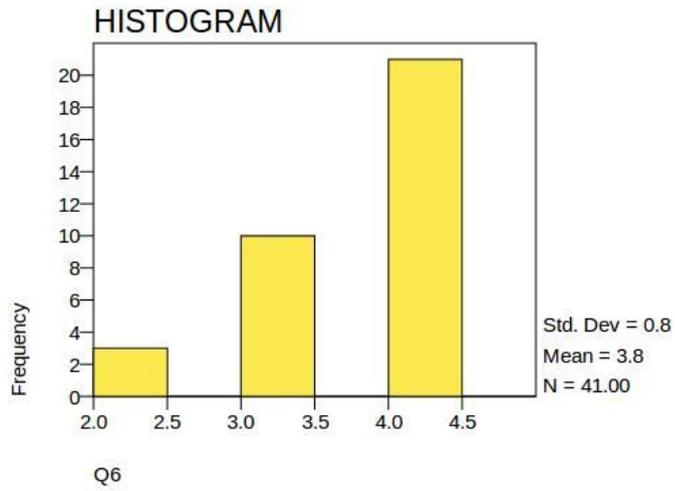
Figure 5. CR's Histogram
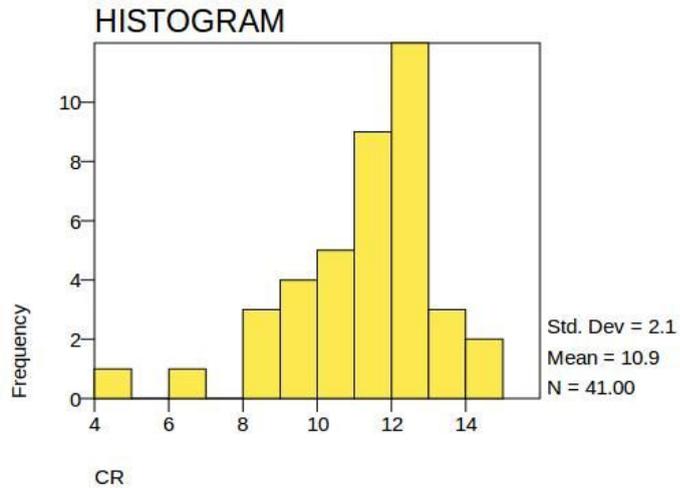
The associated descriptive statistics of interest, for the four variables (Q4, Q5, Q6 and CR), are shown in Table 4.

Table 4. Descriptives of Career Development Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q4	41	3.63	0.89	1	5
Q5	41	3.44	0.87	1	5
Q6	41	3.78	0.82	2	5
CR	41	10.85	2.12	4	15

The results of tests of normality, for the variables Q4, Q5, Q6 and CR are presented in Table 5. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable CR, due to its $p = 0.098$, considering a level of significance of 0.05 or 5%. However, the rest of the variable fail the test since all their p values were smaller than 0.05.

Table 5. Normality test for Career Development test

Kolmogorov-Smirnov Test		Q4	Q5	Q6	CR
N		41	41	41	41
Normal Parameters	Mean	3.63	3.44	3.78	10.85
	Std. Deviation	0.89	0.87	0.82	2.12
Most Extreme Differences	Absolute	0.32	0.3	0.29	0.19
	Positive	0.24	0.21	0.22	0.15
	Negative	-0.32	-0.3	-0.29	-0.19
Kolmogorov-Smirnov Z		**2.04**	**1.93**	**1.85**	**1.19**
Asymp. Sig. (2-tailed)		**0**	**0.001**	**0.001**	**0.098**

4.3.2. Perception of Benefits and Compensation Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 6. Histograms of the distributions of Q7, Q8, Q9 and BC are shown in Figures 6, 7, 8 and 9 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q7: Question 7. I am satisfied with my overall compensation and benefits package.

Q8: Question 8. I am compensated fairly relative to my local market.

Q9: Question 9. I am satisfied with my total benefits package.

BC: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q7, Q8 and Q9.

Figure 6. Q7's Histogram
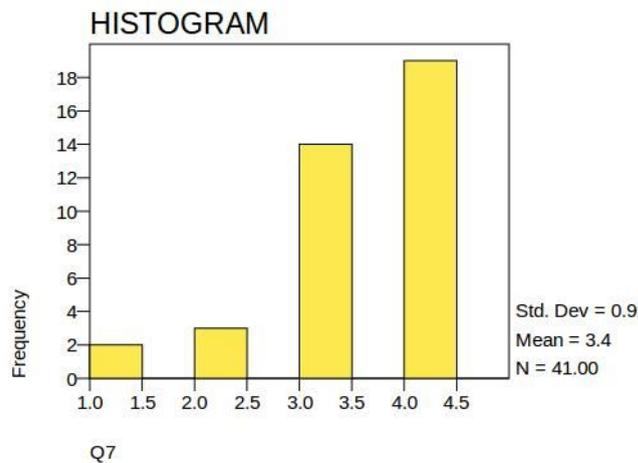
Figure 7. Q8's Histogram
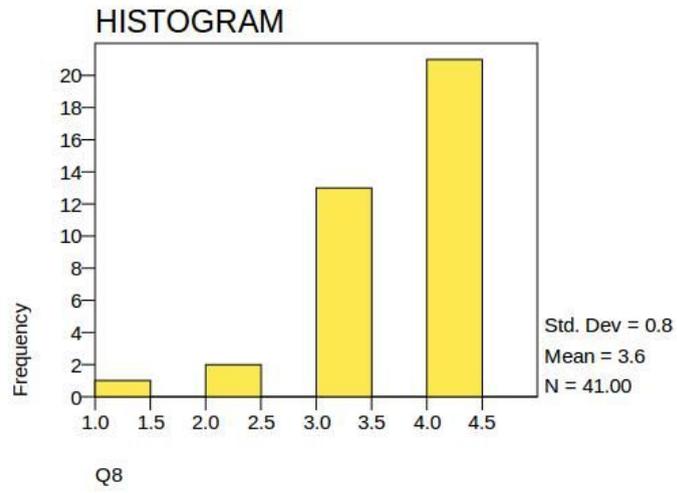


Figure 8. Q9's Histogram
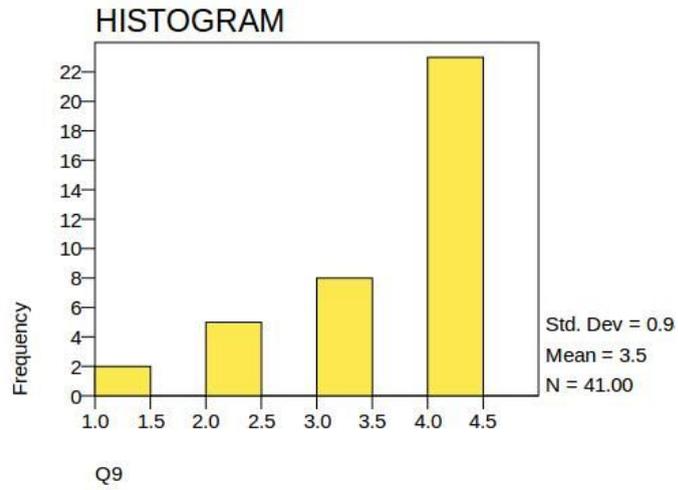
Figure 9. BC's Histogram
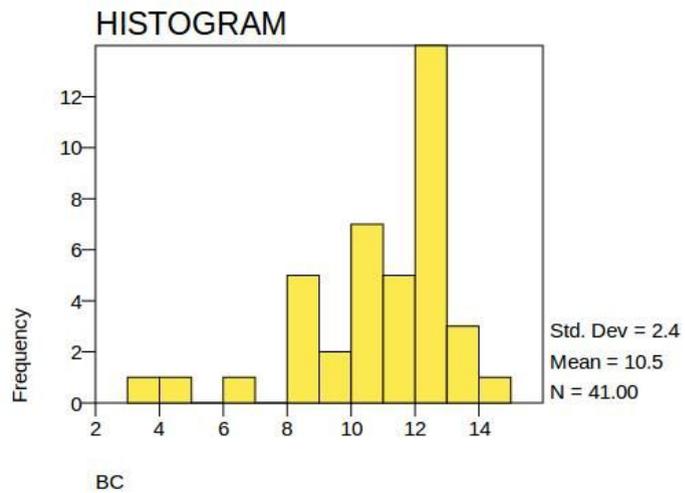
The associated descriptive statistics of interest, for the four variables (Q7, Q8, Q9 and BC), are shown in Table 6.

Table 6. Descriptives of Benefit and Compensation Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q7	41	3.44	0.92	1	5
Q8	41	3.61	0.83	1	5
Q9	41	3.49	0.98	1	5
BC	41	10.54	2.45	3	15

The results of tests of normality, for the variables Q7, Q8, Q9 and BC are presented in Table 7. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable CR, due to its $p = 0.091$, considering a level of significance of 0.05 or 5%. However, the rest of the variable fail the test since all their p values were smaller than 0.05.

Table 7. Normality test for Benefit and Compensation test

Kolmogorov-Smirnov Test		Q7	Q8	Q9	BC
N		41	41	41	41
Normal Parameters	Mean	3.44	3.61	3.49	10.54
	Std. Deviation	0.92	0.83	0.98	2.45
Most Extreme Differences	Absolute	0.26	0.29	0.33	0.19
	Positive	0.2	0.22	0.23	0.15
	Negative	-0.26	-0.29	-0.33	-0.19
Kolmogorov-Smirnov Z		1.7	1.86	2.14	1.21
Asymp. Sig. (2-tailed)		0.004	0.001	0	0.091

4.3.3. Perception of Relationship Management Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 8. Histograms of the distributions of Q10, Q11, Q12 and RM are shown in Figures 10, 11, 12 and 13 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q10: Question 10. Communication between senior leaders and employees is good in my organisation.

Q11: Question 11. Management within my organisation recognises strong job performance.

Q12: Question 12. I am able to make decisions affecting my work.

RM: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q10, Q11 and Q12.

Figure 10. Q10's Histogram
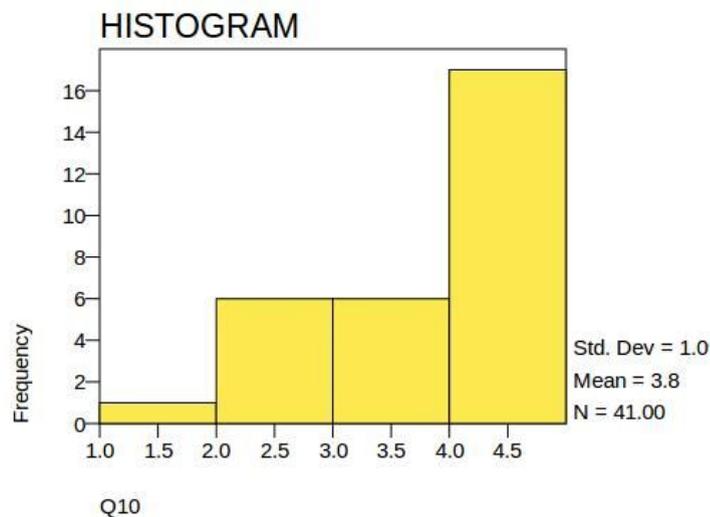
**Figure 11. Q11's Histogram**
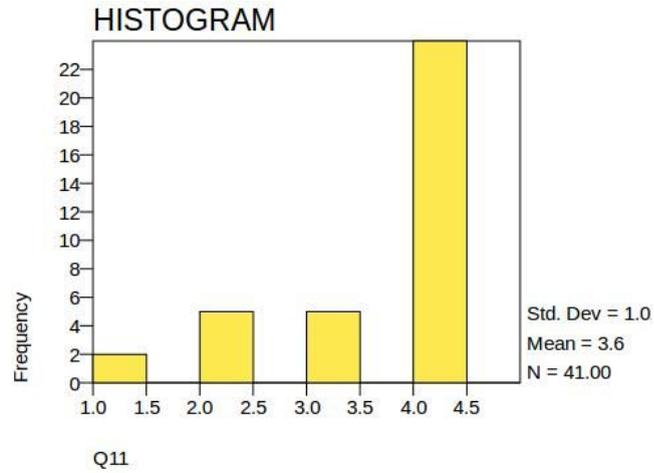
Figure 12. Q12's Histogram
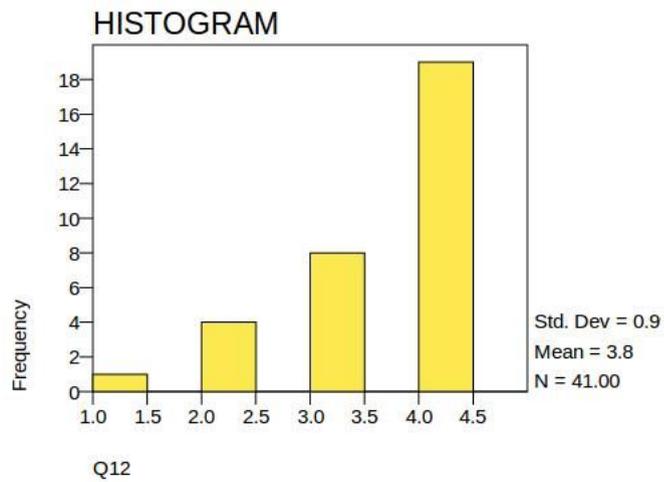
Figure 13. RM's Histogram
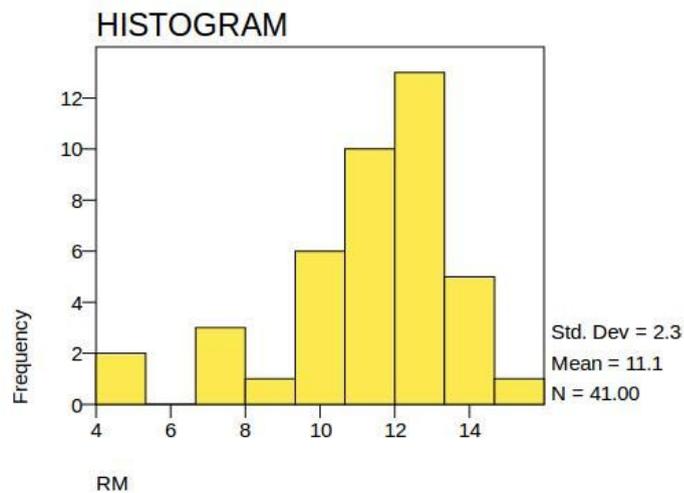
The associated descriptive statistics of interest, for the four variables (Q10, Q11, Q12 and RM), are shown in Table 8.

Table 8. Descriptives of Relationship Management Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q10	41	3.76	1.09	1	5
Q11	41	3.61	1.02	1	5
Q12	41	3.76	0.99	1	5
RM	41	11.12	2.38	5	15

The results of tests of normality, for the variables Q10, Q11, Q12 and RM are presented in Table 9. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable RM, due to its $p = 0.095$, considering a level of significance of 0.05 or 5%. However, the rest of the variable fail the test since all their p values were smaller than 0.05.

Table 9. Normality test for Relationship Manager test

Kolmogorov-Smirnov Test		Q10	Q11	Q12	RM
N		41	41	41	41
Normal Parameters	Mean	3.76	3.61	3.76	11.12
	Std. Deviation	1.09	1.02	0.99	2.38
Most Extreme Differences	Absolute	0.27	0.36	0.28	0.19
	Positive	0.14	0.23	0.18	0.09
	Negative	-0.27	-0.36	-0.28	-0.19
Kolmogorov-Smirnov Z		**1.74**	**2.28**	**1.79**	**1.2**
Asymp. Sig. (2-tailed)		**0.003**	**0**	**0.002**	**0.095**

4.3.4. Perception of Work Environment Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 10. Histograms of the distributions of Q13, Q14, Q15 and WEV are shown in Figures 14, 15, 16 and 17 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q13: Question 13. My organisation has a safe work environment.

Q14: Question 14. I am satisfied with the workplace flexibility offered by my organisation.

Q15: Question 15. I am satisfied with the culture of my workplace.

WEV: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q13, Q14 and Q15.

Figure 14. Q13's Histogram

Std. Dev = 0.9
Mean = 4.2
N = 41.00
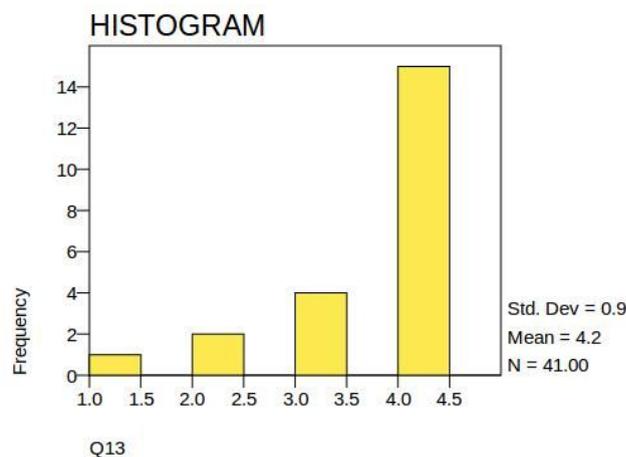
**Figure 15. Q14's Histogram**
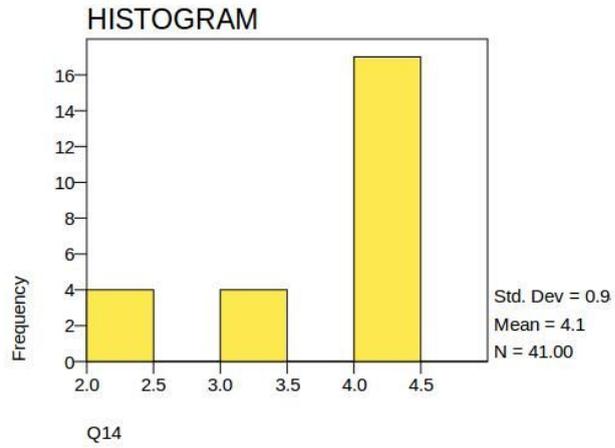
**Figure 16. Q15's Histogram**
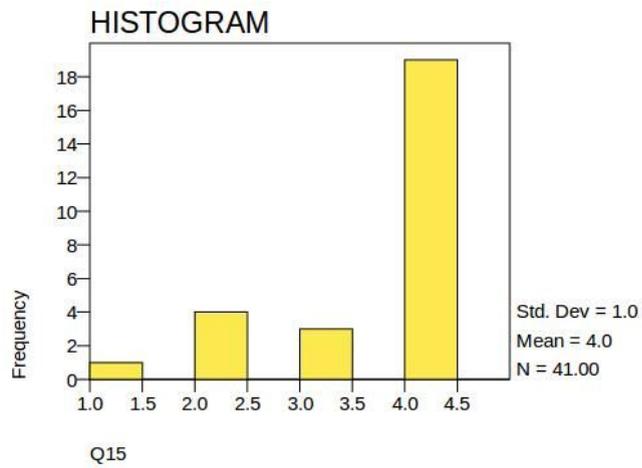
Figure 17. WEV's Histogram
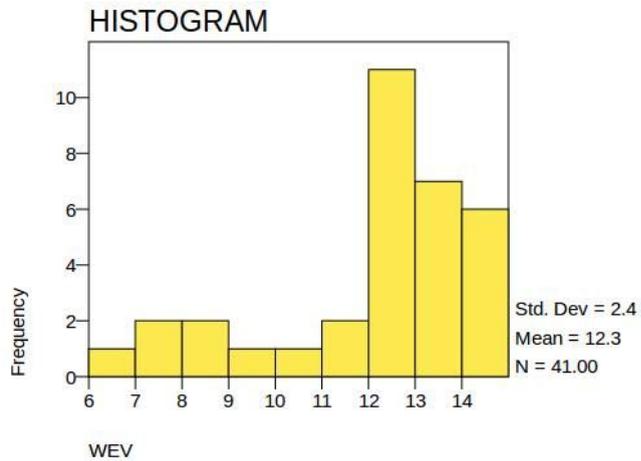
The associated descriptive statistics of interest, for the four variables (Q13, Q14, Q15 and WEV), are shown in Table 10.

Table 10. Descriptives of Work Environment Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q13	41	4.2	0.98	1	5
Q14	41	4.1	0.94	2	5
Q15	41	4	1.02	1	5
WEV	41	12.29	2.41	6	15

The results of tests of normality, for the variables Q13, Q14, Q15 and WEV are presented in Table 11. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable WEV, due to its $p = 0.012$, considering a level of significance of 0.01 or 1%. However, the rest of the variable fail the test since all their p values were smaller than 0.01.

Table 11. Normality test for Work Environment test

Kolmogorov-Smirnov Test		Q13	Q14	Q15	WEV
N		41	41	41	41
Normal Parameters	Mean	4.2	4.1	4	12.29
	Std. Deviation	0.98	0.94	1.02	2.41
Most Extreme Differences	Absolute	0.26	0.26	0.3	0.23
	Positive	0.21	0.17	0.16	0.13
	Negative	-0.26	-0.26	-0.3	-0.23
Kolmogorov-Smirnov Z		1.65	1.69	1.95	1.49
Asymp. Sig. (2-tailed)		0.005	0.004	0.001	0.016

4.3.5. Perception of Work Engagement Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 12. Histograms of the distributions of Q16, Q17, Q18, Q19 and WEG are shown in Figures 18, 19, 20, 21 and 22 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q16: Question 16. I am inspired to meet my goals at work.

Q17: Question 17. I am determined to give my best effort at work each day.

Q18: Question 18. Employees proactively identify future challenges and opportunities.

Q19: Question 19. I understand how my work impacts the organisation's business goals.

WEG: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q16, Q17, Q18 and Q19.

Figure 18. Q16's Histogram
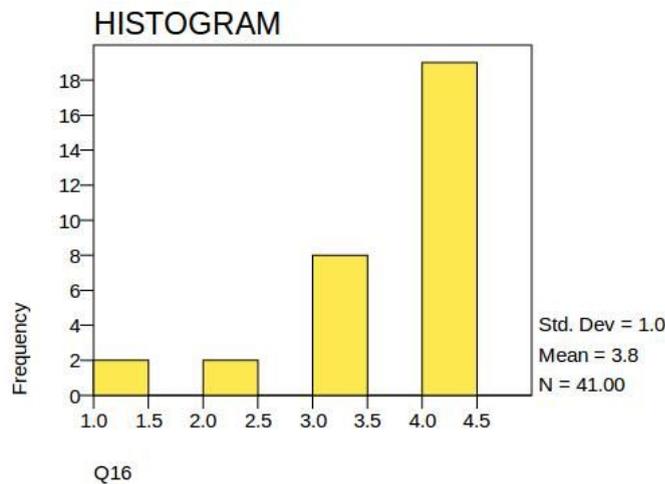
**Figure 19. Q17's Histogram**
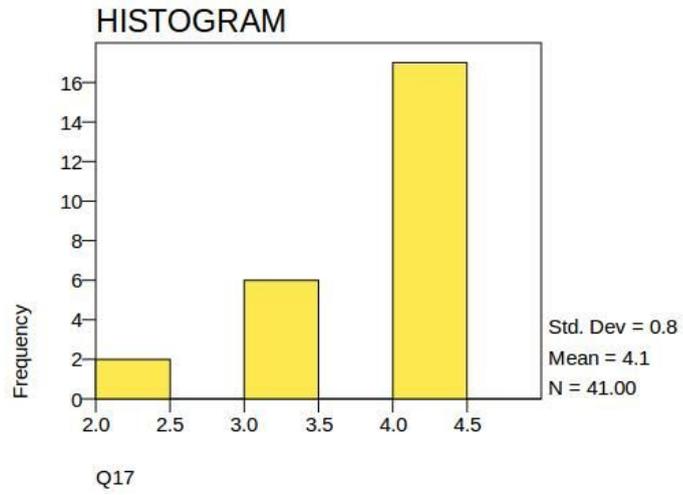
Figure 20. Q18's Histogram
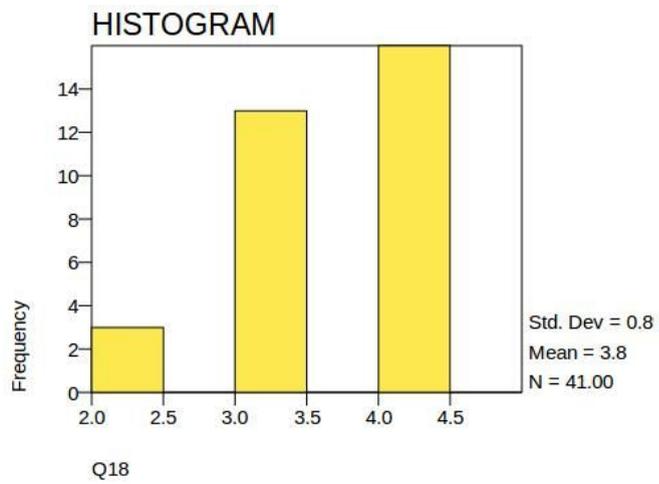
**Figure 21. Q19's Histogram**
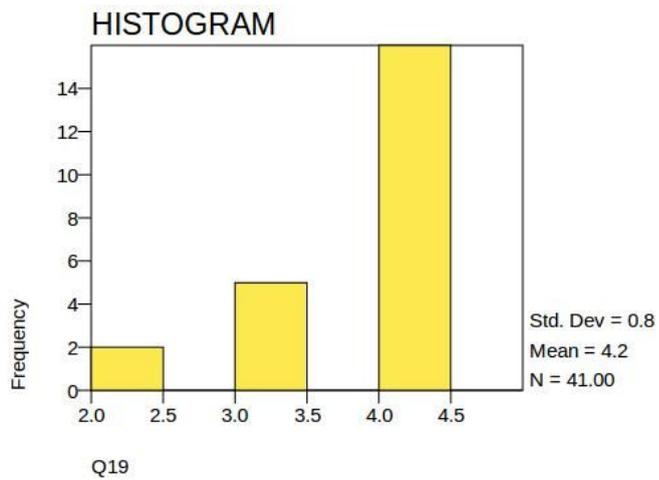
Figure 22. WEG's Histogram
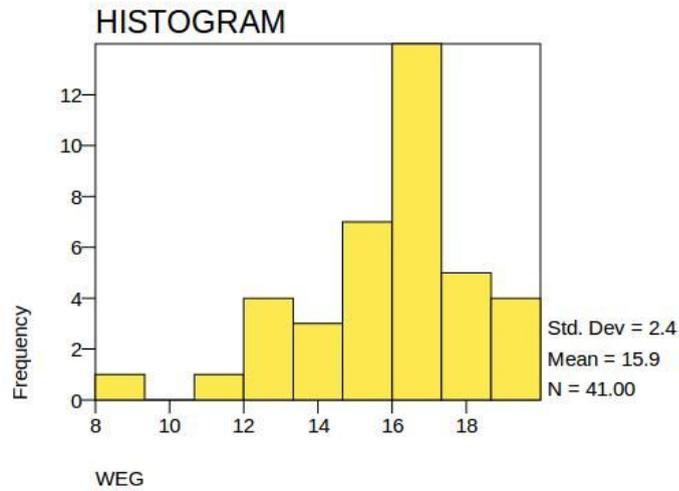
The associated descriptive statistics of interest, for the five variables (Q16, Q17, Q18, Q19 and WEG), are shown in Table 12.

Table 12. Descriptives of Work Engagement Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q16	41	3.8	1.03	1	5
Q17	41	4.15	0.85	2	5
Q18	41	3.76	0.89	2	5
Q19	41	4.22	0.85	2	5
WEG	41	15.93	2.43	9	20

The results of tests of normality, for the variables Q16, Q17, Q18, Q19 and WEG are presented in Table 13. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable WEV, due to its $p = 0.472$, considering a level of significance of 0.05 or 5%. However, the rest of the variable fail the test since all their p values were smaller than 0.05.

Table 13. Normality test for Work Engagement test

Kolmogorov-Smirnov Test		Q16	Q17	Q18	Q19	WEG
N		41	41	41	41	41
Normal Parameters	Mean	3.8	4.15	3.76	4.22	15.93
	Std. Deviation	1.03	0.85	0.89	0.85	2.43
Most Extreme Differences	Absolute	0.28	0.24	0.22	0.26	0.13
	Positive	0.18	0.18	0.19	0.18	0.07
	Negative	-0.28	-0.24	-0.22	-0.26	-0.13
Kolmogorov -Smirnov Z		**1.81**	**1.52**	**1.4**	**1.66**	**0.85**
Asymp. Sig. (2-tailed)		**0.002**	**0.013**	**0.029**	**0.005**	**0.472**

4.3.6. Perception of External Customer Orientation Results

This substudy considered a total of 41 employees of an IT organisation. A case summary is presented in Table 14. Histograms of the distributions of Q20, Q21, Q22, Q23 and ECO are shown in Figures 23, 24, 25, 26 and 27 respectively. In every case, the horizontal axis represents employee perception and the vertical axis depicts frequency. Where:

Q20: Question 20. Job satisfaction has a positive impact on my performance.

Q21: Question 21. The good practice in my job contributes to the whole organisation performance.

Q22: Question 22. I realised that my role is an important part of a whole system.

Q23: Question 23. I understand that my job has an impact on the External Customer Satisfaction.

ECO: This variable represents the addition of the three previous distributions. Due to the questionnaire has none specific weight on any question, the author just performed a simple addition of the results from Q20, Q21, Q22 and Q23

**Figure 23. Q20's Histogram**
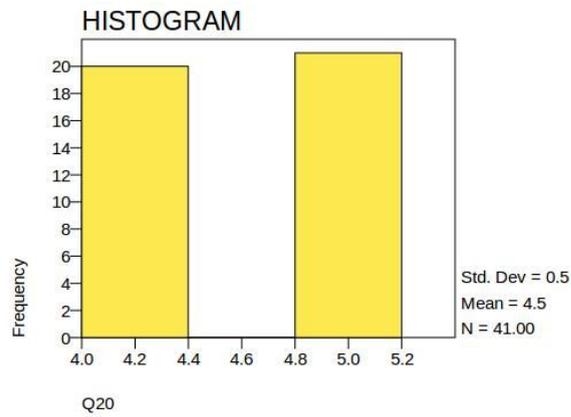
Figure 24. Q21's Histogram
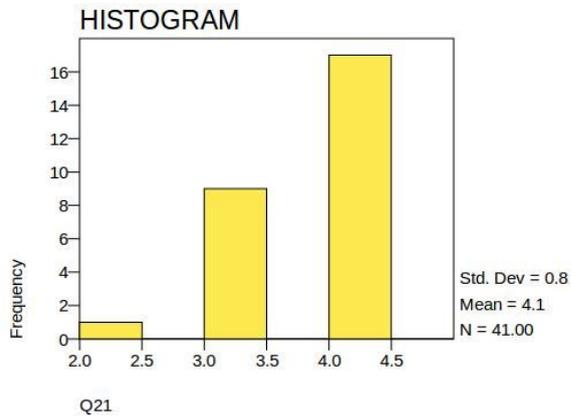
Figure 25. Q22's Histogram

Q22
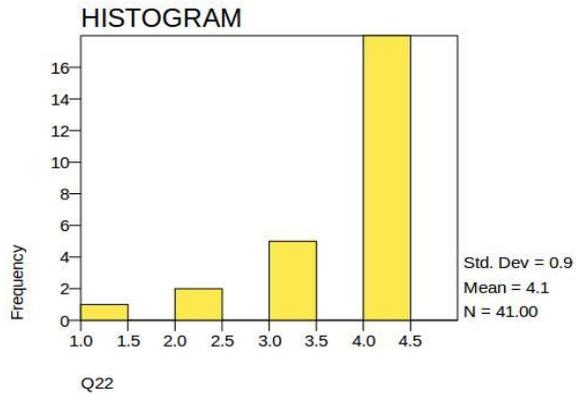
Figure 26. Q23's Histogram

Q23
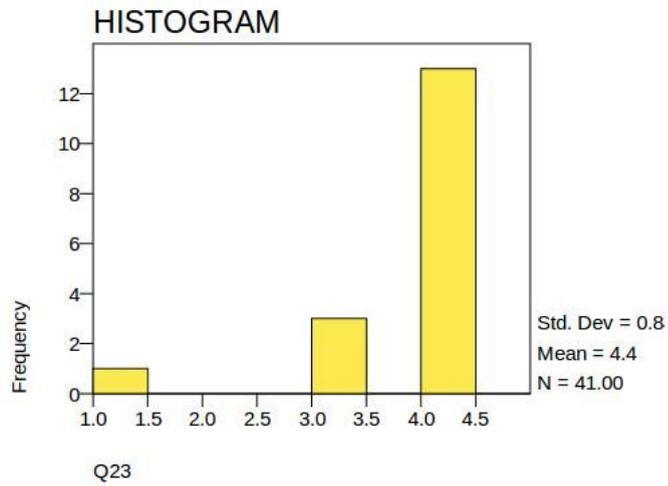
Figure 27. ECO's Histogram

ECO
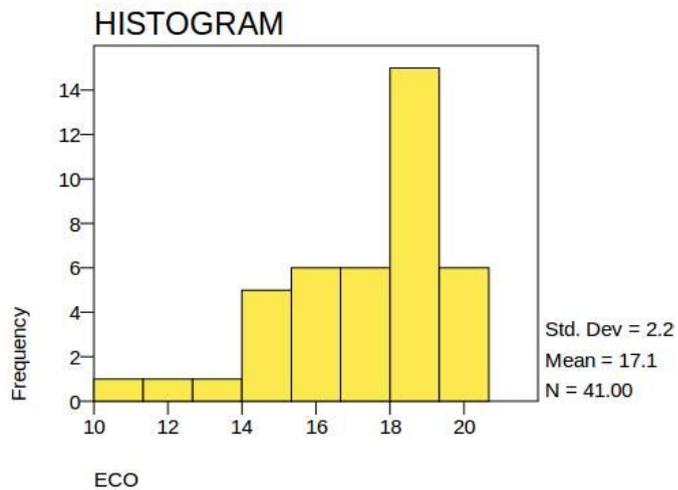
The associated descriptive statistics of interest, for the five variables (Q20, Q21, Q22, Q23 and ECO), are shown in Table 14.

Table 14. Descriptives of External Customer Orientation Scale

Variable	N	Mean	Std Dev	Minimum	Maximum
Q20	41	4.51	0.51	4	5
Q21	41	4.07	0.82	2	5
Q22	41	4.07	0.96	1	5
Q23	41	4.44	0.84	1	5
ECO	41	17.1	2.29	10	20

The results of tests of normality, for the variables Q20, Q21, Q22, Q23 and WEG are presented in Table 15. The outputs of the Kolmogorov-Smirnov Test of normality indicate that there are no significant deviations from normality on variable WEV, due to its p = 0.2, considering a level of significance of 0.05 or 5%. However, the rest of the variable fail the test since all their p values were smaller than 0.05.

Table 15. Normality test for External Customer Orientation test

Kolmogorov-Smirnov Test		Q20	Q21	Q22	Q23	ECO
N		41	41	41	41	41
Normal Parameters	Mean	4.51	4.07	4.07	4.44	17.1
	Std. Deviation	0.51	0.82	0.96	0.84	2.29
Most Extreme Differences	Absolute	0.34	0.22	0.27	0.33	0.17
	Positive	0.33	0.19	0.17	0.25	0.1
	Negative	-0.34	-0.22	-0.27	-0.33	-0.17
Kolmogorov-Smirnov Z		**2.21**	**1.41**	**1.76**	**2.14**	**1.06**
Asymp. Sig. (2-tailed)		**0**	**0.026**	**0.002**	**0**	**0.2**

4.4. Correlation between ICS components and ECO

From the table 16, it can be concluded that none of the internal customer satisfaction components has no high correlation or presence of multicollinearity, which should be the standard rule of thumb 70% (Wilson VanVoorhis and Morgan, 2007). The results from correlation analysis indicate that external customer orientation is negatively and weakly correlated with benefit and compensations. On the other hand, the rest of variables are positively correlated to ECO; the correlation between ECO and both CR and WEV is weak. A moderate correlation was found between ECO and both relationship management and work engagement, which also are the significant correlations with a p value smaller than 5%.

Table 16. Correlation ICS Components vs. ECO

		CR	BC	RM	WEV	WEG	ECO
CR	Pearson Correlation	1					
	Sig. (2-tailed)						
BC	Pearson Correlation	0.56	1				
	Sig. (2-tailed)	0					
RM	Pearson Correlation	0.69	0.37	1			
	Sig. (2-tailed)	0	0.016				
WEV	Pearson Correlation	0.45	0.36	0.58	1		
	Sig. (2-tailed)	0.003	0.022	0			
WEG	Pearson Correlation	0.27	0.1	0.52	0.41	1	
	Sig. (2-tailed)	0.082	0.538	0	0.008		
ECO	Pearson Correlation	0.14	-0.01	0.39	0.15	0.54	1
	Sig. (2-tailed)	0.375	0.931	**0.011**	0.339	**0.001**	

4.5. Multilinear regression and Variance Analysis

The regression analysis results reveal the following observations. The value of R square depicts that 34% variability in the external customer orientation can be explained by the components of variables of internal customer satisfaction; see table 17. Additionally, the value of R represents a slightly strong correlation between ECO and the dependent variables as a whole. The multilinear regression results highlights that only work engagement has a significant effect on ECO, having a p value smaller than 5%. The rest of the variables have some effect on ECO, although not a statistically significant effect, due to their p value are above the 5% of significance.

Table 17. Multilinear regression ICS vs. ECO

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	10.42	2.5	0	**4.16**	**0**
WEG	0.43	0.16	0.45	**2.76**	**0.009**
WEV	-0.15	0.17	-0.16	**-0.94**	**0.356**
RM	0.35	0.22	0.36	**1.58**	**0.123**
BC	-0.06	0.16	-0.07	**-0.41**	**0.688**
CR	-0.13	0.23	-0.12	**-0.56**	**0.579**
R	R Square	Adjusted R Square	Std. Error Of the Estimate		
0.59	**0.34**	**0.25**	**1.98**		

Table 18 highlights the F-Test value of 3.66 and p-values less than 0.05 level of significance, related to the analysis of variance of ICS components and ECO. This indicates the very well fit of the regression model. In other words,

that the regression explains more about ECO than the residuals.Thus, the hypothesis (*H1: ICS has a significant effect on ECO.*) is supported.

Table 18. Analysis of Variances (ANOVA). ICS vs. ECO

	Sum of Squares	df	Mean Square	F	Sig.
Regression	72.03	5	14.41	3.66	**0.009**
Residual	137.58	35	3.93		
Total	209.61	40			

Table 19 presents the result of the contrast of the research hypotheses. According to the regression the analysis there is a significant effect of ICS as a whole on the ECO, this supports H1; Thus, it can be said that the model proposed by the author in figure 1 is significant.

However, after analysed every component of ICS by its own the study depicted that only WEG has a significant effect on ECO, which support H6. H4 is partially supported due to only presented significant effect through correlation analysis but no significance on regression. The rest of the hypotheses were rejected (H2, H3, H5) by not being able to obtain statistical and significant base to support them.

Table 19. Contrast of Hypotheses

Hypothesis	Correlation p-value	Regression p-value	Level of significance	Conclusion
H1: ICS has a significant effect on ECO.	/	*0.009*	*0.05*	Supported.
H2: CD has a significant effect on ECO.	*0.375*	*0.579*	*0.05*	Rejected.
H3: BC has a significant effect on ECO.	*0.931*	*0.688*	*0.05*	Rejected.
H4: RM has a significant effect on ECO.	*0.011*	*0.123*	*0.05*	Partially supported.
H5: WEV has a significant effect on ECO.	*0.339*	*0.356*	*0.05*	Rejected.
H6: WEG has a significant effect on ECO	*0.001*	*0.009*	*0.05*	Supported.

4.6. The Equation of the relationship between Internal Customer Satisfaction and External Customer Orientation.

As shown above, in table 17 the results of regression analysis can also be depicted in the regression equation, based on the regression coefficients.

Equation 2:

$$ECO = 10.42 - 0.13(CD) - 0.06(BC) + 0.35(RM) - 0.15(WEV) + 0.43(WEG) + (1.98)$$

Regression coefficients:

$\beta_0 = 10.42, \ \beta_1 = -0.13, \ \beta_2 = -0.06, \ \beta_3 = 0.35, \ \beta_4 = -0.15, \ \beta_5 = 0.43$

Based on the above equation and its coefficient values, and regression p-values, it can be inferred that career development (CD) and Benefit and Compensation (BC) and Work Environment (WEV) have a negative and not

significant influence on External Customer Orientation (ECO), whereas Relationship Management (RM) has positive but not significant influence on ECO. As mentioned above, only Work Engagement has a significant influence on ECO.

4.7. Demographic analysis

The associated descriptive statistics of interest, related to CR, BC, RM, WEV, WEG and ECO classified by gender, are shown in Table 20

Table 20. Descriptive of ICS Components and ECO by Gender

	Q1	N	Mean	Std. Deviation	S.E. Mean
ECO	Male	26	16.92	2.33	0.46
	Female	15	17.4	2.26	0.58
CR	Male	26	10.77	2.21	0.43
	Female	15	11	2	0.52
BC	Male	26	10.77	2.47	0.48
	Female	15	10.13	2.45	0.63
RM	Male	26	11.08	2.26	0.44
	Female	15	11.2	2.65	0.68
WEV	Male	26	12.31	2.29	0.45
	Female	15	12.27	2.69	0.69
WEG	Male	26	16.15	2.89	0.57
	Female	15	15.53	1.3	0.34

A T-test was conducted in order to determine if there was any difference in the employee's perception of the previous variables studied. Table 21 highlights p- values for each of the variables, which are considerably higher than the significance level (5%). Thus, there is no sufficient statistical

evidence to assure that exists a significant difference between the male and female perception of the variable in question.

Table 21. Variables Difference in Variance By Gender

						95% Confidence Interval of the Difference	
	F	Sig.	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
ECO	0.49	0.487	**0.527**	-0.48	0.75	-1.99	1.04
CR	0.59	0.446	**0.741**	-0.23	0.69	-1.63	1.17
BC	0.12	0.735	**0.43**	0.64	0.8	-0.98	2.25
RM	0.39	0.537	**0.876**	-0.12	0.78	-1.7	1.46
WEV	0.46	0.503	**0.959**	0.04	0.79	-1.56	1.64
WEG	10.16	0.003	**0.438**	0.62	0.79	-0.98	2.22

Table 22. ANOVA. ICS Components and ECO Perception by Age.

		Sum of Squares	df	Mean Square	F	Sig.
CR	Between Groups	16.16	3	5.39	1.22	0.315
	Within Groups	162.96	37	4.4		
BC	Between Groups	7.55	3	2.52	0.4	0.754
	Within Groups	232.64	37	6.29		
RM	Between Groups	6.21	3	2.07	0.35	0.791
	Within Groups	220.18	37	5.95		
WEV	Between Groups	18.52	3	6.17	1.07	0.375
	Within Groups	213.96	37	5.78		
WEG	Between Groups	14.96	3	4.99	0.83	0.485
	Within Groups	221.82	37	6		
ECO	Between Groups	4.79	3	1.6	0.29	0.834
	Within Groups	204.82	37	5.54		

Above Table 22 presents the analysis of variances (ANOVA) of the ICS components and ECO perceptions from employees classified by their age range; 20 to 24, 25 to 29, 30 to 34 and 35 to 39. As it can be seen on Table 22 every p- value related to every variable is higher than the significance level (5%). Thus, it can be said that there is no sufficient statistical evidence to conclude that there are differences in the perceptions variances by age range.

Chapter 5. Discussion

The questionnaire used as tool in this research "Perception of Internal Customer Satisfaction and External Customer Orientation" had a response rate of 47.1% (41 responses/87 employees), which resulted slightly higher than the approximate average response rate to obtain from organisations as predicted by Baruch and Holtom (2008), which has a value of 35.7%. Consequently, there was a lack of response of 52.9% (46 non responses/87 employees). Cook, Heath and Thompson (2000) state that the representativeness of the sample is more crucial than response rate while conducting a survey research; unless mentioned responses are representative of the population. In this case, both representativeness and generalisability are low, and the results can not be extrapolated to other population (Kahneman and Tversky, 1972).

Rogelberg et al., (2000) found in their research, that internal customers who refuses to respond to employee survey requests have higher intentions of quitting, less commitment towards the organisation; additionally, they might be concerned about poruse of the data collection and how it would be handled. A similar study found that the main reason why 33% of the employees did not respond the job satisfaction survey was that "they were too busy" and consequently the survey was not considered relevant nor important (Fenton-O'Creevy, 1998). Even though there is no further data collected and related to nonresponses, the author considers that the reason why some employees from the study IT organisation

The main objective of the present research is to analyse the perception of internal customer satisfaction and its relationship with employees perception of the external customer orientation within an IT organisation. The trigger for this research was the gap in the literature related to internal customer

satisfaction and its possible effects on the organisational external customer orientation, from the employee's' perspective (Wisner and Stanley, 1999; Jun and Cai, 2010; Amoopour, Hemmatpour and Mirtaslimi, 2014). Much has been researched about external customer orientation and its importance in today's globalised and highly competitive markets. However, fewer papers examine the internal customer focus and how it might have an influence on the end user orientation, and so, the whole organisation performance.

As it was mentioned in the literature review section, currently, IT industry is one of the most accelerated growing business sectors; thus, IT organisations must face arduous challenges in order to survive (Christiana et al,. 2014). Part of those challenges are related to the management of the internal resources, and in this case, internal customers. Considering the internal customer focus and promoting motivation, and so, encouraging employees to give the extra mile, could have an influence on the way employees perceive external customer orientation (Ahmed and Rafiq, 2003; Dibb and Simkin, 2000; Šimberová, 2007). In this sense, Managers should assure that internal customer orientation is part of the organisational culture; because it might lead to improvements in attitudes and behaviours of the organisation's employees, and so, guarantee the delivery of quality products and/or services to the other employees inside the system and promote external customer orientation (Gounaris, 2008; Lings & Greenley, 2010; Lukas and Maignan, 1996).

According to (Pavan and Reddy, 2016; Christiana and Rajan 2014), internal customer satisfaction can be subdivided into five components, Career Development, Relationship between employees and managers, Benefits and compensation schemes, Safe work environment and Engagement. In this mind, the author proposed a model or equation in which Internal Customer Satisfaction (Broken Down into its five components) should have a positive influence on External Customer Satisfaction (see Figure 1 and Equation 1).

5.1. Career Development.

Stumpf (2010) states that in IT organisations Career Development is an aspect of HR management that can not be neglected. It is paramount that IT firms and its managerial staff locate effort in keeping employees knowledge and know-how updated, in order to face dynamism into the industry. Additionally, this motivates employees and should lead to job satisfaction (Stumpf, 2010) and moreover external customer orientation (Amoopour, Hemmatpour and Mirtaslimi, 2014).

With the purpose of proceed with the study, the component Career Development (CR) was analysed as the addition of the distribution obtained from the Questions 4, 5 and 6 from the survey. See Appendix 1. The resulted distribution tended to a Normal distribution by obtaining a p-value higher than 5% (see Table 5), CR (Mean=10.85, Standard deviation=2.12). According to literature, CR component should have a positive and significant influence on ECO. However, the correlation analysis showed that there is a weak correlation between both variables (0.14); moreover, the test was not significant due to the p-value obtained from the analysis is higher than 5% (see Table 16).

5.2. Benefits and Compensation.

According to the literature review, benefits and compensation packages must be thoroughly implemented by managers. Employees perceive a relationship between their performance and HRM monetary practices. Consequently, it could be said that Benefits and Compensation have a relationship with employees satisfaction, and so, it also should contribute positively to external customer orientation (Zulfqar, Bilal, Affan and Muhammad, 2011; Lazãr, Osoian and Ratiu, 2010).

In order to progress with the study, the component Benefit and Compensations (BC) was analysed as the addition of the distribution obtained from the Questions 7, 8 and 9 from the survey. See Appendix 1. The resulted distribution tended to a Normal distribution by obtaining a p-value higher than 5% (see Table 7), BC (Mean=10.54, Standard deviation=2.45). According to literature, BC component should have a positive and significant influence on ECO. However, the correlation analysis showed that there is excessively weak and negative correlation between both variables (-0.01); moreover, the test was not significant due to the p-value obtained from the analysis is higher than 5% (see Table 16).

5.3. Relationship Manager.

In order to promote a positive work relationship between managers and employees, it should be taken in consideration policies of effective communication and the adequate channels between the two parts; motivational and inclusive activities should be carried out in order to guarantee internal customer satisfaction Singh (2010). Employees motivation it is also related to the way they come along with their managers and supervisor. Thus, based on both literature and the model proposed by the author, Relationship Manager should have a positive effect on external customer satisfaction.

Along the data analysis chapter, the component Relationship Manager (RM) was analysed as the addition of the distribution obtained from the Questions 10, 11 and 12 from the survey. See Appendix 1. The resulted distribution tended to a Normal distribution by obtaining a p-value higher than 5% (see Table 9), RM (Mean=11.12, Standard deviation=2.38). According to literature, RM component should have a positive and significant influence on ECO. Actually, the correlation analysis showed that there is a moderate correlation between both variables (0.39); moreover, the test resulted to be significant

due to the p-value obtained from the analysis is smaller than 5% (see Table 16).

5.4. Work Environment.

Wright and Davis (2003) stated that there is an effect on internal customer satisfaction originated from employee's work environment perception. In particular, they based their analysis on job specificity, routineness, feedback, and human resource development. They concluded that actually, work environment leads to changes in levels of job satisfaction. Consequently, based on the model proposed by the author, it can be said that if work environment has an influence on internal customer satisfaction, it could also influence levels of external customer orientation.

With the purpose of proceed with the study, the component Work Environment (WEV) was studied as the addition of the distribution obtained from the Questions 13, 14 and 15 on the survey. See Appendix 1. The resulted distribution tended to a Normal distribution by obtaining a p-value higher than 1% (see Table 11), WEV (Mean=12.29, Standard deviation=2.41). According to literature, WEV component should have a positive and significant influence on ECO. However, the correlation analysis showed that there is a weak correlation between both variables (0.15); moreover, the test was not significant due to the p-value obtained from the analysis is higher than 5% (see Table 16).

5.5. Work Engagement.

(Pavan and Reddy, 2016) argued that internal customer satisfaction is essential in order to achieve the organisational success. Internal customer satisfaction is directly related to employee engagement. In this sense, managers and supervisors might divert problems related to lack of

engagement, absenteeism and low productivity by promoting and assuring employees' satisfaction (Lazãr et al., 2010). Consequently, work engagement should have a positive impact on organisational external customer orientation.

In order to proceed with the study, the component Work Engagement (WEG) was analysed as the addition of the distribution obtained from the Questions 16, 17, 18 and 19 on the survey. See Appendix 1. The resulted distribution tended to a Normal distribution by obtaining a p-value higher than 5% (see Table 13), WEG (Mean=15.93, Standard deviation=2.43). According to literature, WEG component should have a positive and significant influence on ECO. Actually, the correlation analysis showed that there is a slightly strong correlation between both variables (0.54); moreover, the test resulted to be significant due to the p-value obtained from the analysis is smaller than 5% (see Table 16).

5.6. Internal Customer Satisfaction and External Customer Orientation.

Hoffman and Ingram (1992) state that Internal customer satisfaction is a previous and necessary step in order to create employee's culture towards the external customer, especially in service-based firms, such as IT organisations. Motowidlo (1984) affirm that satisfied internal customers are more likely to be disposition and performance positively towards their internal customers, and so, setting the bases in a direction to the external customer orientation (Rogers et al., 1994). Consequently, In order to describe the latent relation or association between the variables of interest (CR, BC, RM, WEV, WEG and ECO) a conceptual model was developed by the author. See Figure 1.

With the purpose of finding the relationship between the mentioned variables, the author conducted a multilinear regression analysis, from which could be obtained the following;

From Table 17, it can be extracted the value of R square, depicting that 34% variability in the external customer orientation can be explained by the components of variables of internal customer satisfaction. Moreover, the value of R represents a slightly strong correlation between ECO and the dependent variables as a whole, having a value of 0.59. The multilinear regression results highlight that only work engagement has a significant effect on ECO, having a p value smaller than 5%. The rest of the variables have some effect on ECO, although they do not possess statistic significant effect, due to their p value are above the 5% of significance.

The final equation of external customer satisfaction has the following arrangement;

$$ECO = 10.42 - 0.13(CD) - 0.06(BC) + 0.35(RM) - 0.15(WEV) + 0.43(WEG) + (1.98)$$

By observing the function and also considering the p-values obtained after the regression analysis, it can be inferred that career development (CD) and Benefit and Compensation (BC) and Work Environment have a negative and not significant influence on External Customer Orientation (ECO), whereas Relationship Management (RM) has positive but not significant influence on ECO. Only Work Engagement possess a strong and significant relationship.

After realising the multilinear regression analysis, it can be said that there is a significant relationship between Internal customer satisfaction and the external customer orientation, at least coming from the Work Engagement factor of ICS.

5.7. Gender and ECO perception.

As a manner of additional analysis, the author realised two tests of the variance in order to understand if there was any difference between the perception of ICS and ECO based on gender and range of age. Table 21 presents the results from a T-test in which all the variables from the study were analysed in order to detect differences in their variances produced by gender perspective. As it can be noticed, the p-values related to every variable are higher than 5% level of significance. Thus, there is no sufficient statistical evidence to conclude that there are differences between male and female perception of each variable.

Table 22 depicts the analysis of variance related to the perception of every variable in this study broken down by a range of ages, 20 to 24, 25 to 29, 30 to 34 and 35 to 39. Similarly to the gender analysis, every p-value related to each variable is higher than 5% level of significance, thus there is no statistical evidence to conclude that there is the difference in employees perceptions of variables considering their ages.

5.8. Limitations

The final results showed that in fact there is a relationship between internal customer satisfaction and external customer orientation. However, GNU PSPP only counts with linear and multilinear regression analysis; the author considers this a limitation because exist other types of regressions such as logarithmic regression, also quadratic and cubic regression among others. Thus the analysis could have been more robust if those options would have been applied to the data.

The fact that only one organisation was studied and due to that the number of responses was only 41, makes the analysis weak regarding predictive power; in other words, the study has a low level of representativeness and generalisability. The sample only can explain phenomena related to the studied organisation. Moreover, it can not represent the whole population, which is Dublin's IT industry.

Additionally, the process of gaining access to Dublin's IT organisations and obtain the necessary data was a burden. Must of firms consider employees perception of internal matters as private and also unshareable. Time was also a considerable restriction, due to the author must submit the finished research by the end of his Masters.

Chapter 6. Conclusion

The present piece of work was conducted in order to contribute to closing the gap in the literature. External customer and external customer focus or orientation have been studied by several researchers since the beginnings of the Total Quality Management philosophy. Since that moment this area of knowledge has been taking more importance as years have passed. On the contrary, Internal customer orientation and Internal customer satisfaction have been an area of knowledge has been neglected by researchers. Nowadays, there are few investigations that depict the importance of the internal customer satisfaction, and additionally, how powerful is this focus when it is implemented along with external customer orientation. However, few have fluence external customer orientation.

The aim of this research or the main objective was to find the relationship between internal customer satisfaction and the external customer satisfaction. In order to do this the internal customer satisfaction concept was broken down into five factor or components; Career development, Benefits and compensations, Relationship manager, Work environment and Work engagement. Once subdivided the Internal customer satisfaction, and based on that, the author designed a model in which relates the five internal customer satisfaction components to the external customer satisfaction. This, in turn, was translated into a function where the dependent variable was the external customer orientation and the independent variables were the internal customer satisfaction components.

The population to study was Dublin's IT industry, and the sample was a company comprehended in total by 87 employees. In order to collect the necessary data to give life to the proposed variables, the used tool to reach the respondents was a questionnaire divided into seven scales;

demographic, and other six focused on Career development, Benefits and compensations, Relationship management, Work environment, Work engagement and External customer orientation respectively. The mentioned questionnaire was validated under Alpha Cronbach test of reliability. Consequently, the data was analysed counting only with 41 responses in total.

A descriptive analysis was conducted in order to discern the distribution of the variables in question. Therefore, in order to understand how related the variables were, a correlation analysis was carried out. Only two of the five variables resulted to be significantly correlated, Relationship management with a correlation indicator of 0.39 and a p-value of 0.011; and Work engagement with a correlation indicator of 0.54 and a p-value of 0.001.

In order to understand in what measure the independent variables can explain differences in ECO variance, a multilinear regression analysis was conducted. The results of regression analysis depicted a value of R square of 34%, which means that changes on the significant variables can explain 34% of chances in the ECO variance. The only significant variable obtained from the analysis was Work engagement, obtaining a regression coefficient of 0.45 and a p-value of 0.009.

A secondary analysis was carried out, and none related to the research hypotheses. However, they analysis resulted interesting to the author. Two test of difference of variances was conducted to analyse the possible difference in employees perception of the study variables from a gender and range age point of view. The first one was a T-test involving the study variables and gender point of view. The result was that any of the variables were statistically different from each other from the gender perspective, in other words, it could be said that men and women inside the organisation

have a similar perception of the variables analysed. Similarly, event occurred when the author conducted an Analysis of Variance (anova) tests in order to find differences in the perceptions of the variables considering the different ranges of ages. After obtained the results, there was not sufficient statistical evidence to prove that there were differences in employees perceptions according to their ranges of ages.

6.1. Implications

Employee satisfaction is a broad area of knowledge just to reduce it into five components, independent variables could be included in the model, such as stress or position into the organisation for instance.

As managerial implications; it is evident that there is a relationship between internal customer satisfaction and external customer orientation. Thus, the author suggests organizational manager focus also on employees satisfaction, turn that satisfaction into an Internal customer satisfaction in order to improve internal systems and processes aiming to catalyse the growth of external customer orientation among the employees.

6.2. Recommendations for further research

Since only one organisation participate in the study, and thus, the size of the sample was only 87 employees, which later turned into 41 responses; conducting a similar study with a larger sample, and so a larger rate of response, it will make that study statistically more robust. The greater the sample the greater the predictive power of the study. Consequently, this would increase the representativeness and the generalisability.

Additionally, a more complete statistic software should be used in order to submit the data under differents types of regressions, with the purpose of depicting which one could fit better into the data, and so, explain better the model proposed. Or going even further and obtain data from external customer satisfaction and find the relationship between ICS and ECS.

It would be interesting to incorporate new variables into the internal customer satisfaction concept, such as work-life balance, stress at work, etc. Also, the author recommends going further in analysing differences in perception regarding gender, age, nationality, level of education among others.

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Appendix 1

Perception of Internal Customer Satisfaction and External Customer Orientation.

As part of my Masters in Management with National College of Ireland, I am completing a study on how Internal Customer Satisfaction could have an impact on employees commitment, and also, on External customer Orientation in IT Organisations. As part of this, I would kindly ask you to take some time to complete this survey. Your contribution will be invaluable to my research and I appreciate you taking the time to complete this.

The responses received will be anonymous and confidential. Your name will not be collected at any point. You can withdraw from this survey at any time. The survey should take less than 5 minutes to complete. If you have any questions, please feel free to contact me: x16108469@student.ncirl.ie

There are 23 questions in this survey

Employee information

Q1. What is your gender?

(Mark only one option)

- Female
- Male
- Prefer not to say

Q2. What is your age?

(Mark only one option)

- 20 to 24
- 25 to 29
- 30 to 34
- 35 to 39
- 40+

Q3. What is your job role?

(Mark only one option)

- Administrative
- Customer Service
- Marketing/Sales
- H.R.
- Finance/Accounting
- IT
- Operations
- R&D
- Other:

Career development.

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5.*

Q4. I am satisfied with my opportunities for professional growth.

Q5. My organisation is dedicated to my professional development.

Q6. I am satisfied that I have the opportunities to apply my talents and expertise.

Benefits and Compensations

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5.*

Q7. I am satisfied with my overall compensation and benefits package.

Q8. I am compensated fairly relative to my local market.

Q9. I am satisfied with my total benefits package.

Relationship Management

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5*.

Q10. Communication between senior leaders and employees is good in my organisation.

Q11. Management within my organisation recognises strong job performance.

Q12. I am able to make decisions affecting my work.

Work Environment

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5*.

Q13. My organisation has a safe work environment.

Q14. I am satisfied with the workplace flexibility offered by my organisation.

Q15. I am satisfied with the culture of my workplace.

Work Engagement

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5*.

Q16. I am inspired to meet my goals at work.

Q17. I am determined to give my best effort at work each day.

Q18. Employees proactively identify future challenges and opportunities.

Q19. I understand how my work impacts the organisation's business goals.

External Customer Orientation

Please choose the appropriate response for each item: *Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree; Strongly Agree = 5.*

Q20. Job satisfaction has a positive impact on my performance.

Q21. The good practice in my job contributes to the whole organisation performance.

Q22. I realised that my role is an important part of a whole system.

Q23. I understand that my job has an impact on the External Customer Satisfaction.

Submission of Thesis to Norma Smurfit Library, National College of Ireland

Student name: Jesús Gómez   **Student number:** 16108469

School: NCI, School of Business   **Course:** MSc. in Management

Degree to be awarded: Master of Science in Management

Title of Thesis: Relationship between Internal Customer Satisfaction and the External Customer Orientation in an IT Organisation.

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This signed form must be appended to all hard bound and electronic copies of your thesis submitted to your school.