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VALUE-BASED PRICING OF ICT SERVICES AT CITIUSNET LTD.

Thesis

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<p>Tämä opinnäytetyö tehtiin CitiusNet Oy:lle Kajaanisssa Suomessa. Tavoitteena oli tutkia arvopohjaista hinnoittelua, ICT-palveluiden arvon määrittämistä ja kuinka varmistaa että uudet palvelut ovat tuottavia palveluntoimittajan näkökulmasta. Lisätavoitteena oli määrittää arvo-ajurit, jotka asiakkaat tuntevat tärkeiksi.</p> <p>Opinnäytetyön teoreettinen osuus koostuu kirjallisuudesta koskien arvoketjua, arvoketjun käyttöä IT:ssä, palvelun arvottamista, arvo-ajureita, sitä miten asiakkaat ymmärtävät arvon, arvonmuodostumista ITIL V3:n mukaan, palvelun laatua, hinnoittelumalleja, hinnoittelu strategioita ja miten toteuttaa IT-palveluiden arvopohjainen hinnoittelu.</p> <p>Tutkimus koostui CitiusNet Oy:n asiakkaiden puolirakenteellisista teemahaastatteluista. Haastatteluiden tavoitteena oli tutkia asiakkaan ymmärtämää arvoa palvelussa ja palvelun arvoajureita. Haastattelun kysymykset perustuivat olemassa olevaan kirjallisuuteen.</p> <p>Opinnäytetyö keskittyi kysymyksiin "Mitä asiakkaat ymmärtävät palvelussa arvona?" ja "Voiko CitiusNet Oy perustaa hinnoitteluaan asiakkaiden näkemykseen ja heidän arvoihin?" Vastaukset kysymyksiin löytyivät tehdyn tutkimuksen teorian että käytännön kautta.</p> <p>Opinnäytetyön tuloksena, useita palvelun arvoa nostavia komponentteja tunnistettiin ICT-palveluiden arvopohjaista hinnoittelua varten. Lisätutkimusta ja arvopohjaisen hinnoittelun tapaustutkimusta ehdotettiin CitiusNet Oy:lle. CitiusNet Oy voi käyttää tätä työtä tulevien tutkimusten pohjana.</p>	
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<p>This thesis was commissioned by the CitiusNet Ltd at Kajaani, Finland. The objective was to research value-based pricing, how to define value of ICT services and how to ensure that new services are profitable from the service provider's point of view. Additional objective was to define the value-drivers that customers feel important.</p> <p>The theoretical part of the thesis consisted of literature on value chain, use of value chain in IT, service valuation, value-drivers, how customers perceive value, value creation in ITIL V3, service quality, pricing models, pricing strategies and how to implement value-based pricing for IT services.</p> <p>The study consists of semi-structured thematic interviews of CitiusNet Ltd.'s customers. The aim of the interviews is to research the perceived value of the service for the customer, and the value-drivers of the service. Questions of the interview were based on existing literature.</p> <p>The thesis concentrated on the questions "What do the customers perceive as value in the service?" and "Can CitiusNet Ltd. base its pricing to the view of customers and their values?" The answers to those questions were found from the theory and the practice of research.</p> <p>As an outcome of the thesis, several value-adding components were identified for value-based pricing of ICT services. Further research and case study of value-based pricing was suggested to CitiusNet Ltd. CitiusNet Ltd. will be able to utilize this thesis in future research.</p>	
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PREFACE

“Your task is not to foresee the future, but to enable it.”

–Antoine de Saint-Exupéry, *The Wisdom of the Sands* (1948)

This thesis was made as proof that even simple thing like pricing can be a complex strategic issue for any company in today's service-oriented world. It has been an odd quest of technically oriented person to the world of cost, value and business. To make something profitable is easy, but to enable long-term customer relationships with right kind of pricing is much harder. As told by one of my instructing teachers, foreseeing the future is impossible. As an answer for him, I hope this thesis can enable profitable future.

The subject of this thesis changed while I was writing it, but I find value-based way of thinking close to my heart. Personal experience gained while working with small and medium-sized businesses have taught me that for the customer everything will feel expensive, if the costs are not based upon something. It's been hard, but interesting to research what are these values that customers find meaningful. Results of this thesis strengthen my beliefs that right kind of pricing is one of the most important strategic questions that every company should make. This research has also given me new knowledge for the challenges that future will bring.

First, I would like to thank my boss and colleague, Harri Karjalainen, for granting me this opportunity to improve myself by studying. I'd also like to thank my supervising teachers: Turo Kilpeläinen, principal of Kajaani University of Applied Sciences, Anas Al Natsheh and Pekka Nokso-Koivisto, head teachers of our programme, for their hard work and guidance. My special thanks go to my student colleagues for all the good times and the discussions, not to mention the never ending support, we shared together. In the end, I would like thank my family and friends for the understanding and the support given for me during last two years. I couldn't have done this without all of you.

Enabling the future, now.

At Kajaani 06.06.2010

Toni Keränen

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1 INTRODUCTION

In the 1980's UK government instructed Central Computer and Telecommunication Agency (CCTA), now known as Office of Government Commerce (OGC) to develop a standard approach for efficient and effective delivery of Information Technology (IT) services. The result was the development and publication of the Information Technology Infrastructure Library (ITIL). ITIL is collection of set concepts and best practices found across the range of IT service providers. It offers a systematic approach for managing IT services, IT development and IT operations with a quality. (Van Bon J., de Jong A., Kolthof A., Pieper M., Tjassing R., van der Veen A. & Verheijen T.; 2009)

ISO/IEC 20000 is the first worldwide standard specifically aimed at IT Service Management. It describes an integrated set of management processes for the effective delivery of services to the business and its customers. It is aligned with and complementary to the process approach defined within ITIL. (www.isoiec20000certification.com; 2010)

Both ITIL V3 and ISO/IEC 20000 are tools for making the quality of the service better, but they do not clearly tell how to measure value of services or how to set price for services.

In, ITIL value of service from customer's perspective consists of two core components: utility and warranty. Utility is what the customer receives, and warranty is how it is provided. (Van Bon, J. et al.; 2009)

In ISO/IEC 20000 standard, it is said that charging is an optional activity and it is not therefore covered by the standard. (ISO/IEC 20000; 2005).

Related to charging is of course the pricing of services, which is one of the most important decisions to be made when either planning a new service or making changes to an existing service. Pricing directly affects both the profitability and the sales of organization.

CitiusNet Ltd. is currently in the middle of service productization and in the need for a tool or guideline how to discern and set values for new services. It is necessary for business, that new service products become profitable within a certain amount of time from introduction.

Objective of this thesis is to research value-based pricing, how to define value of ICT services to a customer and how to ensure that new services are profitable from the service

provider's point of view. The objective is also to define the value-drivers the customers feel important.

Operational framework of thesis is meant to be pricing of small and medium-sized businesses mainly from value-based pricing view. Currently pricing of CitiusNet Ltd. is mainly based on cost-based pricing. There is so called base price, which is used for regular services for new customers and for those customers that don't have any kind of service contract, and a contract price for customers. Contract prices are negotiated case by case.

This thesis is meant to be a guideline or preliminary research for the question whether CitiusNet Ltd. should change its pricing strategy from cost-based pricing to value-based pricing. Basically it's a both strategic and financial question that affects the profitability of the provided service, customer relationships and satisfaction regardless of their age.

The following questions have risen. How can we be sure that service is profitable? Can we measure it? What do the customers value? Can we base our pricing to the view of customers and their values?

2 THEORY

In the chapter 2, theory related to this thesis will be introduced. First the theoretical framework of the thesis is presented shortly. Then as a basis, the theory of value chain is introduced, as well as one adaptation of it for ICT services. Also some theory of service valuation in ITIL and of pricing models will be introduced.

2.1 Theoretical framework

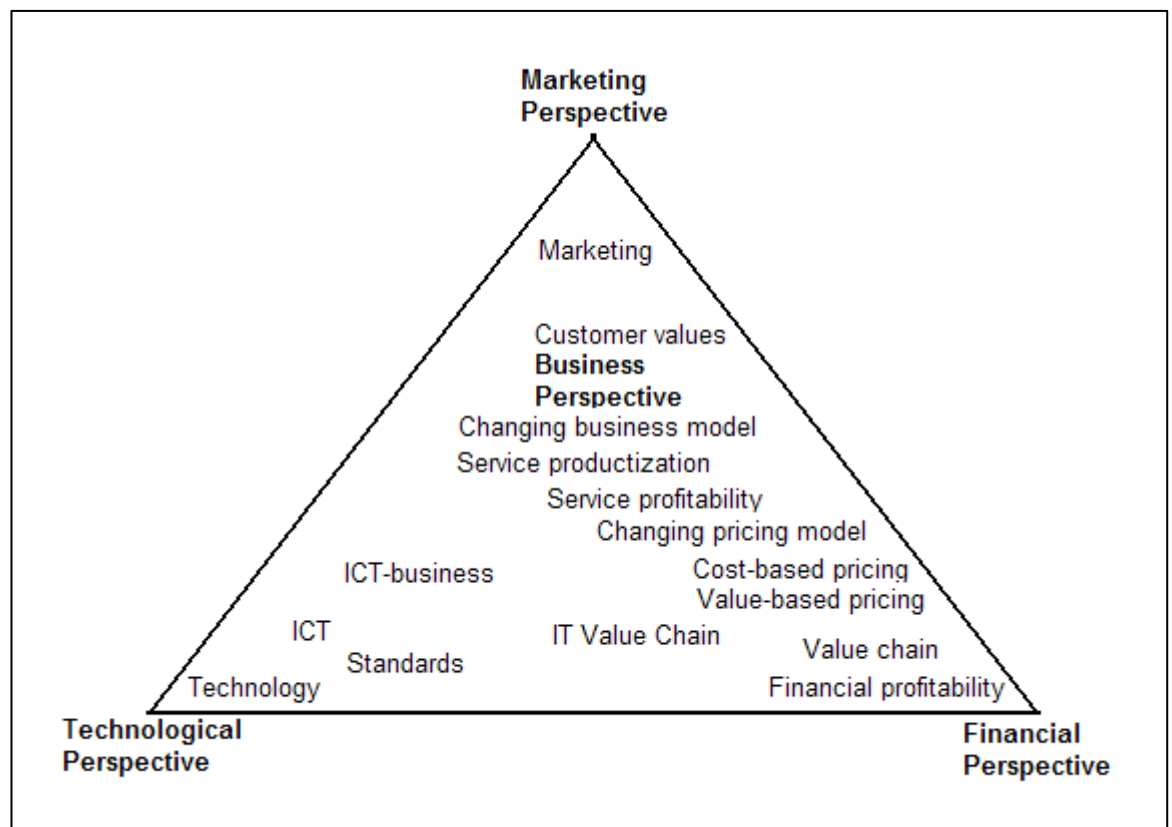


Figure 1. Theoretical framework

Shown in Figure 1, is the theoretical framework of this thesis. Basically it will be weighted towards the value-based pricing and the strategic choice of changing pricing model of ICT service from cost-based pricing to value-based pricing. Most of the terms in the figure will be reflected in this thesis.

2.2 Value chain

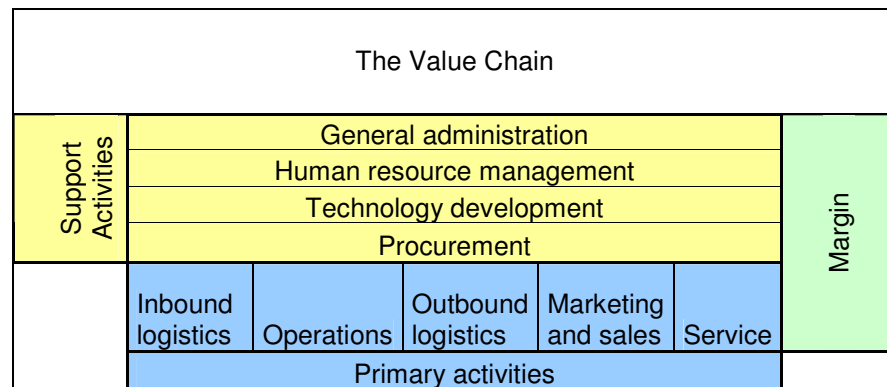


Figure 2. The Value Chain by Porter, M.

According to Porter, M. (1985) value chain (Figure 2) consists of five categories of primary activities: Inbound logistics, Operations, Outbound logistics, Marketing and sales, and Service. He also describes four categories of support activities: Procurement, Technology development, Human resource management and General administration.

Inbound logistics is primarily associated with receiving, storing and distributing inputs to the product or service. Operations include all activities associated with transforming inputs into the final product form. Outbound logistics are activities associated with collecting, storing and distributing product or service to buyers. Marketing and sales activities are associated with purchases of products and services by clients and the inducements to make them get the purchases. Service includes all actions associated with providing service to enhance or maintain the value of the product or service. (Dess, G. G., Lumpkin, G. T. & Eisner, A. B.; 2007)

Procurement refers to the function of purchasing inputs used in the organization's value chain, instead of purchased inputs. Technology development refers to the technological development of the product or service, but also to the development of organization's value chain, or any primary or support activities. Human resource management is made of activities involving recruiting, hiring, training, development, and compensation of all types of personnel. It also supports all other activities and the entire value chain of organization. General administration consists of activities like general management, planning, budgeting, quality management etc. General administration typically supports the entire value chain instead of individual activities. (Dess, G. G. et al.; 2007)

2.3 Value chain in IT industry

As earlier was mentioned, value chain is a model that describes value adding properties of production processes of physical goods from supplier to the customer. The value chains that are used in IT industry are usually centered on the value creation and value flow of IT-enabled services. This service oriented focus is the main difference between original production industry based value chain and IT industry based value chains.

Despite the growing importance for IT Value Chains, a reference model to aid in its management is yet to be developed (Du, A. Y., Gopal, R. D. & Ramesh, R.; 2005).

Betz, C. (2007) however has made an adaptation of value chain for IT. See Figure 3 below.

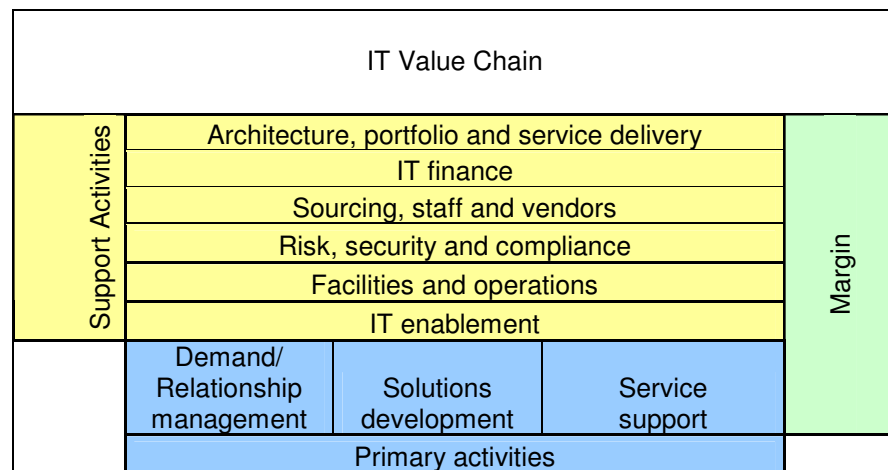


Figure 3. IT Value chain by Betz, C.

Betz also has mapped some of the industry frameworks that apply to value chain. As a note, ISO/IEC 20000 standard also covers some of the value chain activities in Betz's figure (Figure 4).

IT Value Chain with industry frameworks				
Support Activities	ITIL Service Delivery CMMI-process aspects	Architecture, portfolio and service delivery ITIL Application Management	ITIL Software Asset Management	Margin
	ITIL Service Delivery	IT finance		
	CMMI-Supplier Sourcing	Sourcing, staff and vendors		
	ITIL Security	Risk, security and compliance	ISO 27000	
	ITIL ICT Infrastructure	Facilities and operations		
	All frameworks	IT enablement		
	Demand/ Relationship management ITIL Business Perspective	Solutions development CMMI-software engineering	Service support ITIL Service Support	
	Primary activities			

Figure 4. IT Value Chain with industry frameworks by Betz, C.

According to Betz, the primary activity of the IT value chain is the overall process by which technology needs are identified and solutions are authorized, build, deployed, supported for an indeterminate time and retired. He writes that the IT industry started as a supply centric, but is increasingly demand driven as the technology becomes more and more commoditized.

According to Betz, IT value chains primary activities are: demand and relationship management, solutions development and service support. Next I will briefly describe primary activities according Betz.

Demand management is meant to be the initial intake of requests for larger-scale, project-based IT services. It's meant to capture requests for new or changed systems or services, and consultation. These requests are evaluated, then their scope is established and then they are prioritized against strategic objectives. Evaluation may concern several dimensions like projected benefits, complexity and costs. Projected returns on investments are established and some form or priority ranking for project order is made. Prioritized and authorized demand requests are then turned into projects. Demand management should be closely aligned with service portfolio management, service request management and staffing

process, so that required increased in support staff for new IT capabilities are anticipated. (Betz, C.; 2007)

Demand requests can also originate from the IT organization. These requests could be technology refreshes, proactive technology implementation, IT enablement and continuous improvements of services. (Betz, C.; 2007)

Demand management also includes high-level customer relationship management. Metrics for demand management could include new requests, status of requests in the service pipeline, approved/authorized requests, requests in progress and completed requests. (Betz, C.; 2007)

Solution development consists of managing projects and requirements, designing and building solutions and ensuring solution quality. (Betz, C.; 2007)

Project management is the core of solution development, which controls the build activity. Project management defines and control scope, resources, timelines and deliverables in support of a specific and time-bound objective. It requires ability to track expenditures on staff and other resources, manage and report on progress to goals, and analyze dependencies so that efforts are executed in the correct order. Usual metric used is individual time against chargeable accounts. (Betz, C.; 2007)

After project management has defined the project, well-documented requirements are needed: the functionality, as experiences by the customer, envisioned for the new or changed service. Managing requirements is one of the most critical success factors for any development project, in particular the control of new requirements through a defined process. (Betz, C.; 2007)

In designing and building a service solution, enabling reuse is a key concern. Service providers must be able to easily find potential solutions or they will simply reinvent them. Consistency of delivered service is another sought quality. When developing infrastructure, attention to how services are provisioned is needed. (Betz, C.; 2007)

Ensuring quality in solutions development consists of validating that the service was built right and in particular meets the functional and non-functional requirements; that is, it works right and meets operational standards for performance, availability and manageability. Test, verify and validate. (Betz, C.; 2007)

Service support uses the solution built in solutions development to return value on the investment. Value means that the service is available, performs acceptably, and can be changed within reason in response to new business requirements. It implies the control, measurement and monitoring of operational services. Basically service support consists of managing releases, production changes, production configurations, fulfilling service requests, sustaining services and resolving incidents and problems. (Betz, C.; 2007)

Managing releases is the transition of delivered solutions into stable production status, to move from project life cycle to operational service management. It is closely tied to change management. (Betz, C.; 2007)

Managing production change is critical for IT operational stability and the effective use of new services. Change management centers on a task of managing changes to production or preproduction that may have effect on operational services. (Betz, C.; 2007)

Managing production configurations means tracking of and accounting for IT elements of concern to the IT organization and their dependencies. Betz says that it's questionable whether it belongs in the core value chain, as the IT customer might not see it as adding value, yet the information maintained through configuration management process is so critical for so many aspects of value delivery that relegating it to a supporting activity seems inadvisable by him. (Betz, C.; 2007)

Fulfilling service requests provides defined services to users, such as new Workstations, security access and email and network services etc. Because it's sometimes not possible to distinguish between an incident and a request for service, it is considered as a best practise that service desk may also support incident management. (Betz, C.; 2007)

Sustaining services are defined as base support activities intended by design, like monthly database tuning or weekly inspection of backup logs. (Betz, C.; 2007)

Resolving incidents and problems is the core of service support. The failed service is first restored to operational status by incident management, and if warranted or needed forwarded to problem management for root cause analysis and recommended solutions. One of the main reasons for keeping incident and problem management separate is that staff members focused on proactive problem solving are not pulled into reactive service restoration activities. (Betz, C.; 2007)

According to Betz, the secondary activities are: architecture, portfolio and service delivery, IT finance, sourcing, staff, and vendors, risk, security and compliance, facilities and operations and IT enablement. Next I will briefly describe secondary activities according to Betz.

Architecture, portfolio and service delivery consists of developing IT strategy, managing IT portfolio, capacity, availability, service levels, process and data. Developing IT strategy is the work to establish the base principles and objectives of the IT organization in its service to its customers. Betz claims that it's an important, but a non-value-adding activity.

Managing IT portfolio means that IT services should be managed as a portfolio. The purpose of IT portfolio management is an enabling process area for primary value chain activity of demand management. The difference between portfolio management and demand request is that portfolio management takes an enterprise perspective to IT service management, while demand request is considered as customer-focused interaction of IT services driving the primary value chain. (Betz, C.; 2007)

The purpose of managing capacity is to ensure that the IT organization has sufficient operational capacity (both technical and human resources) to meet future business needs and the purpose of availability management is to ensure that systems are available for their intended use, in keeping with any service-level agreements. (Betz, C.; 2007)

Service level management is the name given to the planning, coordinating, drafting, agreeing, monitoring and reporting processes on service-level agreements. According to Betz it is the measurement of anything that defines service with agreed to levels of quality and performance. (Betz, C.; 2007)

Process management is a process meant to manage IT process of organization. Business process management would be responsible for establishing principles by which IT process is defined and ensuring that they are followed. Data management means managing IT data assets for efficiency and integrity. This manifests in concerns as controlling data redundancy, ensuring data warehouse architecture etc. (Betz, C.; 2007)

IT finance is the interface between corporate finance and IT worlds, handling the accounting and cost allocation of IT organization. At least, it should be a process that allows decision to be made whether or not the service is good value for the money. (Betz, C.; 2007)

Managing sourcing, staff and vendors contains activities binding financial relationships with vendors of hardware, software, consulting and staff augmentation services. IT human resource management is included here. (Betz, C.; 2007)

Managing risks, security and compliance is an area concerned with the physical and virtual access controls and defences of the IT infrastructure and the ongoing certification of the same. This also includes disaster planning and risk management in the sense of identifying negative scenarios, their likelihood and potential costs of impact. (Betz, C.; 2007)

Managing facilities and operations is an area focused on the planning and control aspects of facilities and operations, since the core value chain covers the daily provision and management of services, but not for example complex engineering involved in data center construction and management. (Betz, C.; 2007)

Enabling IT is basically the same value chain, and it has the same requirements as IT as whole, but in smaller scale and with all the same supporting processes. To put it short: to enable IT, one needs IT. (Betz, C.; 2007)

2.4 Service Valuation

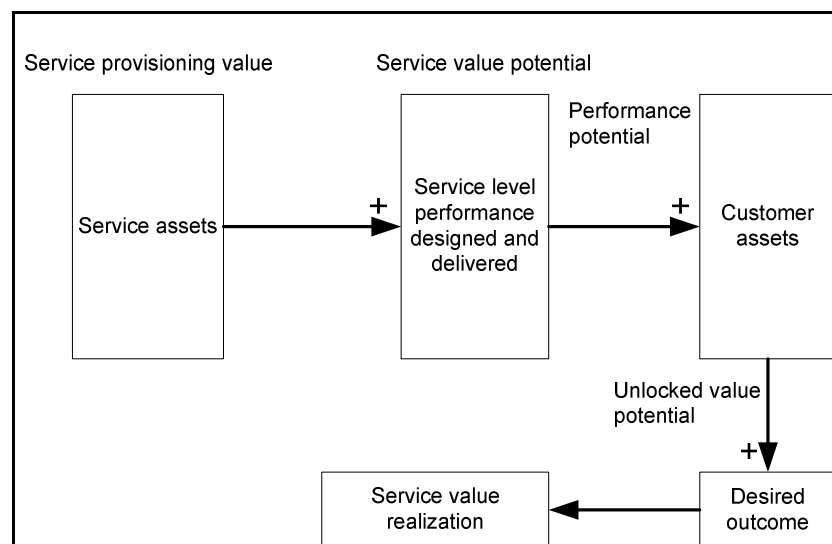


Figure 5. Service Valuation according ITIL V3 by Van Von, J. et al.

Service Valuation, shown in Figure 5, is a measurement of total cost of delivering an IT service, and the total value to the Business of that IT service. It is used to help the Business and the IT Service Provider agree on the value of the IT service.

ITIL defines two value concepts for service valuation: (Van Bon, J. et al.; 2009)

1) Provisioning value

These are the actual underlying costs to IT that are related to provisioning a service. It included all cost elements, both tangible and intangible. (Van Bon, J. et al.; 2009)

2) Service value potential

Service value potential is the value-adding component based on the customer's perception of value from the service or expected marginal utility and warranty from using the service, in comparison with what is possible using the customer's own assets. Look at the service's individual value components to determine the true value of the service. Determine the eventual value of the service by adding these components and comparing them against the costs (provisioning value). (Van Bon, J. et al.; 2009)

2.5 Value drivers and customer perceived value

Value drivers are identified by each value activity. Perceived quality, for instance, is defined as a value driver, but perceived customer value is recognized to be a larger concept than perceived quality.

Customer perceived value means the customer's overall assessment of the utility of a service based on perceptions of what is received and what is given. Although what is received varies across the customers (some may want volume, others high quality, still other convenience), as does that is given (some are concerned only with money expended, others with time and effort), value represents trade-off of the give and get components. Customers will make a purchase decision on the basis of perceived value, not solely to minimize the price paid. (Wilson, A., Zeithaml, V. A., Bitner, M. J. & Gremler, D. D.; 2008)

2.6 Customer value driver categories

In order to create the foundation for setting prices, it is necessary to identify the relevant set of value drivers for the market segment being targeted and understand the importance of each in purchase decision. Customer value drivers are emotional links that summarize customer perceptions about the product and firm, create positive attitudes and feelings, provide the basis for differentiation, and provide the reason to buy. (Harmon, R., Demirkan, H., Hefley, B. & Auseklis, N.; 2009)

According to Harmon et al. (2009), the primary categories are:

1. Economic value. These value drivers are based on the customer's perception about the price of acquiring owning, installing, using and disposing of a product or service.
2. Performance value. These value drivers are based on customer's perception of the utility to be derived from the functional features, advantages, and benefits associated with a product or service.
3. Supplier value. These value drivers are based upon customer's perception of the service provider's credibility and brand.
4. Buyer motivation. These value drivers are based upon customer's psychological motivation for a particular purchase. It is central to the buying decision process.
5. The buying situation. These value drivers are based upon situational contexts that may or may not have effect on buying decision process. They include the following:
 - a. Task definition. What tasks does the service address?
 - b. Resource capability. Customer's physical and intellectual resources, like budgets, technical skills and infrastructure.
 - c. Time horizon. Customers with short decision time (or in emergency) tend to be less price-sensitive.
 - d. Social influences. How does customer and service users (that can affect buying decision) influence the adaptation of service.

- e. Experience level. Highly experienced customers tend to have stronger service/product-related attitudes, which influence price expectations.
- f. Availability. Refers to the degree of accessibility of objective information about the service or its provider for assessing performance and risks.

2.7 Value creation of service in ITIL V3

The utility is what the customer receives, and the warranty affirms how it will be delivered. (Van Bon, J. et al.; 2009)

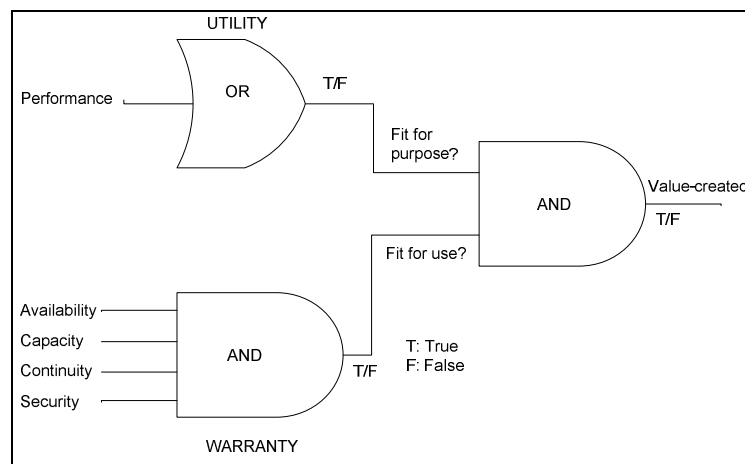


Figure 6. Value creation of service in ITIL V3 by Van Bon, J. et al.

1) Utility

Fitness for purpose. Utility is perceived by the customer from the attributes of the service that have a positive effect on the performance of tasks associated with desired outcomes. Utility stands for the increase of a possible profit. (Van Bon, J. et al.; 2009)

2) Warranty

Fitness for use. Availability and reliability in continuity and security. Warranty stands for the decline in possible losses and it guarantees the utility if service. It consists of four subcategories: availability, capacity, continuity and security. Availability is an assurance that the service is available according to the agreed terms and conditions.

Capacity is an assurance that the utility of service can be provided by service provider. Continuity is an assurance that the service supports the business even during times of great difficulty or other disasters. Security is an assurance that the service can be used safely and securely. (Van Bon, J. et al.; 2009)

As, shown in Figure 6, value creation in ITIL is a combination of the effects of utility and warranty. Both are necessary for the creation of value for the customer.

2.8 SERVQUAL Service Delivery Quality Framework

SERVQUAL, also known as RATER, was found by Parasuraman, A. (1985) and originally consisted of ten dimensional components of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/knowing the customer and tangibles. Late 90's these components were reduced into following five: reliability, responsiveness, assurance, empathy and tangibles. After each component is a short description and example questions commonly used to evaluate the component. They are listed in order of declining relative importance to customers.

- 1) Reliability – The ability to perform the promised service both dependably and accurately. Reliable service performance is a customer expectation and means that the service is accomplished on time, in the same manner, and without errors every time. For example, receiving mail at approximately the same time each day is important to most people. Reliability also extends into the back office, where accuracy in billing and record keeping is expected. (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

Did the service provider perform promised service dependable and accurately?

Did the service provider elicit a feeling of confidence in the customer during the service delivery process?

- 2) Responsiveness – The willingness to help customers and to provide prompt service. Keeping customers waiting particularly for no apparent reason creates unnecessary negative perceptions of quality. If service failure occurs, the ability to recover quickly and with professionalism can create very positive perceptions of quality. For

example, serving complimentary drinks on a delayed flight can turn a potentially poor customer experience into one that is remembered favourably. (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

Is the service provider willing to help customers and provide prompt service?

Is the service provider easy to approach and contact?

Was the service provided in a timely manner?

- 3) Assurance – The knowledge and courtesy of employees as well as their ability to convey trust and confidence. The assurance dimension includes the following features: competence to perform the service, politeness and respect for the customer, and effective communication with the customer, and the general attitude that the server has the customer's best interests at heart. (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

Did the service provider possess required skill and knowledge to perform promised service?

Is the service provider trustworthy and honest?

Is the service secure?

- 4) Empathy – The provision of caring, individualized attention to customers. Empathy includes the following features: approachability, sensitivity, and effort to understand the customer's needs. One example of empathy is the ability of an airline gate attendant to make a customer's missed connection the attendant's own problem and to find a solution. (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

Did the service provider make an effort to know customer and their needs?

Was the service provider able to take the customer's point of view?

Was the customer kept informed?

- 5) Tangibles – The appearance of physical facilities, equipment, personnel, and communication materials. The condition of the physical surroundings is tangible evidence of the care and attention to detail that are exhibited by the service provider.

This assessment dimension also can extend to the conduct of other customers in the service (e.g., noisy guest in the next room at a hotel). (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

Is the physical facilities, equipment, personnel, printed and visual materials acceptable?

Was evidence left that the service was indeed performed?

Customers use these five dimensions to form their judgements of service quality, which are based on a comparison between expected and perceived service. The gap between expected and perceived service is a measure of service quality; satisfaction is either negative or positive. (Fitzsimmons, J. A. & Fitzsimmons, M. J. 2008)

According to Heskett, J. L., Sasser, W. E. & Schlesinger, L. A. (1997), other research has established that the customer's views of service quality depend primarily on the relationship between what was actually delivered (and in what manner) in relation to what was expected by the customer. They also say that this has following implication for service providers.

- 1) Service quality is relative, not absolute.
- 2) It is determined by the customer, not by the service provider.
- 3) It varies from one customer to another.
- 4) Service quality can be enhanced both by meeting or exceeding customers' expectations or taking steps to control such expectations.

2.9 Fitting Service Quality into Utility and Warranty

According to Marquis, H (2010) SERVQUAL models Reliability dimension equals quite well to ITILs concept of utility and answers to the question of "does it do what it needs to do" that encapsulates utility. The other SERVQUAL models dimensions (Responsiveness, Tangibles, Assurance and Empathy) fit to ITIL concept of warranty and answer warranty's question of "how does it do it what needs to do".

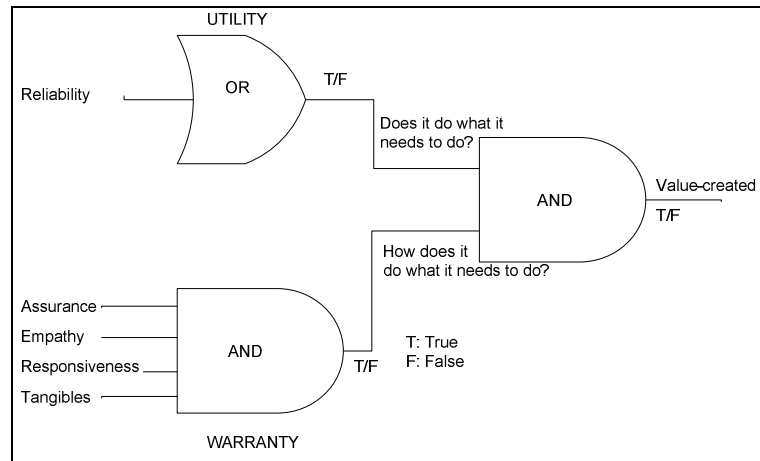


Figure 7. Service Quality inserted into Utility and Warranty by Marquis, H.

According to Marquis, H. (2010) SERVQUAL model can be used to measure ITILs utility and warranty, as shown in Figure 7.

According to Marquis H., after measuring customers' perception of provided service using SERVQUAL, one can use measurements to present numeric representation of services' utility and warranty, a perceived value of service quality. This perceived value can be then used with a conjunction of SLAs to define level of service. SERVQUAL model can also be used to build customised weighted model, where attributes of the model are weighted by importance to the customer. For example, customer could say that tangibles are more important than assurance when modelling total service quality or just value of ITILs warranty.

2.10 Pricing models

As mentioned earlier, pricing is one of the most important decisions that organization has to make when either planning a new service or making changes to an existing service. Pricing directly affects both the profitability and the sales of organization. In marketing of organization nothing else affects as quickly to increasing sales or reducing demand than price of the product or service. Hinterhuber, A. (2003) claims, that the pricing has been largely neglected by managers. According research made by Clancy, K. & Schulman, R. (1993) less than 15% of companies do any systematic research on pricing.

Avila, R., Dodds, W., Chapman, J., Mann, K. & Wahlers. R. (1993) researched importance of price for industrial goods by surveying purchasing and sales managers of 200 companies. They found out that for purchasing managers the most important criteria were product attributes, second service attributes and finally the price. In opinion of the sales managers that were surveyed, however, the price was the most important criteria for their customers. This indicated how weak understanding the sales managers had of their customers. According Hinterhuber, A. (2003) the sales managers have a tendency to overestimate importance of the price for actual and potential customers.

According Harmon et al. (2009) cost-based pricing tends to focus on creating short term value for service provider and value-based pricing tends to focus on the customer's perception of the value of the service, not on service costs only. The goals of value-based pricing are development of customer relationships that can create long-term value for the customer, which enables the achievement of the service provider's financial and strategic objectives, like a long and profitable customer relationship. These differences are shown in Figure 8.

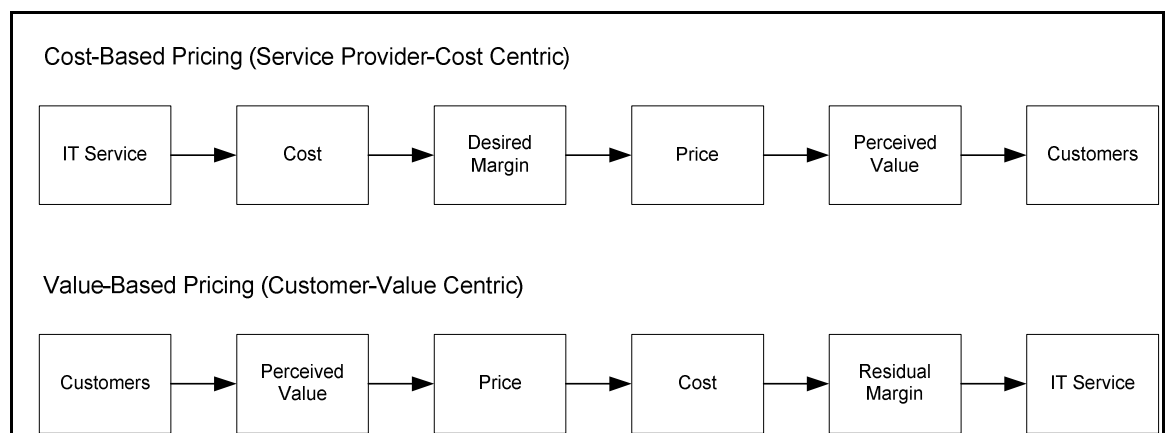


Figure 8. Pricing models by Harmon et al.

According Harmon et al. (2009) organizations that understand the strategic role of pricing and utilize a systematic approach to setting prices, by understanding how customers value service alternatives and arrive at prices that they are willing to pay, can make a better decisions throughout the service development and implementation process. Harmon et al. (2009) describe the following pricing strategies for cost-based and value-based pricing.

2.10.1 Cost-based pricing

Cost-based IT services pricing is a popular method that relies on available cost information from accounting systems. IT services are priced to yield a desired return on fully allocated costs. Service development plans are not approved without sufficient and timely return on investment.

IT service costs consist of service and infrastructure costs. Infrastructure costs are often considered fixed, but there can be variation for example, due volumes. Service costs are considered to be variable cost. The usual cost-based pricing strategies are:

1. Flat pricing, where customers pay a fixed price for unlimited use of the IT service. Typically there are no up-front fees for the customer. The primary pricing goal is to recover the costs.
2. Tiered-pricing, where IT services are packaged to ensure cost recovery and higher margins by matching price levels with customers' willingness to pay. The primary pricing goal is to link the cost of IT services to customers' service level requirements.
3. Performance-based pricing, where license prices are based on a theoretical throughput of the system. The primary pricing goals are to recover the costs and ensure margins and not set prices based on perceived customer value.
4. User-based pricing, where price is based upon the number of users that use IT services over a given period of time. The primary pricing goal is to cover costs by usage. The usual variations of this strategy are: per-user pricing, concurrent user pricing and per-seat pricing.
5. Usage-based pricing, where users pay only for what they use on transaction basis.

2.10.2 Value-based pricing

Value-based pricing is based upon the recognition of customer's value requirements. Customers evaluate the benefits and prices, and choose those products and services that maximize their perceived value. The goal of value-based pricing is to attain long-term profits

by capturing more value. The price of the service should determine the level of development costs that the service provider is willing to incur and what services can be sold with a given cost and residual margin. The usual value-based pricing strategies are:

1. Penetration pricing, where target market segment consists of customers that have high degree of price sensitivity. For example, delivering benefits that are perceived as industry standard at a price that is sufficiently low to generate increases in customers' sales volume creates customer value. The usual variations of this strategy are: low-price leader, experience-curve pricing and bundling.
2. Skim-pricing, where target market segment consists of customer that are relatively insensitive to price. The usual variations of this strategy are: price signalling, reference pricing and image/prestige pricing.
3. Hybrid pricing combines elements of penetration and skim-pricing strategies. The usual variations are: cost-plus pricing, complementary pricing, premium pricing, random discounting, periodic discounting, second-market discounting.

2.11 Implementing value-based pricing for IT services

According to Harmon et al. (2009), customer-value based pricing strategy is market segment-specific, since value perceptions vary between customer groups. After choosing the target segment, service providers must determine the value that the customer perceives in the service. This includes identification of customers' value drivers, price sensitivity and choice perceptions etc. Once the price the customer is willing to pay is determined, this information is integrated with cost volume profit analysis to determine if the designed IT service can be sold at profit. This information can be used to adapt service design to meet the customer's value expectations or to reconfigure pricing strategy.

Associating customer price perceptions with IT service development, that is linking anticipated price to cost estimates, can help to determine whether particular service should be developed.

2.12 Key concepts

CMMI = The Capability Maturity Model Integration is a framework for developing and assessing the software development maturity of an organisation.

ICT = Information and Communication Technology

Incident = For example. “The software configuration on my PC is corrupted.”

IT = Information Technology

ITIL = The Information Technology Infrastructure Library is a best-practise framework originating in the United Kingdom.

Pricing = Decision making process involved in setting the price of product or service.

Service = A service is a means of delivering value to customers by facilitating outcomes the customers want to achieve without ownership of specific costs or risks.

Service request = For example. “Install something on my PC.”

3 RESEARCH

The research is based on the semi-structured interviews of the IT, financial and business management people, who were either partially or entirely responsible for their company's decisions of the ICT outsourcing. Personal interviews were decided to be the best way of gathering data from the customers, since the research problems were related on the customers' view of the service value.

The personal interviews were implemented as thematic interviews (Appendix 1). Duration of the interviews varied from thirty minutes to one and half hours. The aim of the interviews was to research the perceived value of the service for the customer, and the value-drivers of the service. The customer value was approached by questioning. Some of the questions were based upon previous questionnaires by Väätäinen A. & Kannisto I. (2006) and Lapierre J. (2000).

The questions covered the following themes: customer value and what they mean to customer, the differences between service providers' and customers perception of customer value, the source of customer value, the current strength and weaknesses of service, how to provide more value to customers, about competition's offerings and customer needs and expectations. Additional questions were asked about each value component defined in the theory.

The interviews were implemented in April 2010. Interviews were done in Finnish, transcribed and translated to English. Some of the transcribed results were coded so they could be used for graphical analysis. All customer sensitive information was removed.

4 RESULTS

In this chapter the results of the interviews are represented. Eleven persons from eight different companies were interviewed. Companies represent a crosscut of typical customers of CitiusNet Ltd. Additional comments are marked by interviewed person, for example, I4 means interviewee number 4. All the questions were voluntary.

4.1 Basic information about companies interviewed

As shown in Figure 9, all interviewed companies have service industry as their basic business. In addition, 25 percent of interviewed companies also had production industry as additional business.

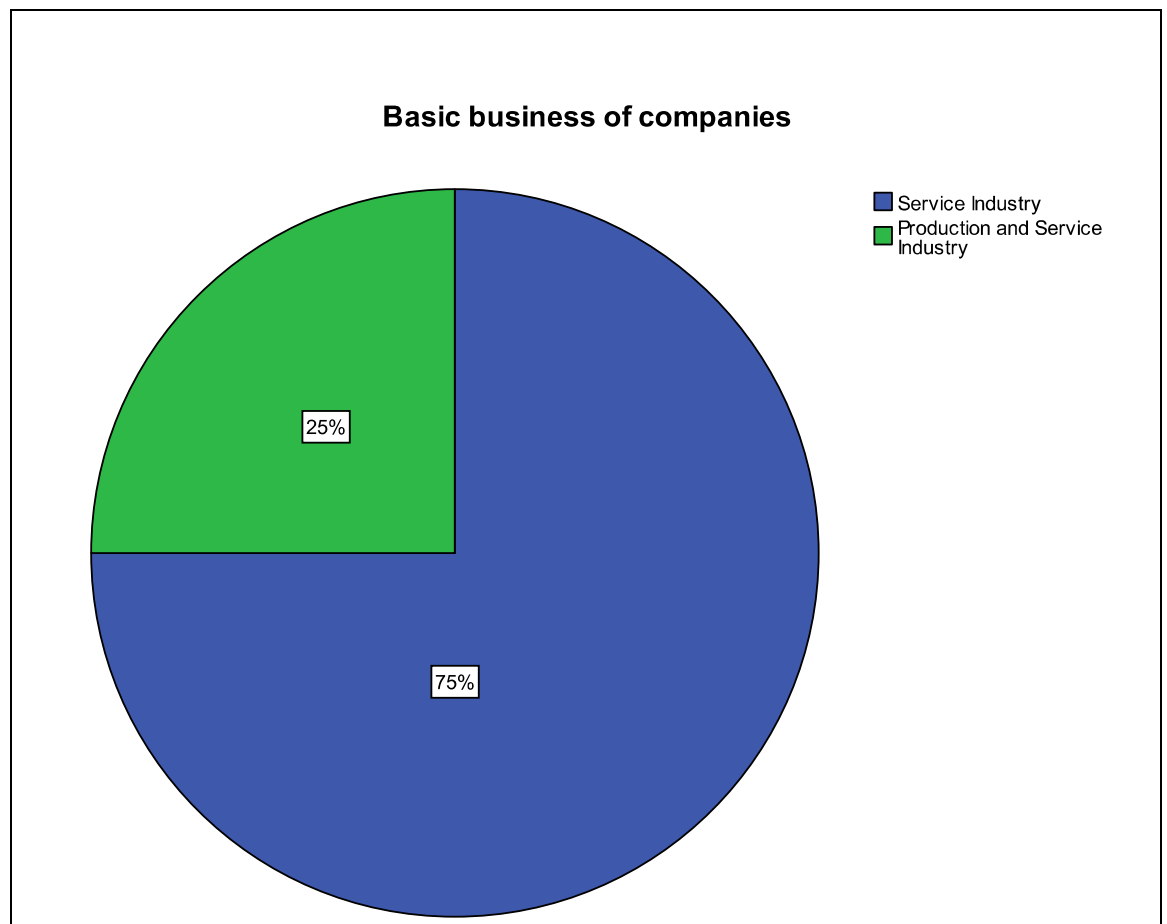


Figure 9. Basic business of companies

The client base composition of interviewed companies is shown in Figure 10. Majority, total of 88 percent of the interviewed companies, had companies as their clients. 13 percent of the interviewed companies only had people as their clients.

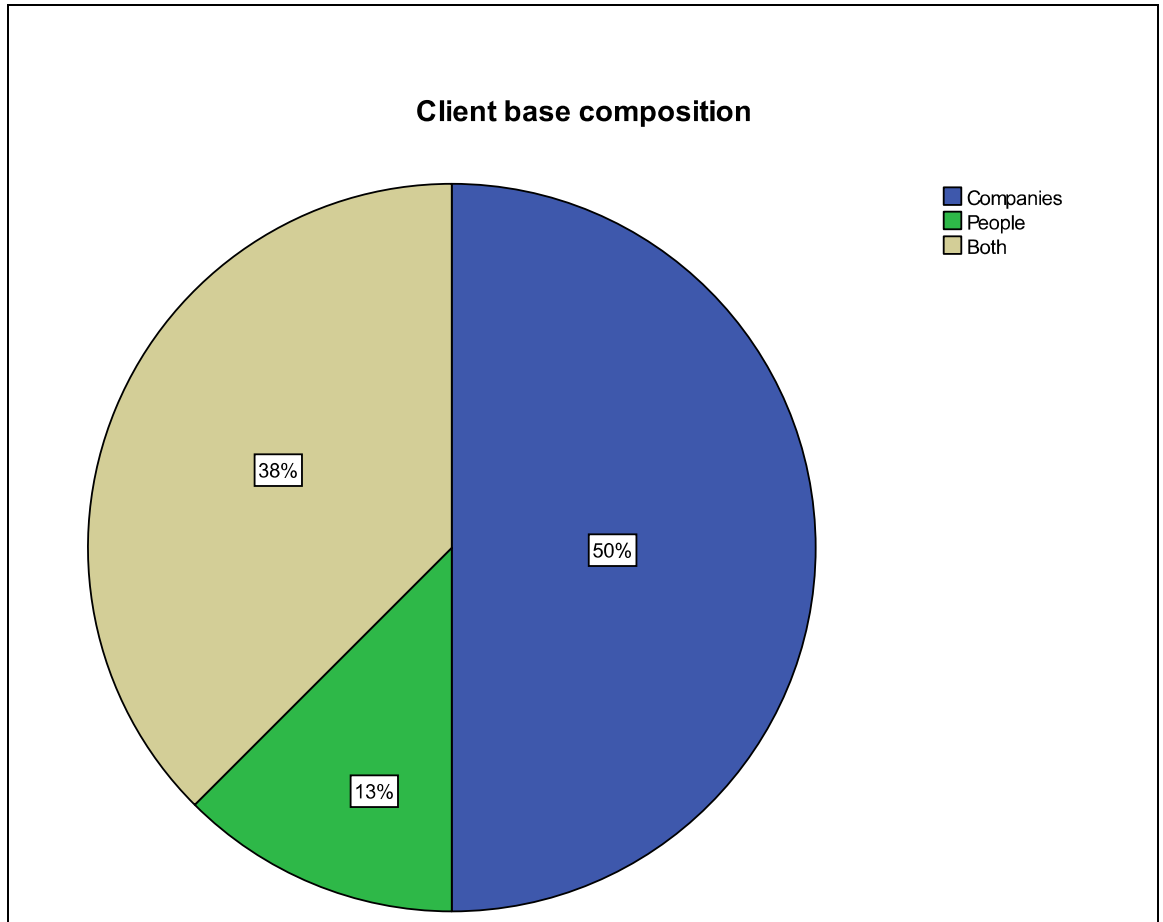


Figure 10. Client base composition

All the interviewed companies worked in co-operation or were networked with other companies. This varied from outsourcing functions and having manufacturing supplier chains to being subsidiaries of bigger companies

The interviewed persons were persons either partially or entirely responsible for their company's decisions of the ICT outsourcing. Their positions in companies are listed in Figure 11. In generally, the smaller the interviewed company was, the higher in organizational hierarchy the decisions for ICT outsourcing were made. Also the bigger the company, the more people were involved with the making decisions of ICT outsourcing

		Position in the company			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business controller	2	18,2	18,2	18,2
	Executive director	1	9,1	9,1	27,3
	Financial manager	1	9,1	9,1	36,4
	IT manager	3	27,3	27,3	63,6
	Managing director	1	9,1	9,1	72,7
	Office manager	2	18,2	18,2	90,9
	Regional manager	1	9,1	9,1	100,0
	Total	11	100,0	100,0	

Figure 11. Position interviewed people in their companies

Position related to ICT outsourcing is shown in figure 12. Majority of the interviewed persons were involved in the outsourcing as decision makers. Minority were just users of outsourced ICT service.

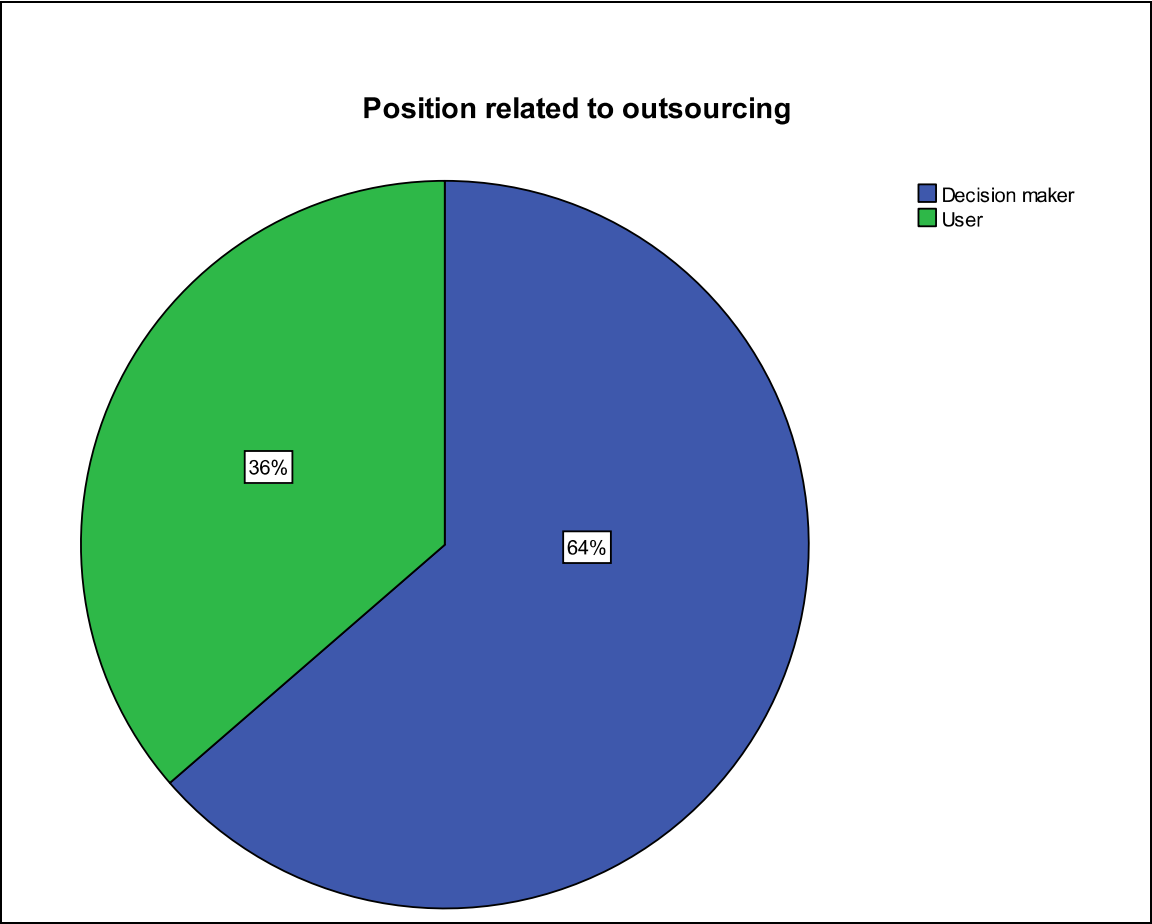


Figure 12. Position of interviewees person in related to outsourcing

The frequency of using ICT services provided by CitiusNet Ltd. is shown in Figure 13. Majority, 63 percent of interviewed persons used services at least weekly. Almost a third used the services monthly.

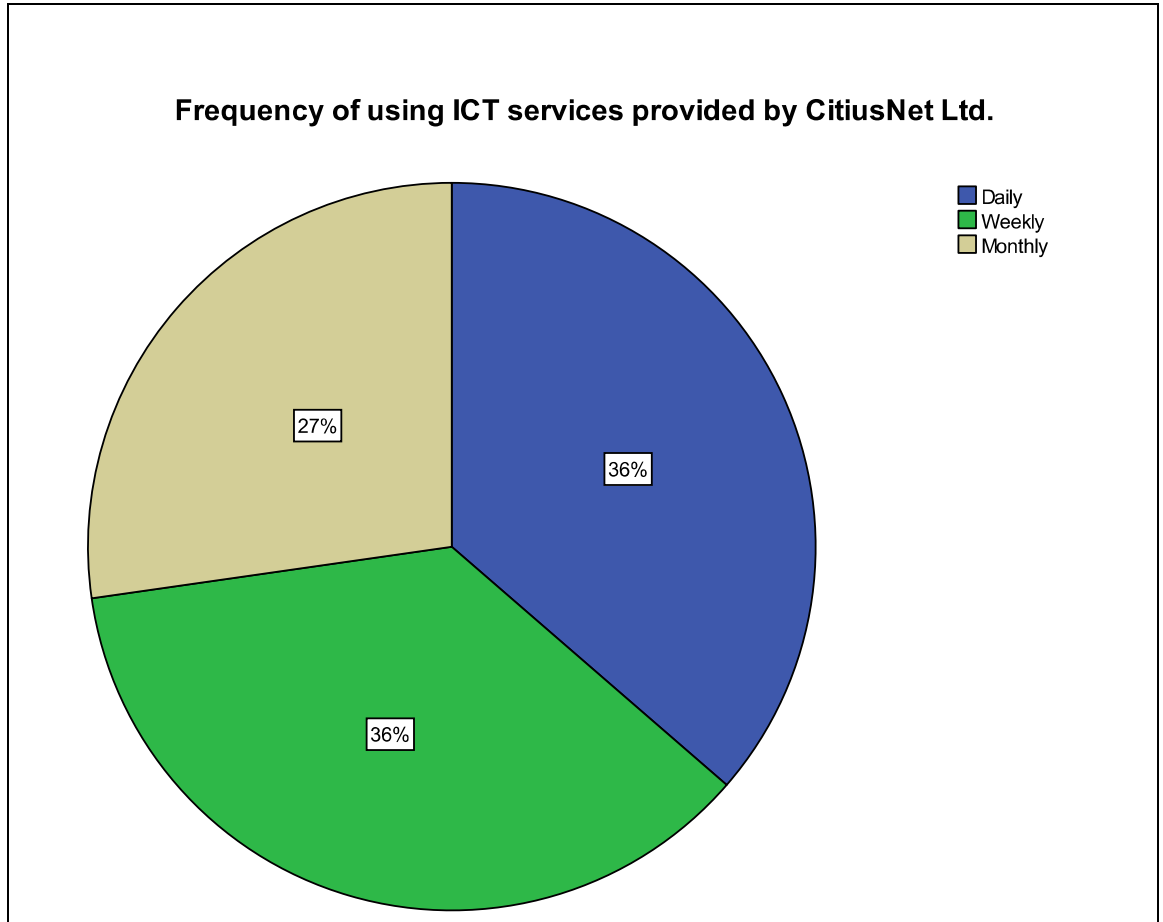


Figure 13. Frequency of using ICT services provided by CitiusNet Ltd.

The usual way of communication with CitiusNet Ltd. is shown in Figure 14. For the interviewed persons communication was done by phone, email or by both of them. Due proximity of CitiusNet Ltd, some of the interviewees preferred face to face communication. This is represented as the option 'Other'.

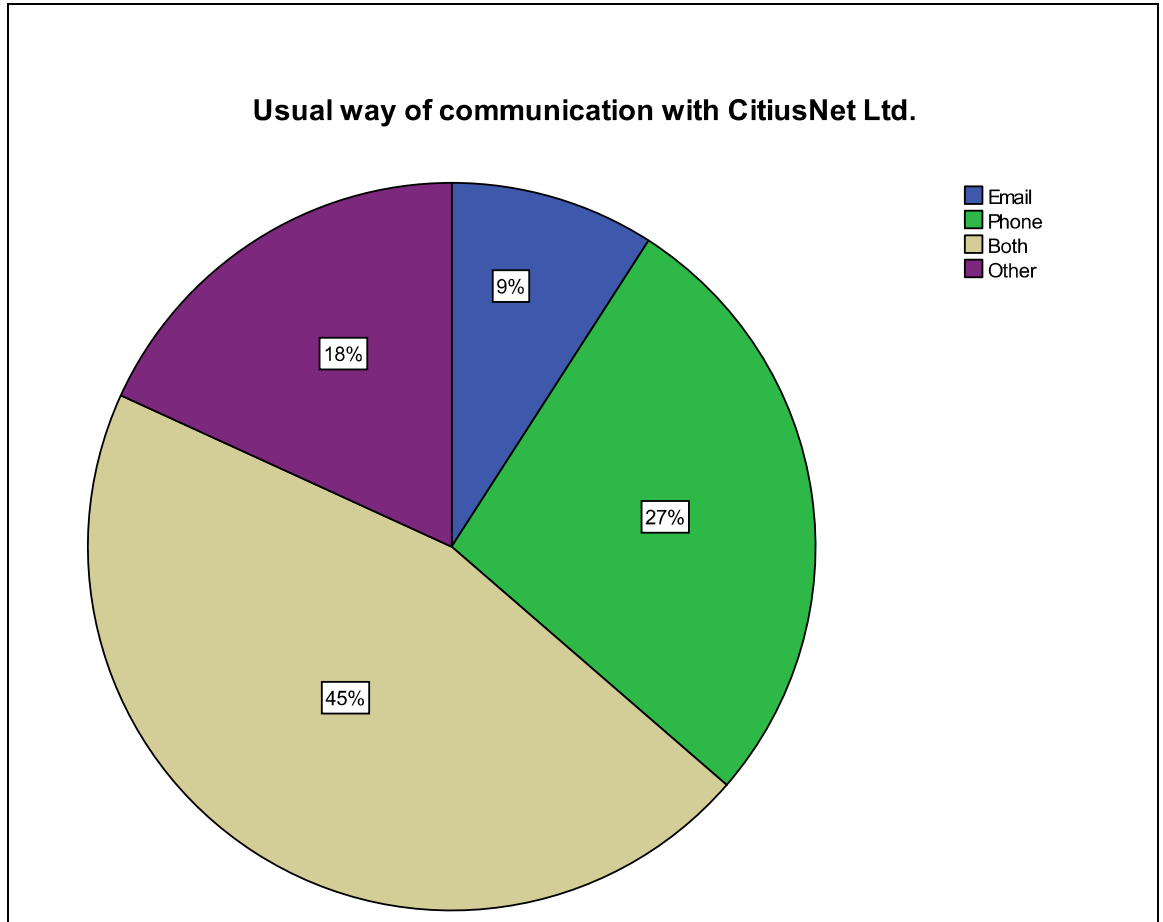


Figure 14. Communication with CitiusNet Ltd.

4.2 Company resources

All interviewed companies used some kind of ICT for their daily operations. These varied from enterprise resource planning (ERP) tools to common information exchange by email. Majority of interviewed personnel told that their companies are very dependant of using ICT. This is shown in figure 15.

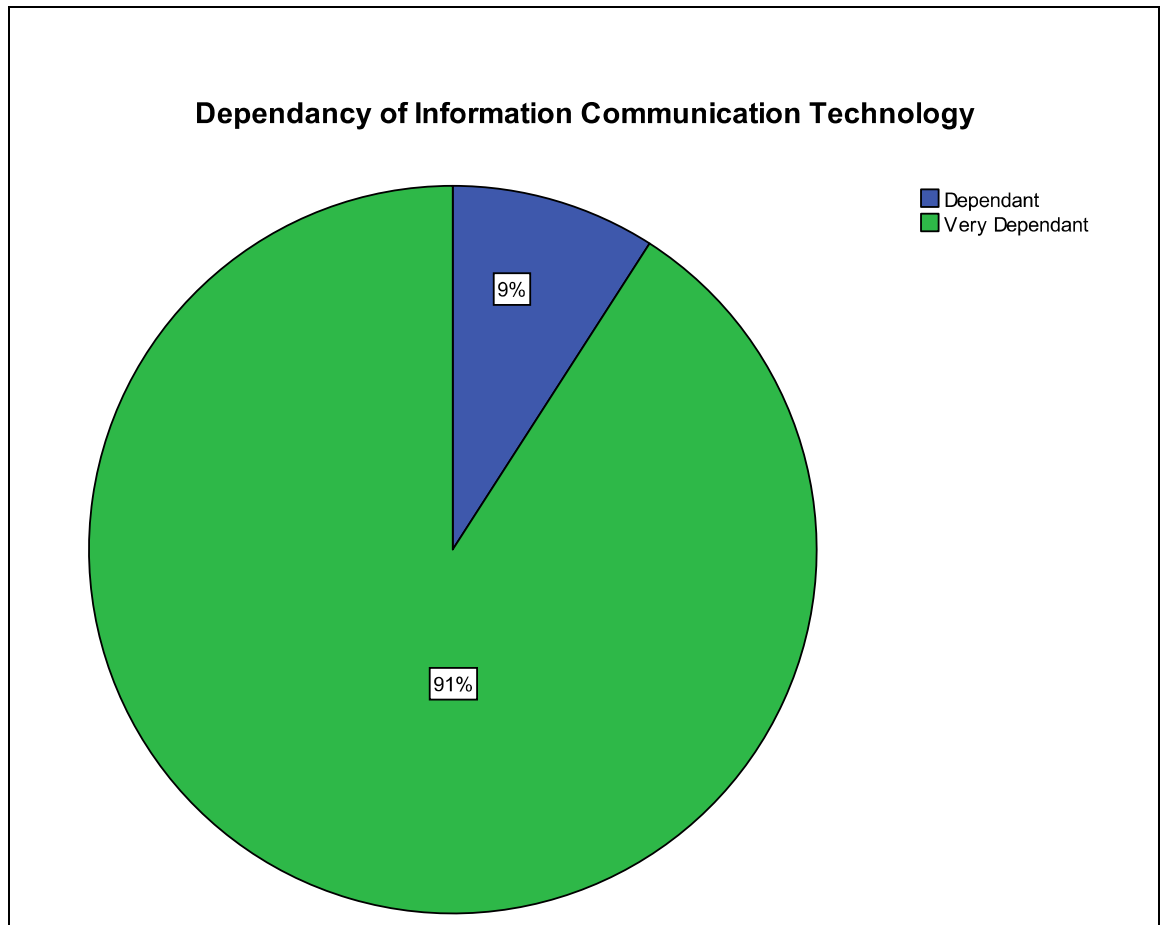


Figure 15. ICT dependency of interviewed companies

Majority of the interviewed companies, total of 88 percent, bought all or most of their ICT services from CitiusNet Ltd. Minority bought only some of their ICT services from CitiusNet Ltd. This is shown in figure 16.

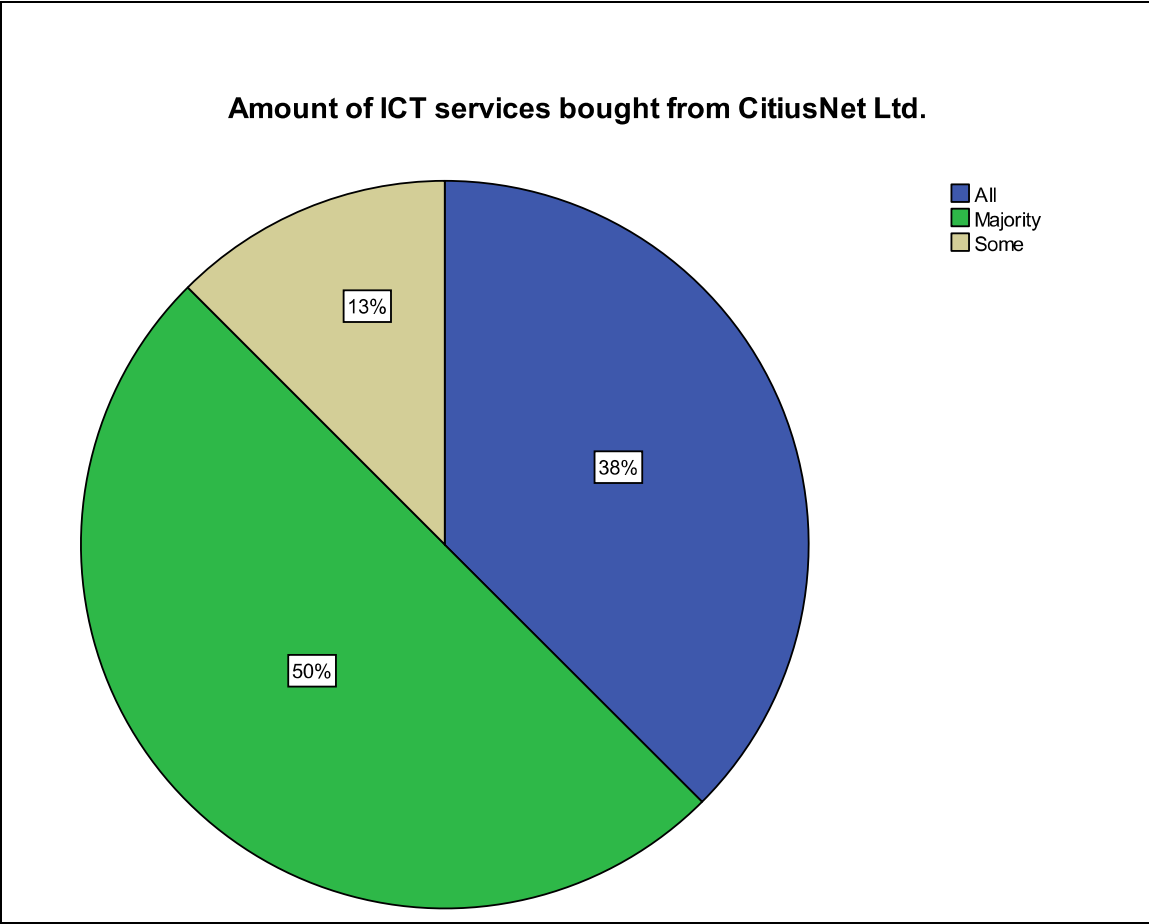


Figure 16. Amount of ICT services bought from CitiusNet Ltd.

However, majority of the interviewed companies also bought some ICT services from other ICT service providers. This is shown in figure 17.

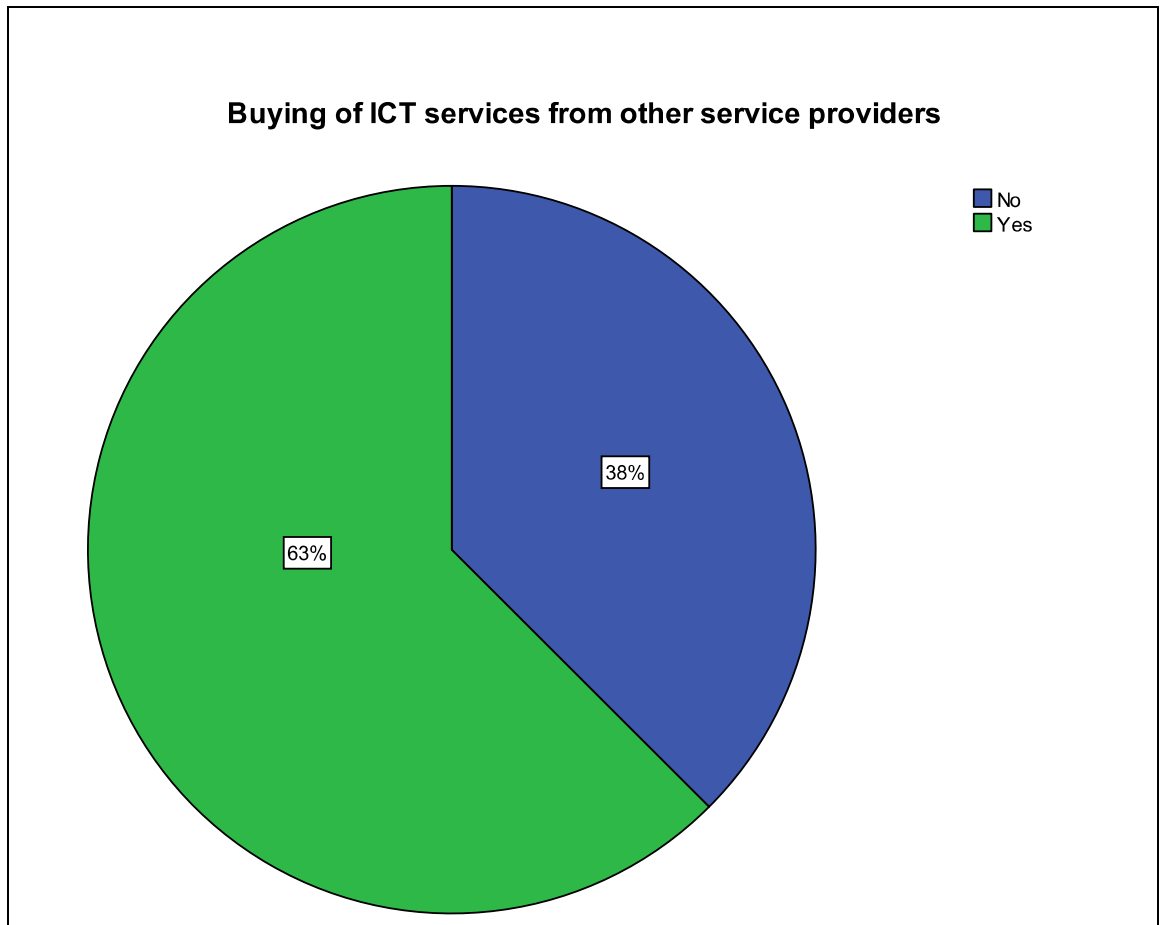


Figure 17. Buying ICT services from other service providers

4.3 Commercial value of service to the customer

All the eleven persons interviewed were asked to describe shortly the commercial value and/or benefit gained from ICT services provided by CitiusNet Ltd. Some also answered from which value components the commercial value and/or benefit consists of, and what do they mean for their company. Everyone was asked what has been the greatest gain for their corporation in outsourcing of ICT services and how do they verify the gain they get from ICT services provided by CitiusNet Ltd. It was also asked that is it possible to increase this commercial value by somehow.

I1 described commercial value as "It's the technical knowledge of CitiusNet Ltd. combined with ability to understand our needs." According to him the value consists of "...allowing our IT infrastructure to run with maximum capacity and high availability. Also we do not need our own resources for IT support." The greatest gain for his company is "using our

infrastructure with maximum efficiency." I1 told that verifying of the services is done by feedback from the actual service users.

I2 described commercial value as "Ensuring our company's IT reliability and warranty under all circumstances." According to him the value consisted of "a guarantee of service continuity." The greatest gain for his company is that "know/how is always up to date. If I were to do this alone, I wouldn't have time to do anything else but to study. Basically, we would need more IT people." I2 told that verifying of the services is done by checking monthly reports gained from CitiusNet Ltd.

I3 described commercial value as "Freeing our own resources, so we can concentrate on our own business and we can rely that our computer systems work." According to him the value consists of "...saving our own resources and time. And yes, it's also financial benefit, if one thinks that we don't need to permanently hire person for IT maintenance, but we can buy the service whenever we need it. Basically we pay only for the service what we need." I3 also said "Our company has only small ICT infrastructure, and it won't employ a person daily. So handling our own ICT service would be someone's secondary job and either would or wouldn't be handled well." I3 told that "We of course follow monthly reports of completed service requests, amount of done work hours and what has been done etc." According to him increasing commercial value could be done by "having meetings were we would go through the most common repetitive problems, because they are not differentiated in the reports. If we have these kinds of 'bottle necks', that cause constantly service requests, we should get rid of them together."

I4 described commercial value as "Guaranteeing our users' daily work." According to him one major aspect of the value is "...need for local partner. We need people sometimes to do things hands on, and sometimes our service users need a person on site in a problematic situation." I4 told also that verifying of the services is done by checking monthly reports gained from CitiusNet Ltd. According to him increasing commercial value could be done by "having working Service Level Agreements (SLAs). They should be done so that there are clear definitions for different situations. Defining working parameters, so to speak. I envision that there lays the challenges. Also mutual understanding should be added, this would give more value for the service to both us and CitiusNet Ltd."

I5 described commercial value as "We don't have to commit our own resources for IT. CitiusNet Ltd. does have the experts and the knowledge. Service gets done. Saving of time and money is great." The meaning of value of I5's company is also "...reliability that we do not have any breaks in our production. We can rely that IT works and the help is near if anything happens." I5 said that greatest gain for his company is "We don't need any resources for this. CitiusNet Ltd. has good expertise. There isn't anybody in this company that could handle ICT." I5 told that he couldn't answer the question regarding the verifying at all.

I6 described commercial value as "Usually when we need the services, the daily work cannot be done." The meaning for his company is "That daily tools are OK, and we can work with our computers." I6 said that the greatest gain for his company is "...that we would need a resource for IT. Yet the fact is that there aren't problems all the time. Now we get the services when we need it, and there is no slack. CitiusNet Ltd. ensures that we get services." I6 told that verifying of the services is done by feedback from the service users. I6 said that commercial value could be added by "getting rid of personified knowledge. I think that CitiusNet Ltd's. knowledge is too personified. The commercial value of the service can be increased by spreading the knowledge of our infrastructure and programs for multiple persons."

I7 couldn't describe the commercial value, but he said that major aspect of it is "Experience and know-how of CitiusNet Ltd. We don't need to use our time for handling entire our IT infrastructure. We get rid of meaningless pondering." The greatest gain for company of I7 is "The entirety of our IT works well." I7 told that the usual way of verifying the service gain is "regular, working communication with CitiusNet Ltd. We have very low level of threshold to contact CitiusNet Ltd, if we do not understand something." I7 said that commercial value could be added by "having regular meetings few times a year, where both sides would stop for a moment, think where we are at the moment and discuss what should be done next."

I8 couldn't describe the commercial value, but he said that the major benefit of the services comes from "Attaining certain quality criteria, because ICT has also so called fashion trends. The ICT develops all the time and our partner needs to know what trends are going on and what things in ICT industry are considered important. Those are things outsiders will evaluate. Economy is the other thing. In the end it's always balancing the Euros in cost efficiency and quality of the service provided." The meaning for I8's company is "...that as

long as we can show together with our partners, that we can handle things well. We can have more freedom of movement, which makes our job more meaningful." The greatest gain of I8's company is "ICT gets more complicated every year. Instead of us concentrating knowledge of ICT, we need to concentrate to knowledge of buying ICT. We can't have deep knowledge of ICT in the whole segment that we work. Via outsourcing we have possibility to buy up to date knowledge." I8 couldn't answer how his company verified the service, but according to him "Basic thing of outsourcing is regular meetings, giving and processing feedback. This will help developing a real mutual understanding what are the most important things in co-operation for us, the client. Another thing is open discussion of what the service provider thinks as his main focus of operation. If there is an area that isn't his main focus, where he doesn't want to spend resources, it should be clearly defined, so we can find other partners for it. Open discussion, so we will know where our demands and service providers supply meets the best." I8 said that commercial value could be increased by "...open discussion about where we could co-operate better. Costs should be able to be allocated better to service providers, so we should define service products and allocate the costs. Better meetings of supply and demand. To positively surprise customer, service providers should bring proactively into discussions things, that we as buyers wouldn't even know how to ask. We would appreciate much, if CitiusNet Ltd. could present proactively, what we could do better, and how."

I9 described the commercial value as "It is mostly location of CitiusNet Ltd. and availability of their service. When there's a problem, the aid is near. Part of the service value is also CitiusNet Ltd.'s special know-how of our business." The benefit according to him is "solving the problem quickly and allowing continuance of work. It's also financial benefit; if IT doesn't work, nothing can be done and money cannot be gained." The greatest benefit for I9's company is "We pay for the service when we need it. Outsourcing ICT is most effective and the best way to do this. And CitiusNet Ltd. is close by. So service availability is the thing." According the I9 the verification of the service gain is "done as we pay the bill." I9 said that commercial value could be "improved by spreading knowledge to multiple staff members. Currently knowledge of our company culminates to one person. When he is unavailable, the service quality drops. The service providing becomes much more difficult for CitiusNet Ltd."

I10 described the commercial value as "CitiusNet Ltd. ensures that we don't have IT problems. It keeps machines running. Security of our systems are also important aspect.

Reliability and availability are the most important things." The greatest benefit for I10's company is "the fact that we haven't ever had any ICT know/how." According to I10 the verification of service "isn't really done at all. As long as the basic IT infrastructure works, we don't verify the other additional gains." I10 said that commercial value could be "improved by introducing new technologies for customers."

I11 described the commercial value as "it's work that someone needs to do anyway, so for us it's resourcing issue." According to I11 the verification of service is done "...when making service requests, the completion of the requests are monitored, so that work gets done. Realized works and billing is monitored." I11 said that commercial value of the service could be improved by "defining service better. Making something well first time, could mean that some problems won't occur at all. Kind a research & development work. Instead of putting out the fires, CitiusNet Ltd. should focus how problems would be proactively and permanently solved."

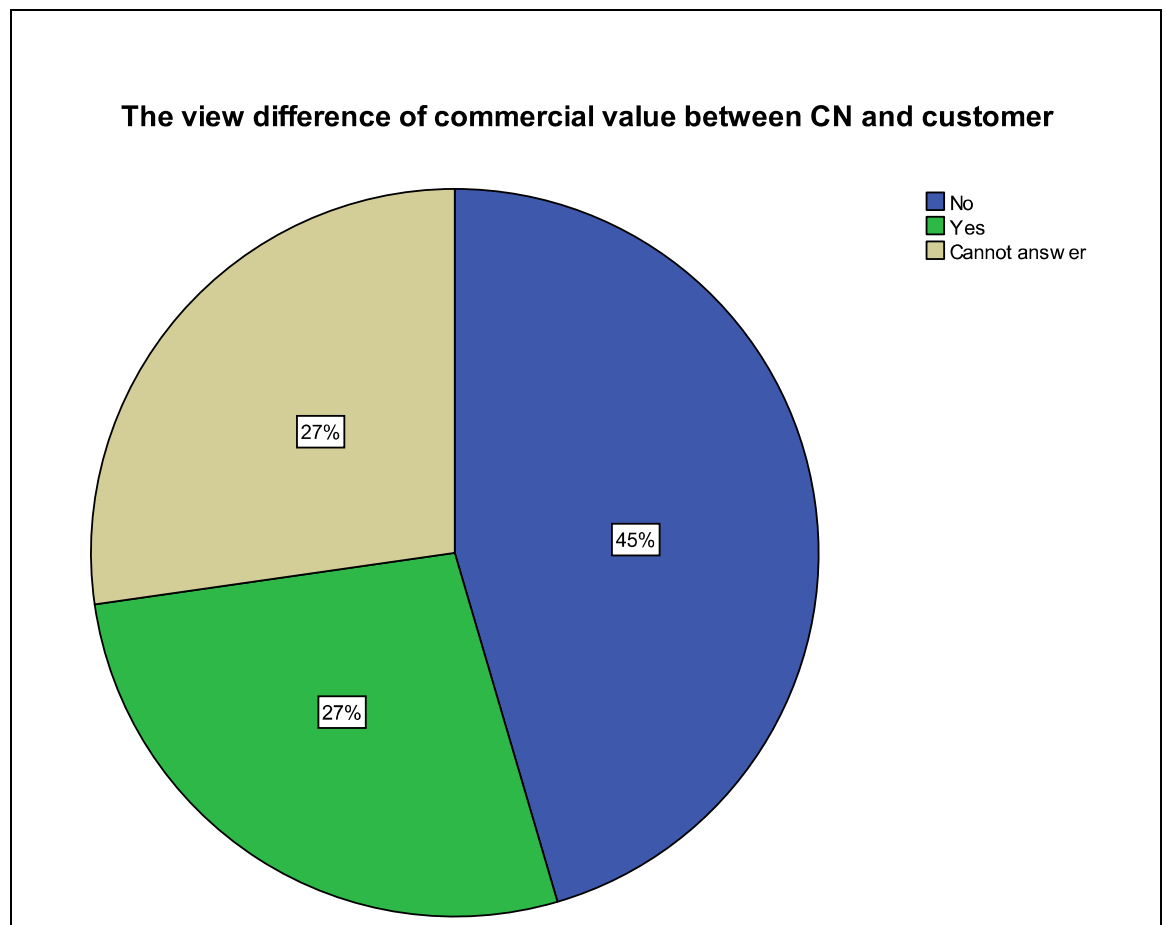


Figure 18. The view difference of commercial value between CitiusNet Ltd. and the customer

The difference between CitiusNet Ltd. and interviewees companies' views of commercial value of the service was also mapped. Majority of the interviewed people said that the view difference of commercial value between CN and customer doesn't differ. Three couldn't answer the question and three said that views are differ. In this thesis I will only go through the differing views. This is shown in Figure 18.

I3 said that "Views might differ little bit. There have been several cases, where I see that if we had used the money better, we would have got better results. CitiusNet Ltd. doesn't probably have clear view of how much one used hour generates value for us. I evaluate it differently. How that one hour should have been used? What operations are profitable for us? If working more efficiently decreases one's own profit, it isn't wanted much. There should be real stick and carrot scheme, so that from good work, defined by quality or by efficiency, would benefit more."

I10 said that "Views probably differ. I think that CitiusNet Ltd. has more positive view of the value than we have. But it also might be that we do not understand all that happens, and we only remember the problematic, bad scenarios."

I11 said that "Views differ. CitiusNet Ltd. doesn't currently make research and development work for us. They only make those service requests that we order, so we do not get any aspect of product development from them. We as clients feel that work is done well when it's done as ordered, but we do not often know that things could be done even better."

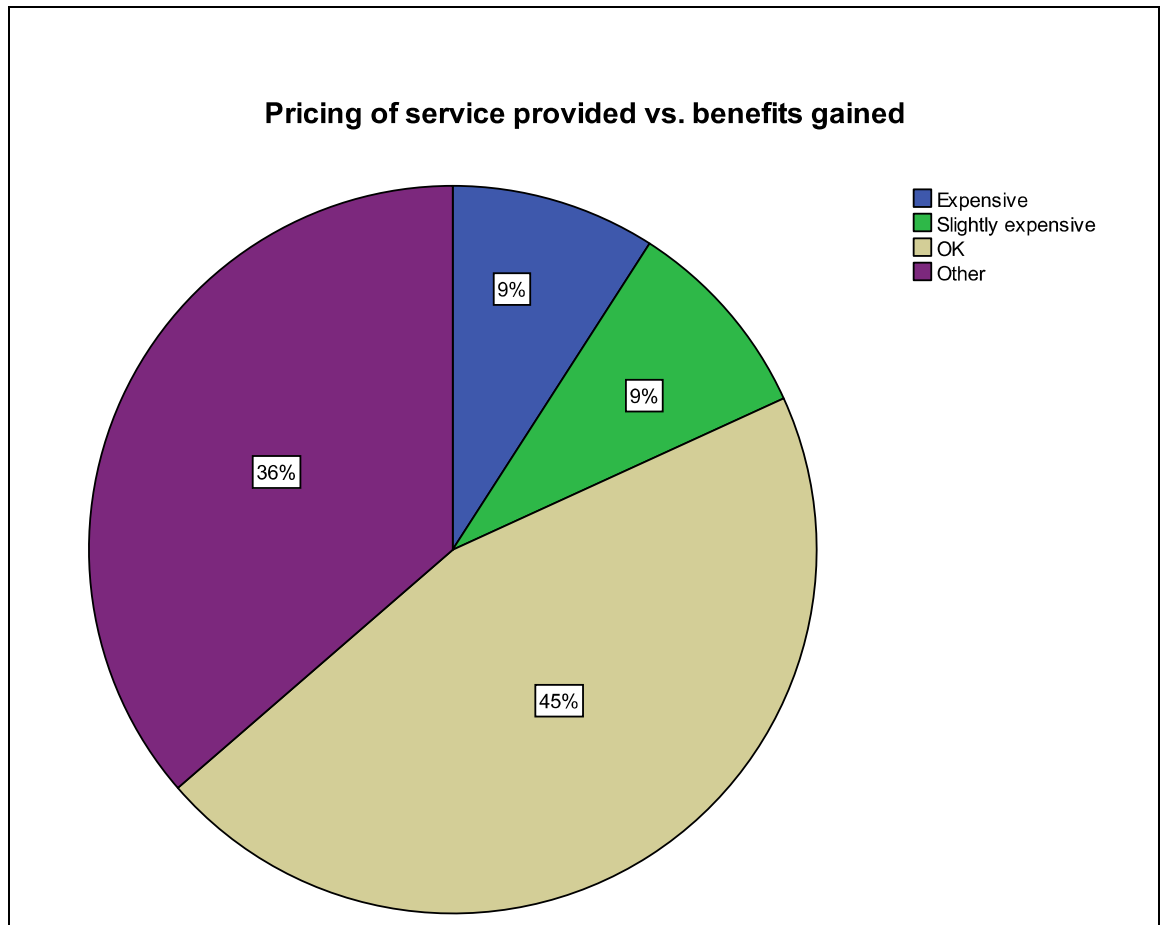


Figure 19. The pricing of service provided vs. the benefits gained

Last question regarding the commercial value was to compare price of ICT service provided by CitiusNet Ltd. to gained benefits. As shown in Figure 19, majority of customers (45%) thought that pricing of service when compared to benefits gained was OK. Minority (18%) thought it was slightly expensive or expensive. The answer 'Cannot answer' -mainly consists of answers that had no clear view.

I3 answered that "...pricing is at good level in a region of Kainuu. We haven't felt it too expensive."

I4 answered that "Different tasks should be priced differently. One should understand what are supporting tasks and what professional tasks are. Some other service providers pricing has been done better. Different tasks are priced differently."

I5 answered "How could I answer this correctly. It is damn expensive. Of course we get very good service, but it's lot of money that is used to buy service from CitiusNet Ltd. Pricing is

on the pain threshold and it makes to wonder, if there are cheaper, but as good, services. So CitiusNet Ltd. should check their pricing."

I6 answered "In some cases, I'm annoyed by the fact that someone comes over to check a problem, says 'Just push that button' and the bill is for fifteen minutes. So I'd say that pricing of service and benefit gained don't always compare to each other. Perhaps some tasks should be ignored, because if one bills something for fifteen minutes, he should at least come over and say 'Just push that button' for few times.

I7 answered "As a service buyer, the service feels expensive, but we always know what we pay for so the benefit is indisputable."

I8 answered "One can either think pricing as a whole or by products. In the future, we have to follow up pricing together. That we can go on with current concept, is an indicator that the pricing doesn't go badly."

I10 answered "I've been pondering after we made current service agreement that did our service level change any at all? Do we get more benefits when we pay more of the service? I'm not completely convinced about that. The new service agreement includes 2-3 hours per month worth of work time. Did we get more additional benefits from the agreement? These 2-3 hours per month should be used to checking of server etc. but is it included to the monthly reporting? Does the reporting show has it been done and what has been done? The reporting doesn't specify what is so called monthly maintenance."

I11 answered "Pricing is reasonable for the work done. But is the work done reasonable? Hourly rate of CitiusNet Ltd. is normal, but the value of the work itself should be defined."

4.4 Knowledge of CitiusNet Ltd. and the general review of the services

All the interviewees were asked what kind of knowledge is required from the staff of CitiusNet Ltd. so they can produce services for the client. They were also asked what kind of expectations they have for the services of CitiusNet Ltd, are they realised or exceeded. They were asked to describe what has been very good and successful in the ICT-services provided by CitiusNet Ltd., and have there been any flaws or weaknesses. They were asked to tell if

there is any waste in the service provided and what has been the best experience in the services provided by CitiusNet Ltd.

I2 answered that staff required "Knowledge of different Windows and virtualisation platforms, but also good communications skills. The current staff is knowing enough because answers in problematic situations have been found rather quickly." I2 said about the expectations that "CitiusNet Ltd. solves all the problems, sometimes even in very rushed schedule. I vehemently trust to the services provided by CitiusNet Ltd. and so on the expectations are also high." I2 answered that "reaction time, expertise and presentation of problems and solutions understandably enough" has been the very good and success in the ICT services provided by CitiusNet Ltd. As a flaw, I2 said that "Sometimes I thought that know-how is personified for just one person, and I was just thinking how many days and nights that person can stay in our server room. These days however CitiusNet Ltd. has more personnel, so responsibility is also shared between them." The best experience for I2 for the service provided was "The feeling that every problem can be dealt with and that there is always someone from whom to ask."

I3 answered that staff required "Knowledge of basic Windows workstation platforms, then knowledge of Windows server infrastructure. We have few special applications that require knowledge that we have to buy elsewhere. For example, our ERP-system. In my opinion CitiusNet Ltd. has had good professional skills to answer all our needs. There hasn't come up such a question that they haven't been able to answer. The reply has been swift." I3 answered that "Expectation is that our systems work 24/7. We work internationally around the world and so our systems need to work also the clock. Our staff travels a lot and their service requests can come up at very unexpected times, and they should be reacted swiftly. If person is travelling and he has a problem, the situation is usually dire." For the very good and successful thing I3 answered "In principle, it's the standardisation of our workstations. It has been very well implemented for us. We have quite standardised workstation environment. Much easier to govern and the hardware has worked well." As a flaw I3 answered that "The original planning of infrastructure was bit lacking. At the moment we have needs to move from old system to another one, for the old one doesn't serve us well enough. I do not know about the history of it, but scaling for the future could have been considered better at planning time. I can say that we shot a fly with cannon with those acquisitions at that time. Of course they came from the need back then, but when it was noticed that the system was too over-specified, it could have been lightened and the

maintenance made easier." For the waste in service I3 answered that "There really haven't been any waste. Perhaps we've have had bit more monthly costs when compared to amount of used service, but that has been corrected." The best experience for I3 has been "fast and friendly service".

I4 answered that "We need a support worker, who does so called basic ICT. That's what we need. And of course, we need those who understand architecture of ICT very broadly. Service provider should know different environments and not to be restricted only for the products they have been certified. Should be enough poker face to say that we are not the right service provider for you, and that you should turn to someone else. Let's put it this way. 60 percent of ICT understanding that we need in our business is found from CitiusNet Ltd., but there is a big part where we need help from outside. Also sometimes CitiusNet Ltd. is too local, and it cannot work internationally or nationally, but in those cases we go to services that CitiusNet Ltd. doesn't normally provide anyway." About the expectations I4 said that "In the early days, the 90's, our expectations were exceeded often. These days the story is different. Lately we have been disappointed that some tasks take long to accomplish. Expectations by euros don't compare to visible results." For a weakness in service I4 said that "CitiusNet Ltd.'s meaning is just to provide service. I can't see unexpected commercial value gain as their vision. The vision is that business keeps going. I've positively took note a note about service quality development, but I would like to see it also in practise." For the waste in service I4 said "About 20% of the time goes for tasks that are not productive from the clients' side. Every used euro should give more commercial value." For the best experience I4 said that "CitiusNet Ltd. is local company. The best experiences relate to the situations when there has been a very bad problems and we've have gotten quickly the help we have needed. Perhaps the successes also have been in the same kind of emergency situations. From other service providers it's very difficult to get anyone on the site, but from CitiusNet Ltd. it's possible to get people on site who know ICT and what to do to start repairs. Usually the problems get quickly solved. The greatest commercial value and the best experience is that we get quickly help in problematic situations."

I5 answered that knowledge of the staff was "Good. All things we have asked has been done as long as I've been in this company and worked with CitiusNet Ltd. and all the staff members we have been working with have known their jobs." I5 answered about expectations that "The staff from CitiusNet Ltd. has given ideas how something can be done better, and I think this has been kind of exceeding our expectations. CitiusNet Ltd. has

been able to govern our situations well. They have been able to tell where to invest and where not, where money should be used and where not."

I6 answered that the staff "CitiusNet Ltd. doesn't do any major things, even I can do some of them, so they are not science or art, but I think the knowledge should be broader or more of the staff should have the knowledge. For example, our main support person has very good knowledge to provide us services. The fact is that we get help from him. I'm always terrified when he isn't sitting behind his desk. My view and experience, also from what I've heard from others, is that we get help from him. If someone else is doing it, the service isn't provided well." For the both good and very successful and the flaw of service provided I6 answered "The knowledge of providing service for our company is held by one person."

I7 answered that "Those staff members that come here, should understand that we are all fingers and thumbs. Some of us understand ICT better, some of us don't. Technical things should be translated into common language." I7 answered about the expectations are in "...the reliability and the customer view of the service provided. Our needs have been taken into consideration well and the reliability has been achieved." About the expectations I7 answered that "The reporting has exceeded our expectations. It works well and is very well done." Good and successful in the services by I7 was "reliability and documentations of service provided as well as customer service." For a weakness and flaw I7 answered "There was a time when support personnel changed often and the readiness of service suffered, but we gave a feedback about it. Familiarity is very important for us." For the best experience I7 answered "The coming of application virtualisation. It has worked very well for us."

I8 answered that staff required "Communication skills with layman. Staff of CitiusNet Ltd. has to work with our people who use ICT daily to work without any actual technical qualifications. At least the people working in helpdesk should bear this in their mind and use such a language that is at the right level. They should be able to descend the same level of communication." I8 answered about the expectations that "Sometimes we encounter critical problems, which we just can't handle by ourselves. Some of the problems are such that in few days they start to cause significant business costs. Some of the problems are such that they prevent long-term development. If CitiusNet Ltd. can in these kinds of critical situations bring solutions, then they are doing very valuable work. The expectations are that these are the cases that CitiusNet Ltd. should concentrate." For good and successful in service provided I8 answered that "One person from CitiusNet Ltd. has been our support in

presenting our system solutions for our mother company. He's been able to present our case understandably and professionally. It has given us very much commercial value. I say again, communication skills, clear presentation of things and good documentation. All these have much weight in ICT when talking about quality and what ICT means to the business." For the best experience I8 answered "That we survived together the last year. I think that's good the best experience."

I9 answered that "The staff needs to keep up with changes in our systems. We have currently started using new ERP-system and I think CitiusNet Ltd. will have to study it to gain the knowledge." I9 answer about the expectations that "CitiusNet Ltd. does very valuable work for and the expectation is that they should concentrate gaining more or wider knowledge of our systems. The customer service is done very well and it exceeds our expectations constantly." The good and successful in the service provided by I9 was "addressing and handling issues." For the best experience I9 answered "The availability of service provided."

I10 answered that the staff required "More and more of server, network and infrastructure knowledge. The knowledge will concentrate on the hardware side of ICT and less for the software support, since basic usage of programs is common these days." The good and successful in the service by I10 was "The flexibility and the fact that customer can see the entrepreneurship behind the service. When there is a real emergency, and we cry for help, things will happen." For the best experience I10 answered "It's the flexibility of the service."

I11 answered that staff required "The basic knowledge is well done, but if there comes any more specialised task, knowledge of CitiusNet Ltd. isn't enough and the task turns into practise." The good and successful in the service by I11 was "CitiusNet Ltd. is local small company where people are familiar. They also know our company and are familiar with our people. So interaction works well. They know our history and infrastructure from very long time." For a weakness and flaw I11 answered "Lack of knowledge in some areas. Some things go through practise. Economically results are not always the best." For a waste in service I11 answered "I'd expect some vision for development from CitiusNet Ltd." The best experience in the service provided answered "It's the flexibility. Even if we have contractual relationship, everything needs not to be agreed separately."

4.5 Reliability of service

All the interviewees were asked questions about reliability of the services provided by CitiusNet Ltd. They were asked how would they measure reliability of the services and how would the interviewees measure the accuracy of the information they get from the CitiusNet Ltd. regarding services. They were also asked how well CitiusNet Ltd. keeps promises that they make for the companies and how well CitiusNet Ltd. does things right the first time. They were asked to describe whether the billing of the services was clear and accurate.

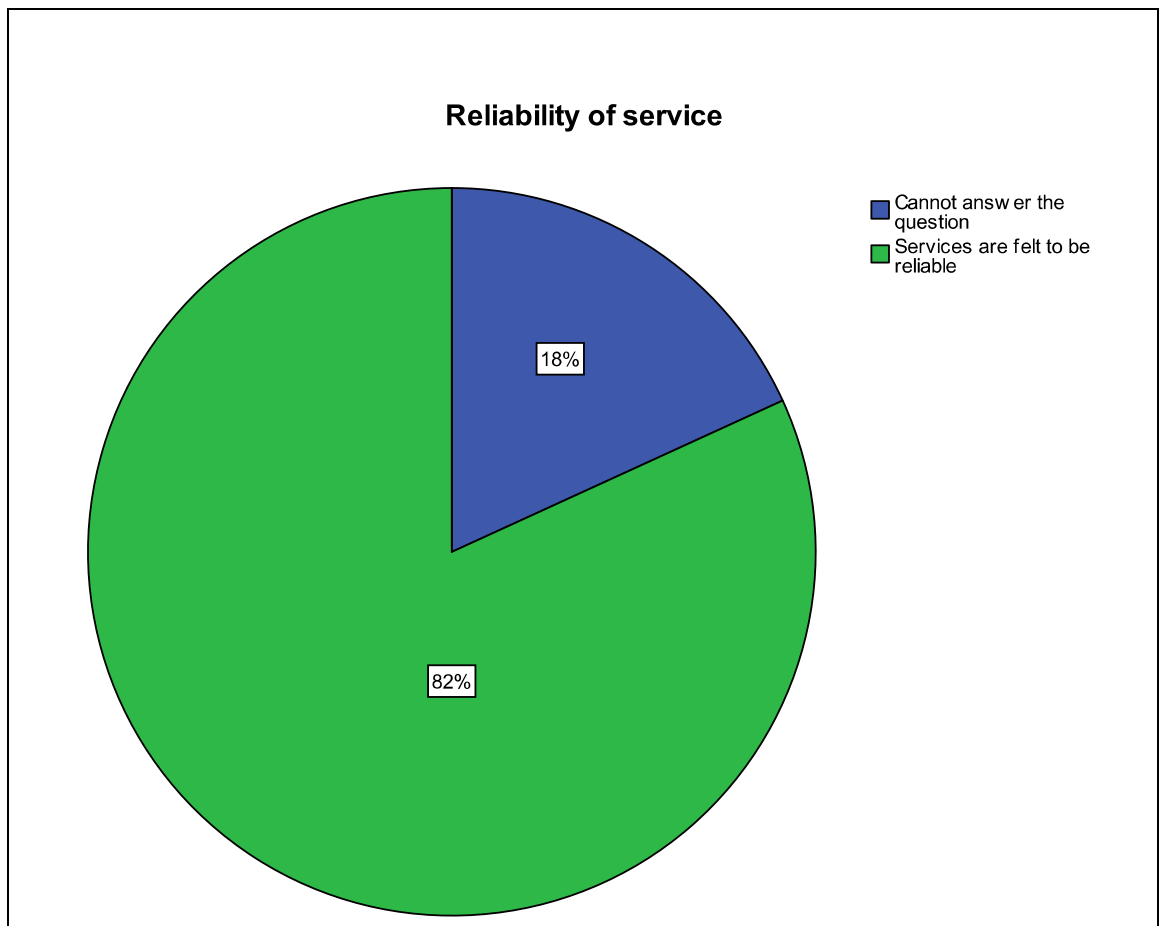


Figure 20. Reliability of the service provided by CitiusNet Ltd.

All of the interviewees who could answer this question felt that services provided by CitiusNet Ltd. were felt to be reliable as shown in Figure 20. Next there are some other comments related to the reliability of service.

I2 answered that "I think CitiusNet Ltd. is very reliable. There hasn't come up a feeling that I should call to some other colleague and verify whether thing is as said."

I3 answered that "The service is reliable and our service requests get attention. It's a good practice that when client makes a service request he gets acknowledgement that task has been accepted. It tells that something is being done for the task or that it at least has been notified. Also all the request we have made have been solved."

I4 answered that "The service is reliable, but the harder the service requests are, we get a feeling that they don't get enough attention. It might be that those requests take some time to process at the CitiusNet Ltd., so we get the feeling that they don't get enough attention. The tasks that CitiusNet Ltd. is familiar give a feeling that they can be handled well, but sometimes there's a feeling that CitiusNet Ltd. lacks knowledge."

I5 answered that "Service provided by CitiusNet Ltd. are reliable. I only remember one time that I have called to the support service at Friday night and didn't reach anyone. Then I got hold of someone and the urgent request was taken care of with a short delay. The main point however is that the thing was handled, because in those kinds of urgent situations we also are in very much of a hurry to get our business work and services to run."

I7 answered that "Reliability of the service is good. Sometimes there's a feeling that the same service haven't been handled as well as usually, but it's not really about the skills of the staff member providing the service, but more about his knowledge of our systems. The solving of normal problems just takes bit more time."

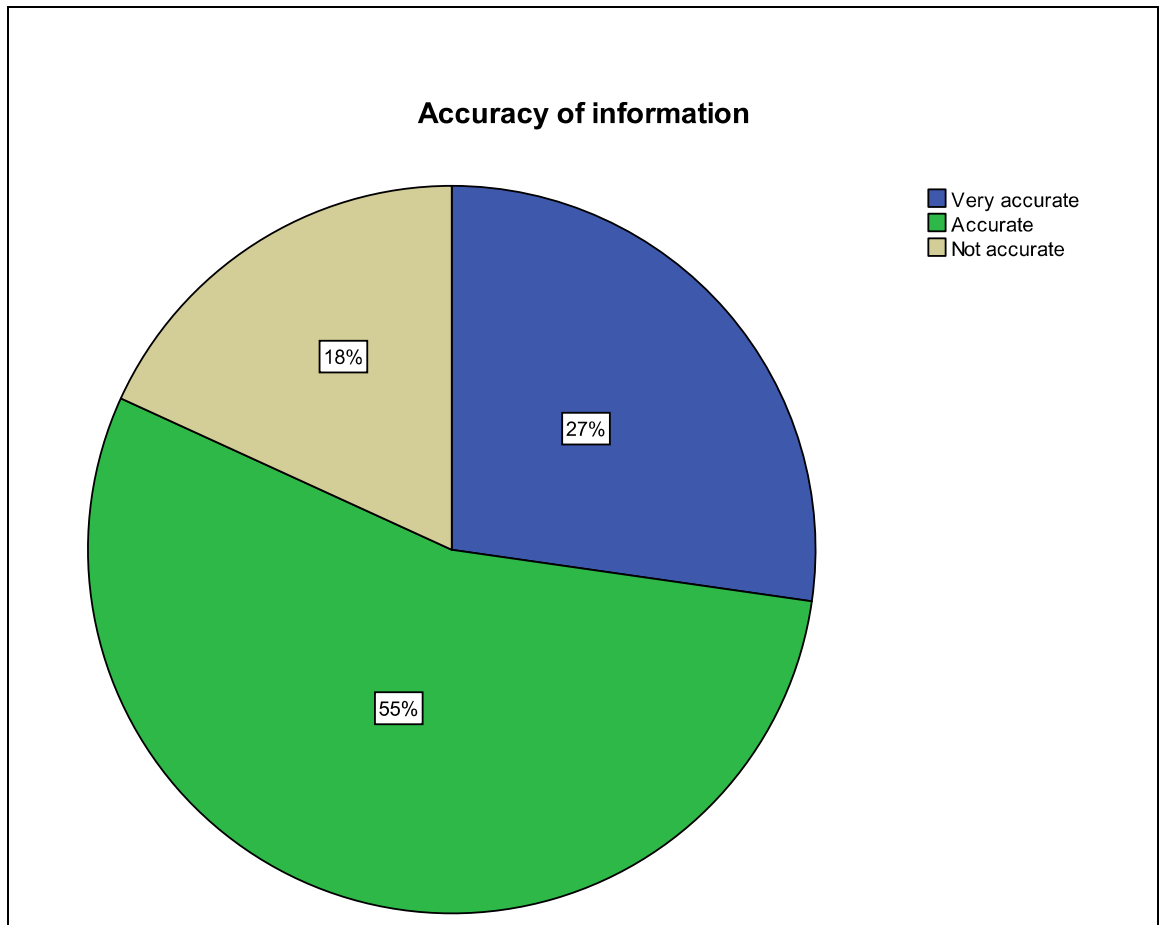


Figure 21. The accuracy of information provided by CitiusNet Ltd.

As shown in Figure 21, majority of the interviewees, 72 %, thought that accuracy of information provided by CitiusNet Ltd. is accurate or better. Minority said that information is not accurate.

I3 answered about the accuracy that "Well, undeniably the report that CitiusNet Ltd. automatically generate is confusing and it doesn't clearly depict what has been done. Of course reading it for a while, one learns its structure. If something could be done better, I think it's the automated reporting. It should be more easily read."

I7 answered about the accuracy that "The information is accurate, but sometimes it contains some professional language and needs to be understood."

I11 answered that "The accuracy of information depends of the person. Sometimes just yes-no answer is not enough, but the answerer needs to understand the infrastructure and environment, and also the person making the question."

All the interviewees agreed that CitiusNet Ltd. keeps the promises it makes for their companies well. Additional comments were give by I5, who said that "CitiusNet Ltd. has done all that it has promised to us" and by I10, who answered that "When something is promised, those promises are kept."

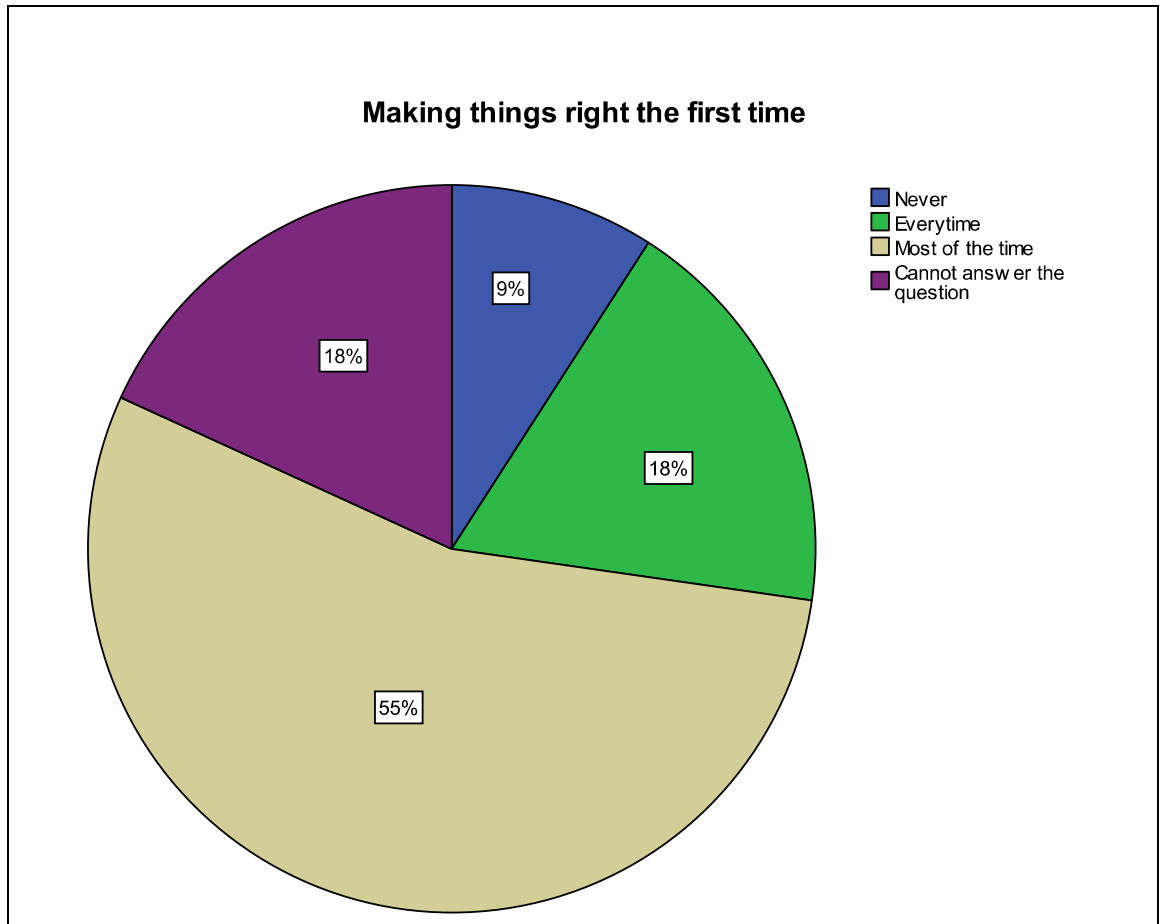


Figure 22. The ability of making things right the first time.

As shown in figure 22, majority of the interviewees 73%, said that CitiusNet Ltd. does things right at least most of the time. One interviewee said that first time almost goes wrong and is considered as a practice by their company.

All interviewees thought that the billing by CitiusNet Ltd. was clear and accurate. Some additional comments were given by I5, who said that "Some time ago I asked a bit more accurate breakdown of billing report, and after that it has worked well. So quarterly I now get a clear listing of service tasks provided. It is very good." and I6, who said that "Billing is accurate, works and CitiusNet Ltd. should never bargain it down."

4.6 Warranty of service

All the interviewees were asked questions about warranty of the services provided by CitiusNet Ltd. They were asked to describe the warranty of the service. Supporting questions of warranty involved know-how of the CitiusNet Ltd., know-how of substituting staff members, the ability of service to adapt to sudden change, communication skills of the staff and the security of the services provided. They were also asked to describe the ability of CitiusNet Ltd. to produce custom-made services and creative solutions for their companies. They were asked to assess CitiusNet Ltd.'s ability to use new technology to create new solutions and how this new know-how is brought forward. They were asked to assess the ability of CitiusNet Ltd. to provide system solutions for their companies.

I1 answered that "The professional skills of the CitiusNet Ltd. are good." About substituting I1 answered "It's just that people tend to like one person. If we, as a client, could choose we would have only one person servicing us that would never be absent." The service is provided by enough staff members. The service provided adapts well for sudden changes. I1 answered that communication skills are "Usually good enough that we get along. Sometimes the nerd language isn't understandable, but those cases are exceptions and they are solved by asking a simplified answer." I1 answered that CitiusNet Ltd.'s ability to provide custom-made services and creative solution for them is good. About the use of new technologies I1 answered that "CitiusNet Ltd. should bring forward practical, everyday solutions. When the service provided concerns servers, we are dependant of CitiusNet Ltd. We cannot demand much from those services, because we do not have that kind of knowledge."

I2 answered that "The professional skills are excellent. The professional know-how is current and there are multiple experts. So the warranty of the service is good. CitiusNet Ltd. has ensured as that is good service provider." About number of people providing the service, I2 answered that "Until now we have always found an expert for our problems from CitiusNet Ltd. We don't need to ponder who it might be." I2 answered that "The staff of CitiusNet Ltd are capable of communication and there's not much to do better in those skills." About the security of the service I2 said "I value the security of the service highly. For example, if we think that does our company's information leak through CitiusNet Ltd., I doubt that." I2 answered that CitiusNet Ltd.'s ability to provide custom-made services is good. About the creative solutions, I2 answered "We don't have experience of them. We

haven't had to make any creative solutions." About the new technologies I2 answered "Our virtualised environment was a proof of CitiusNet Ltd.'s know-how and also show that their know-how is up to date. Only very few companies that I know of, were doing any virtualisation back then. For example, our ERP provider had an absolute opinion that their software won't work on virtualised platform. But there it is installed, and working." About new marketing of technologies, I2 answered "Of course, we don't always know to ask if there are new solutions for our current systems. So if CitiusNet Ltd. had something to offer, it would be great to tell us that this could work better with this. At the moment CitiusNet Ltd. doesn't do this kind of post marketing."

I3 answered that "Personally, I see that staff of CitiusNet Ltd. are professionally skilled. From the view of company, we have sometimes gotten complaints that service doesn't work. But it's very hard to target, whether it's due hardware, software, users or about the service itself. Of course everyone does want value for their money. In general, our company has been satisfied of the professional skills of CitiusNet Ltd." I3 answered about the substitutes that "CitiusNet Ltd. has hired new staff members and they have gotten quite well into the needs of our company. Sometimes there has come up a situation, where we've had to wait the return of the usual guy who services our company to solve something. Those kinds of situations haven't been emergencies." About security of the service I3 said "The security is good. I usually worry much about security issues when developing or using some system. It's been glad to notice that security is very important thing for CitiusNet Ltd., as well as, taking care of the security for its customers." I3 answered that the ability to provide custom-made services is good. About the creative solutions I3 answered "I see here a point for future development. Perhaps CitiusNet Ltd. and us could together search for better solutions for us. I'd really would want active marketing of new solutions and technologies." About the using new technologies for new services I3 answered that it was good, but about the marketing of new technologies he answered "We only get information about new technologies when we ask about them. When our current infrastructure was created, the latest technologies of those times were used. Post marketing could be more efficient. CitiusNet Ltd. should offer new solutions for their current clientele, if they think those solutions suit better for the client companies."

I4 answered that "Professional skills of the personnel are good. Skills are learnt by doing, I don't believe much in theoretical world. However CitiusNet Ltd. as a company lacks knowledge from certain parts, like information security." About substitutes I4 answered "In

my opinion technical know-how is as good. Then again how well they know our business, people or their needs. That's where the gap is, which is both good and bad thing. It would be good if one could make such good service that changing the staff member providing it wouldn't show. Unfortunately CitiusNet Ltd. cannot produce such a good service yet that substituting wouldn't affect the quality of the service." About the adaptability of the services I4 answered that "I have no experience that changes would have stopped processing of the service request. At times we get questions, but the adaptability works well. Sometimes personal approach, instead of email would be better. One should be able to assess which is a critical thing and in those cases personally approach." About substitutes and communication skills I4 answered "For certain persons sometimes comes up a feeling that communication skills are not good. Sometimes with substitutes we haven't communicated at all in any way. Not by email, not by phone, not even by talking. Substitute just wanders around and we think why he runs and looks panicked. Otherwise communication skills are good, and written material we get is excellent." About security of the services provided I4 answered "About the security of the service I have a small fear. At conversation level CitiusNet Ltd. is very understanding of service security, and we have both agreed that it deserves attention. But at the level of doing things, it's very hard to take care of everything. At general level CitiusNet Ltd. security is above the average for service provider companies like them." I4 answered about the custom-made services that "I doubt that there is any company in region of Kainuu that has succeeded as well in providing services for us, except those companies that specifically makes services related to our business." About the creative solutions I4 answered that "The world gets more complicated every day, so the creative solutions become more difficult and rare. Lately there haven't been much creative solutions. I would have expected them in some situations." About the new technologies I4 answered "I feel that CitiusNet Ltd. has a vision of different kind of new solutions. But the vision is not broad enough. It concentrates mainly on things that CitiusNet Ltd. has know-how."

I5 answered that "The professional skills are excellent. Knowledge of the substitutes is good. As well as are the communication skills of the staff." About the security of the services provided I5 answered "The security is at good level. CitiusNet Ltd. takes care of security well."

I7 answered that "The professional skills of the CitiusNet Ltd. are excellent." About the substituted I7 answered that "It's not about lack professional skills, but taking care of some problems takes longer because the substitute isn't informed about everything." I7 answered

about the adaptability of the services that "Sometimes we don't even know that service have had to adapt because of software provider. So adaptation of services works well." About the communication of CitiusNet Ltd., I7 answered that "Communication skills are fine, but sometimes staff member use professional language that we don't understand." About the security of the services provided CitiusNet Ltd. I7 answered "I believe they are safe. CitiusNet Ltd. has given us good tips how to make some things work better and safer."

I8 answered about the service warranty that "CitiusNet Ltd. has provided us with ICT services nearly twenty years, so there has been both success and failures." About the professional skills I8 answered "The perspective I have about the skills of CitiusNet Ltd. is one where I check how well CitiusNet Ltd. can communicate, report and present services and options. The challenge is to find the areas where CitiusNet Ltd. is good, because it cannot be good in everything." About the communication skills I8 answered that "People want their problems solved quickly. If they cannot be solved quickly, then instead of complex technical description, is more important to give an estimated schedule when the problem will be solved. This gives the customer experience and proof that his problem is taken seriously. Problem for the customer is very great. For this feeling of taking the problem seriously cannot be underestimated." About the security of the services I8 answered that "If we are talking about information security, then the wish of the customer is that it would be as safe as possible." Answered about the custom-made services that "The critical factor is to find out those areas, where custom-made services can be rationally done." About the creative services I8 answered "CitiusNet Ltd. has the best possibilities to provide creative solutions because there is so much common history between our companies and their knowledge of our infrastructure is very good. As an aspect of co-operation, and in view of CitiusNet Ltd., those things are strengths that should be maintained." About providing system solutions I8 answered "Our architecture has complicated, and is getting more complicated every day. We need help to maintain it from somewhere. I think this is one theme that should be openly discussed."

I9 answered that "Warranty of the services is good." About the substituted I9 answered that "The know-how of the staff is probably good, but when person doesn't provide services us daily, he needs to search what is found and where. However, service requests haven't left unhandled because of this unfamiliarity."

I10 answered about the custom-made services that "In basic services the customization works well. But if CitiusNet Ltd. doesn't have certain service, they don't offer to build it." About the new technologies I10 answered "There isn't enough information about new solutions. They are not marketed." About providing system solution I10 answered "I don't doubt that CitiusNet Ltd. wouldn't be able to provide new system solutions for us."

I11 answered that about substitutes "Technical know-how is alright. However, that is not enough. Personnel providing service to us need to understand our environment, customs and people. Random substitutes don't get deep enough in our daily life as the people who provide it usually. I11 answered about the custom-made services that "The ability to provide custom-made services depends much of the services we need. Some of the services they can provide, some of them they can't." About the ability to provide creative solutions I11 answered "It's quite weak." About the new technologies I11 answered "CitiusNet Ltd. doesn't have enough resources to follow up constant development in ICT. It's a question of resourcing. Everything is not profitable. And no company can do or know everything."

4.7 Imago of CitiusNet Ltd.

All the interviewees were asked questions about imago of CitiusNet Ltd. They were asked to assess imago of CitiusNet Ltd., by office appearance, by staff appearance, by the handling of service and by the quality of documentation and reports. In addition they were also asked to describe reputation and trustworthiness of CitiusNet Ltd. in region of Kainuu. The interviewees were also asked to describe how CitiusNet Ltd. differentiated from other local service providers.

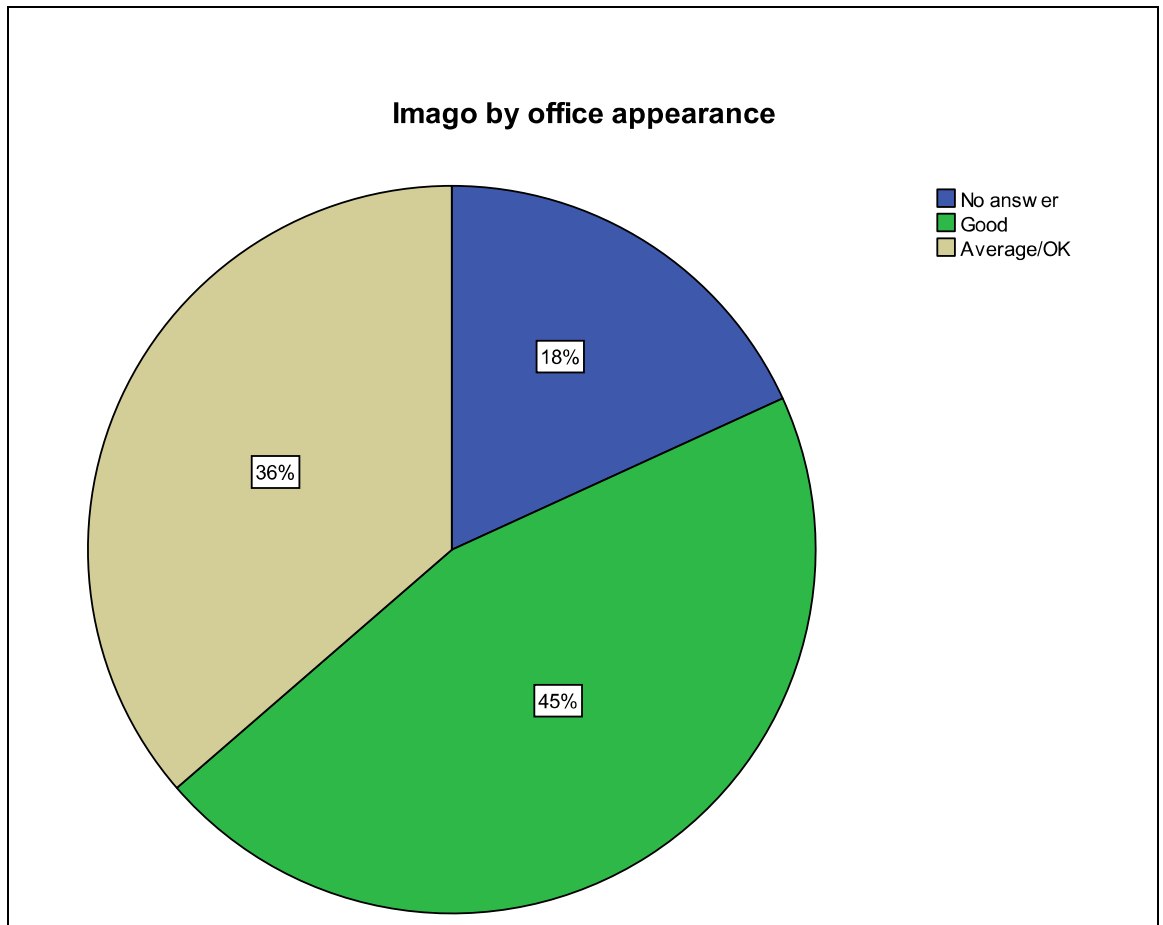


Figure 23. Imago of CitiusNet Ltd. by office appearance

As shown in Figure 23, imago of CitiusNet Ltd. by office appearance was at least average by all the interviewees who answered. Majority (46%) thought that imago was good and minority (36%) thought that it was average/OK.

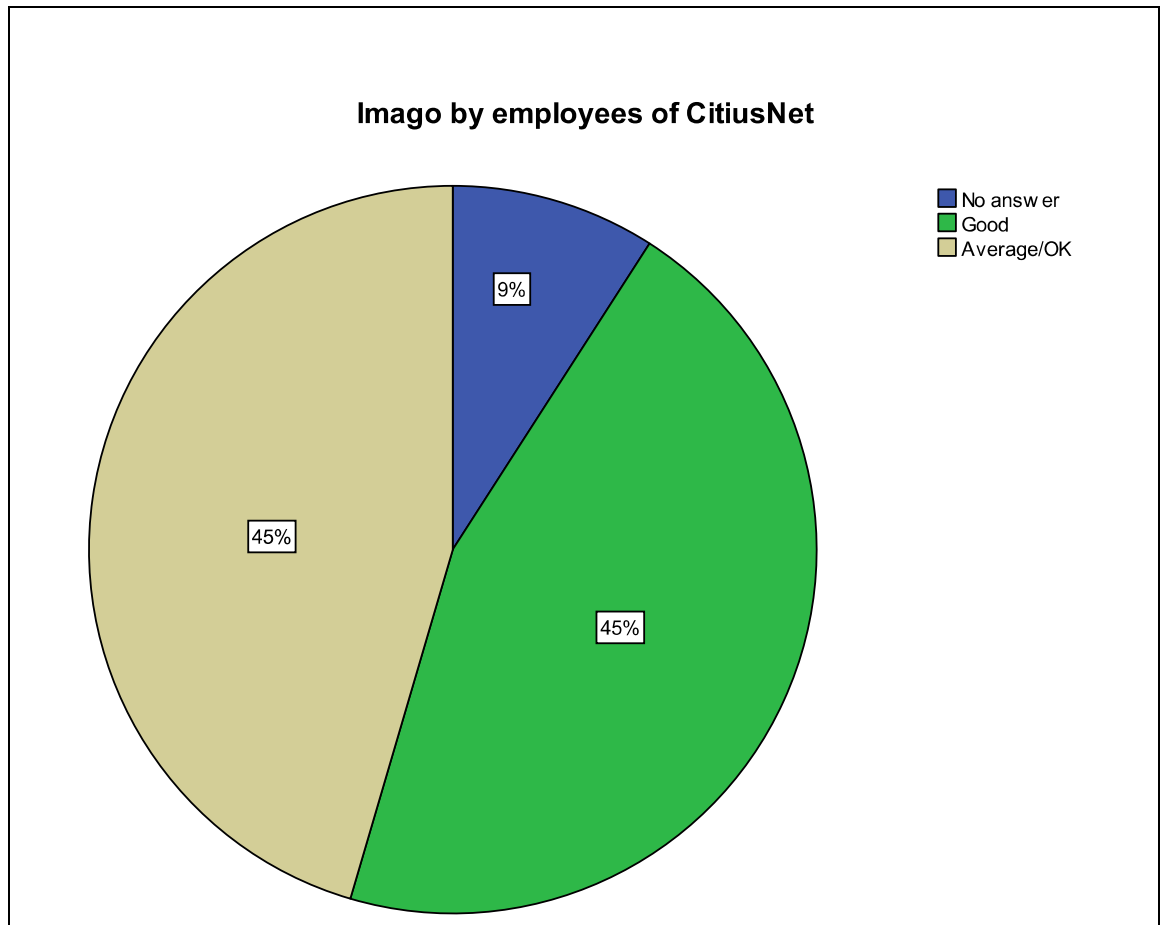


Figure 24. Imago of CitiusNet Ltd. by appearance of employees

As shown in Figure 24, imago of CitiusNet Ltd. by employees' appearance was at least average by all the interviewees who answered. Half (45%) thought that imago was good and half (45%) thought that it was average/OK.

I1 answered the question that "Outlook of the staff members of CitiusNet Ltd. is businesslike. The staff members that daily visit our company haven't caused any kind of conflicts."

I8 answered the question that "Members of CitiusNet Ltd. move in our premises, and in our premises also move our customers. If there were any kind of IT trolls moving around here and causing negative attention, it would be unpleasant thing. But there is no such experience."

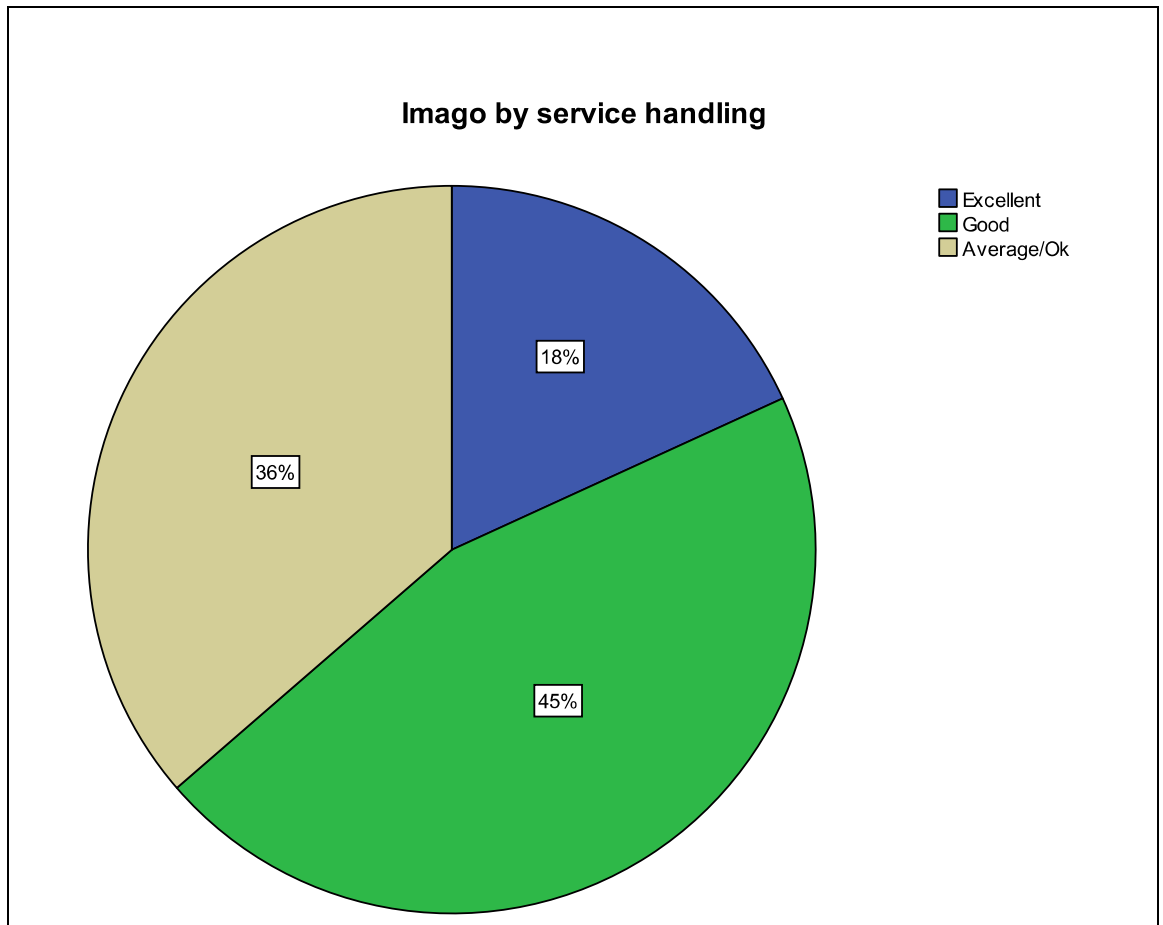


Figure 25. Imago of CitiusNet by handling of service

As shown in Figure 25, imago of CitiusNet Ltd. by handling of service was at least good by majority of the interviewees (63%). Majority (45%) thought that imago was good and minority (18%) thought that it was excellent.

18 answered about imago of service handling that "Certain basic quality of service has to be achieved. And that is gained mainly by secondary small tasks, for example working computers in negotiation rooms. After these computers comes ergonomics. Improving direct experiences of the user to improve imago of service handling and quality of the service."

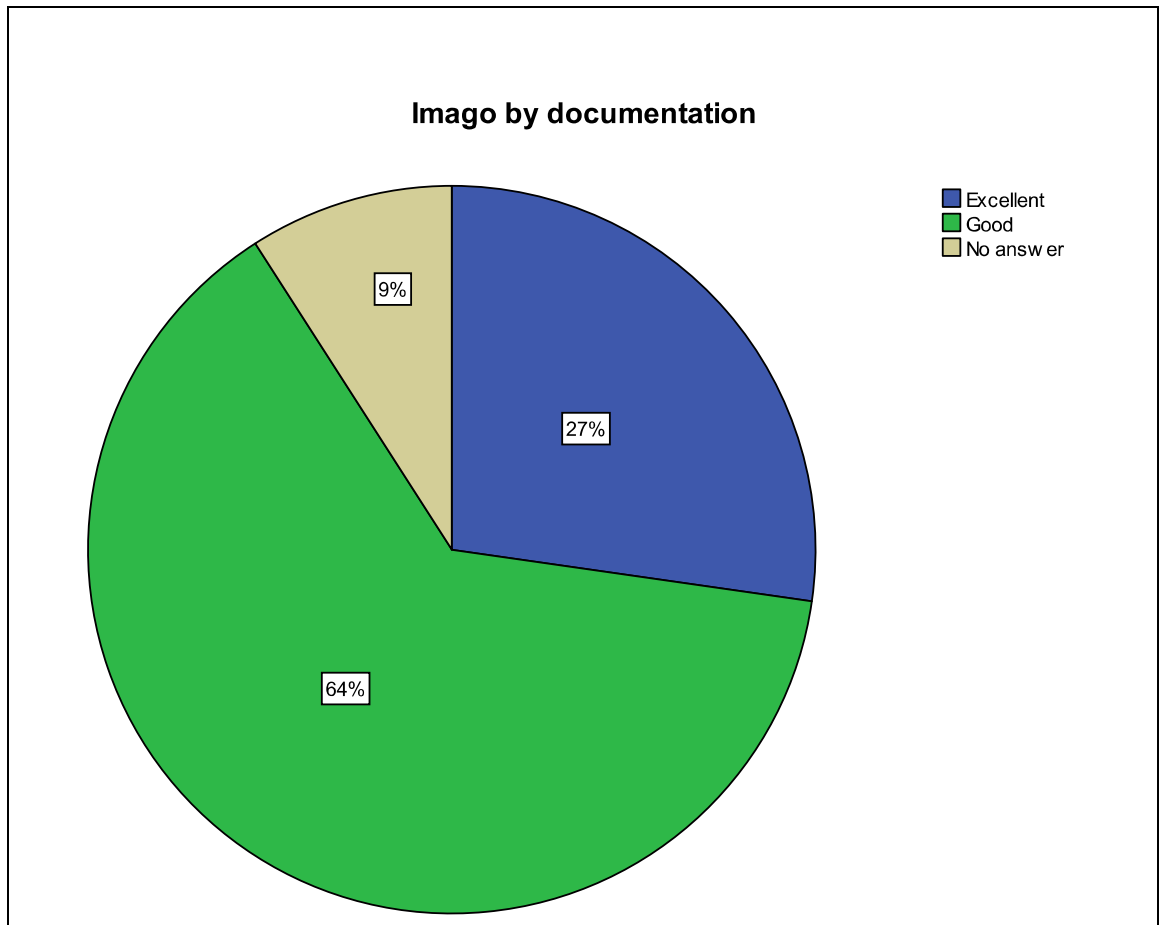


Figure 26. Imago of CitiusNet By documentation provided to customers

As shown in Figure 26, imago of CitiusNet Ltd. by documentation provided to customers was at least good by majority of the interviewees (91%). Majority (64%) thought that imago was good and minority (27%) thought that it was excellent.

I3 answered about the imago by documentation "Quotes and other documentations are provided in very good quality."

I4 answered about the imago by documentation "The best part of CitiusNet Ltd.'s service is documentation. It's been good and fine quality from the 90's. Good documentation is strength of CitiusNet Ltd. They should not worsen it."

I5 answered about the imago by documentation "Imago by documentation is excellent. CitiusNet Ltd. accurately reports everything. If we need to back and check something, the information is easily found."

I7 answered about the imago by documentation "All material CitiusNet Ltd. has provided to us has looked fine."

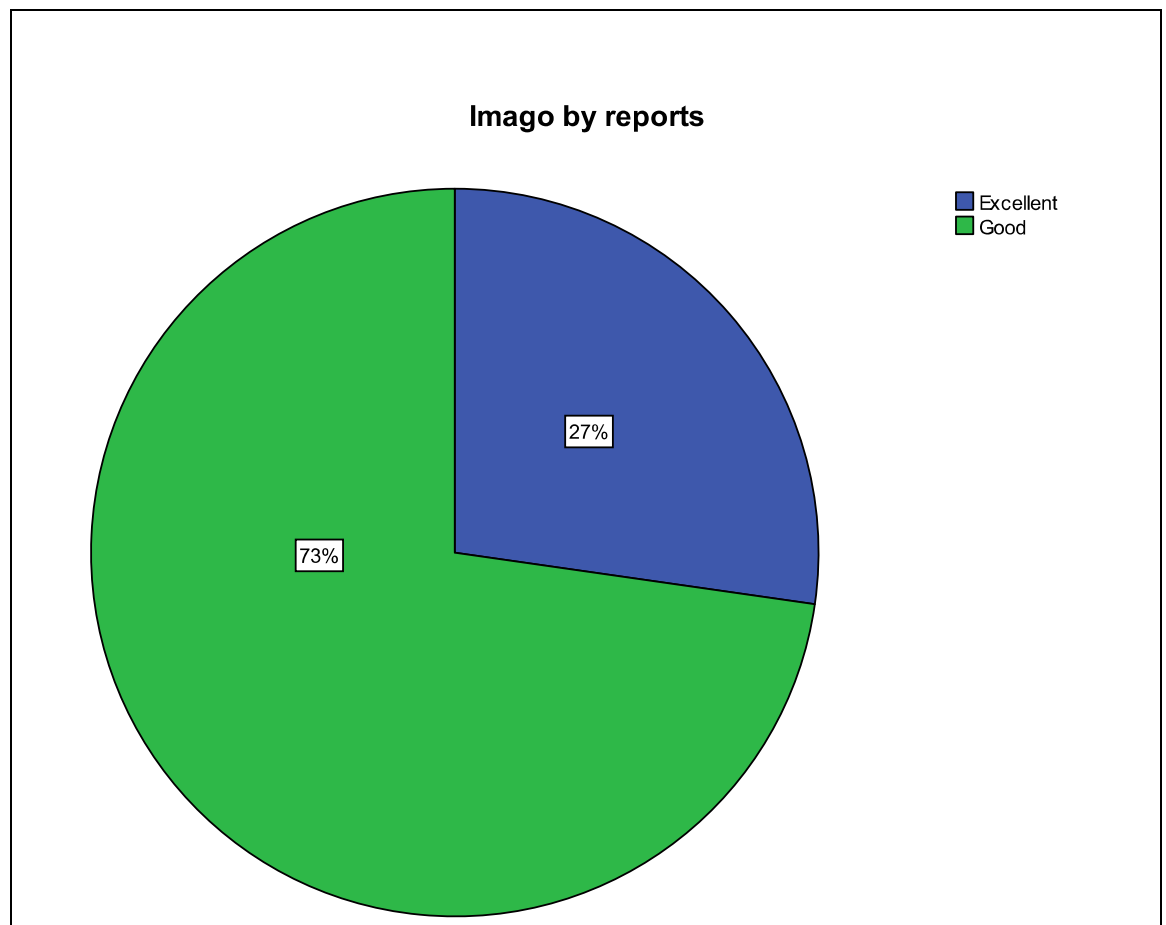


Figure 27. Imago of CitiusNet Ltd. by reports provided to customers

As shown in Figure 27, imago of CitiusNet Ltd. by reports provided to customers was at least good by all of the interviewees. Majority (73%) thought that imago was good and minority (27%) thought that it was excellent.

I1 answered to the imago by reports that "Reporting is good, but I expect bit clearer quarterly reports. They should clearly show without too much detail to which part the ordered service requests have been targeted. Part meaning section of our infrastructure, like workstations, servers, systems, software etc. Quarterly clear one page report, that don't need to tell what has been done, but how many hours of work to previously mentions parts have been spend."

I2 answered that "Imago by reports is good. When I've gotten solution to one service request, I can later find it easily again."

I3 answered to the imago by reports that "Reporting is good, but could be bit more easily understandable."

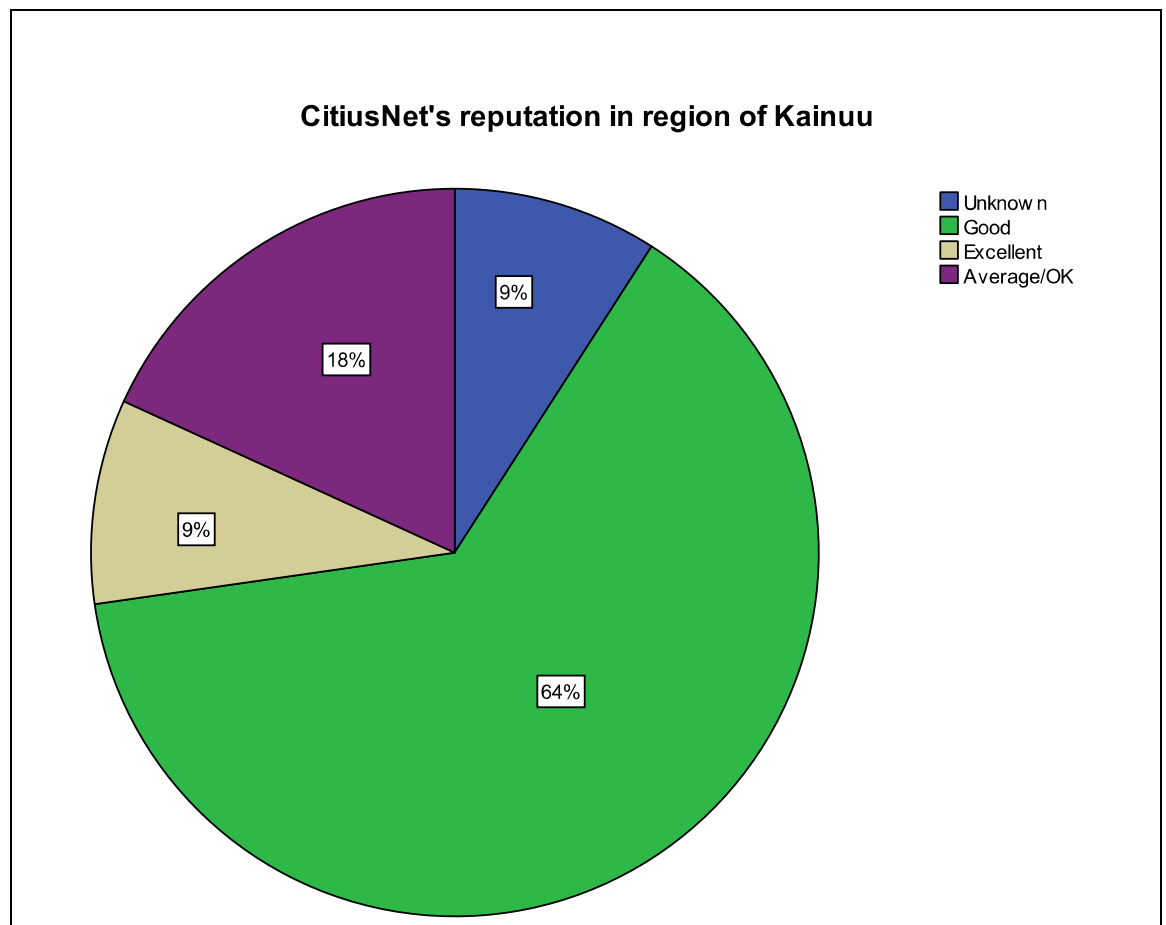


Figure 28. Reputation of CitiusNet Ltd. in region of Kainuu

As shown in Figure 28, CitiusNet Ltd.'s reputation in region of Kainuu was at least good by majority of the interviewees (73%). Majority (64%) thought that reputation was good and minority (9%) thought that it was excellent. Also minority (9%) thought that CitiusNet Ltd.'s reputation in region of Kainuu was unknown and distant.

I1 answered to the reputation of CitiusNet Ltd. that "From what I have heard from other companies, is that CitiusNet Ltd. is bit unknown and distant organization. That's what they think of it. They don't necessarily even know what kind of services CitiusNet Ltd. provides, and they think that CitiusNet Ltd. is too big company for our needs. Like CitiusNet Ltd. is company with expert consultants. It is quite big and has high quality, but is sometimes expensive."

I2 answered to the reputation of CitiusNet Ltd. that "It's probably regionally the leading provider of ICT services."

I3 answered to the reputation of CitiusNet Ltd. that "I haven't heard any complaints about quality or production of their service, never."

I4 answered to the reputation of CitiusNet Ltd. that "CitiusNet Ltd. is highly considered in the region of Kainuu."

I10 answered to the reputation of CitiusNet Ltd. that "It is one of the rare providers that can produce services of such scale as they do."

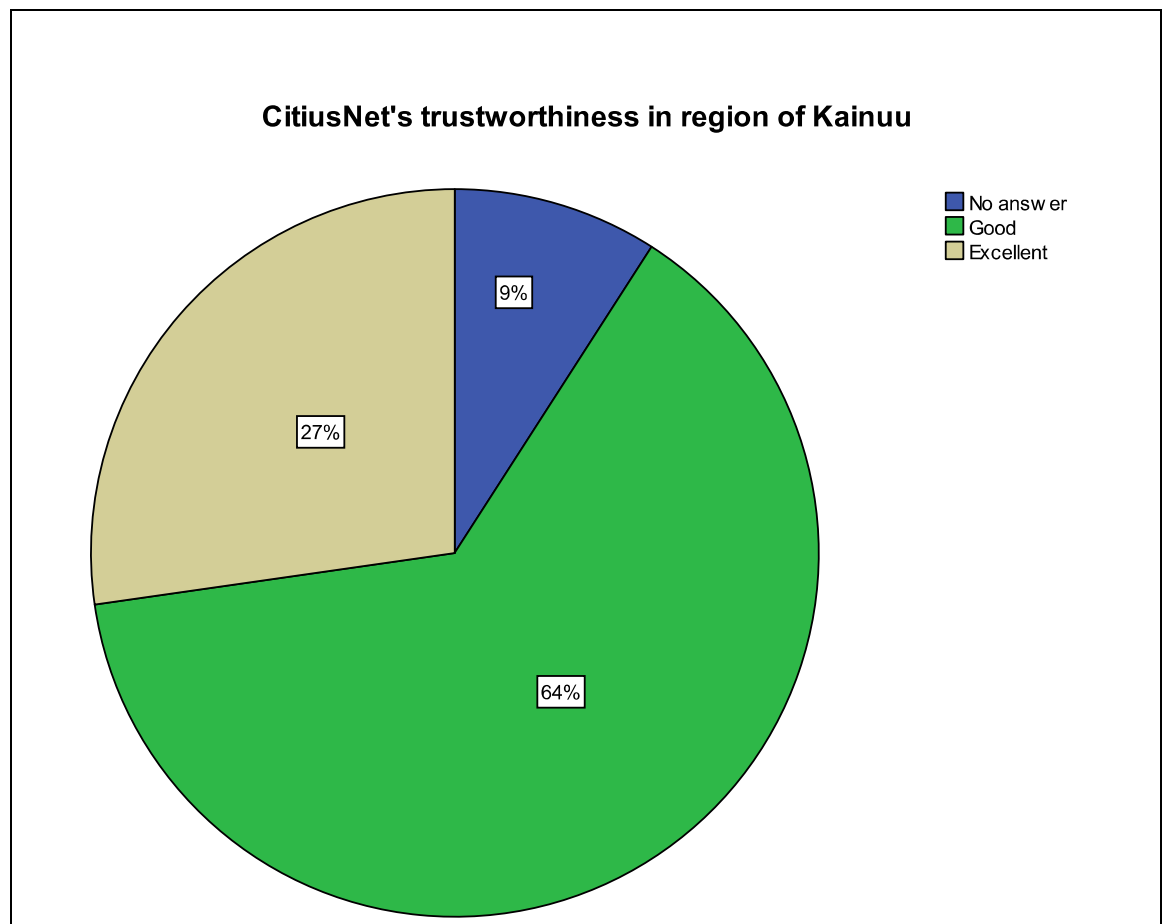


Figure 29. Trustworthiness of CitiusNet Ltd. in region of Kainuu

As shown in Figure 29, trustworthiness of CitiusNet Ltd. was at least good by all of the interviewees who answered the question. Majority (64%) thought that imago was good and minority (27%) thought that is was excellent.

I2 answered to the trustworthiness of CitiusNet Ltd. that "Very trustworthy long-timed company."

I10 answered to the trustworthiness of CitiusNet Ltd. that "CitiusNet Ltd. is a local company. There works local people, and their service orientation is much better than other companies."

About the CitiusNet Ltd.'s differentiation from other local companies, I2 answered that "CitiusNet has good service and adaptability. It is independent and trustworthy expert organization."

I3 answered about differentiation that "What makes it differentiate most, is that it's local company. Enough personnel locally can always provide superior services then those companies which are located in Southern Finland, who work remotely."

I7 answered about the differentiation that "CitiusNet Ltd. is trustworthy and customer-oriented company."

I8 answered about the differentiation that "CitiusNet Ltd. is specialized provider of custom-made ICT services."

I11 answered about the differentiation that "CitiusNet Ltd. probably is the biggest ICT-service company in this region. It has most clients and is generally more visible than other similar companies."

4.8 Empathy

All the interviewees were asked questions about the empathy of CitiusNet Ltd. They were asked to assess empathy of CitiusNet Ltd., by interaction between CitiusNet Ltd. and their company. They were also asked to describe how well staff of CitiusNet Ltd. understand their company's business processes and how customer friendly they are. They were asked whether they have proactively gotten improvement suggestion for the services or systems maintained by CitiusNet Ltd. They were asked to describe whether they get enough options and how well CitiusNet Ltd. answered to the customer requirements in competitive situation. They

were asked how flexible CitiusNet Ltd. is as a business partner, and how would they assess commitment of CitiusNet Ltd. to better both companies businesses.

All the interviewees thought that interaction between CitiusNet Ltd. and their company is good and open. I7 answered that "The interaction is good and open. We have good communication at all personnel level." and I8 told that "Good interaction is a critical success factor."

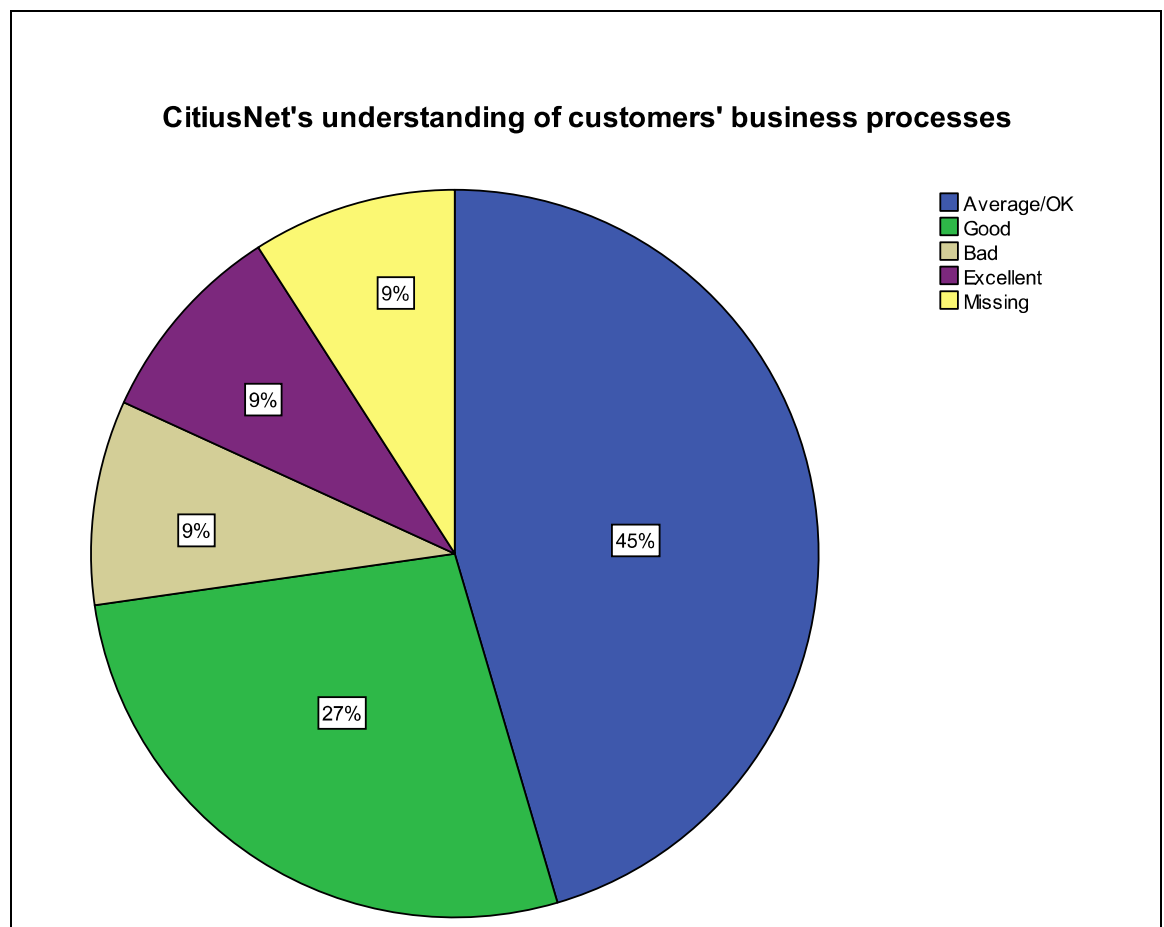


Figure 30. CitiusNet Ltd.'s understanding of customers' business processes

Majority of the interviewees (81%) thought that CitiusNet Ltd. understands at least at an average level, as shown in Figure 30. Minority thought that the understanding is bad. Some additionally answered that this could possible point for improvement.

I2 answered that "Long-timed co-operation with CitiusNet Ltd. allows them to understand our business rather well."

I7 answered that "The CitiusNet Ltd.'s understanding of our processes has improved all the time, so I think it's at the good level at the moment. We have thought solutions, like information security, together. All this has been very fair, because we have been told straight that CitiusNet Ltd. could offer us much more expensive solutions, but would they services us at the right capacity?"

I8 answered that "The CitiusNet Ltd. has the most excellent prerequisites to understand our business, and they shouldn't lose it. Understanding of our environments and history shouldn't stay with one or two people. CitiusNet Ltd. has an advantage to other competitors in understanding us."

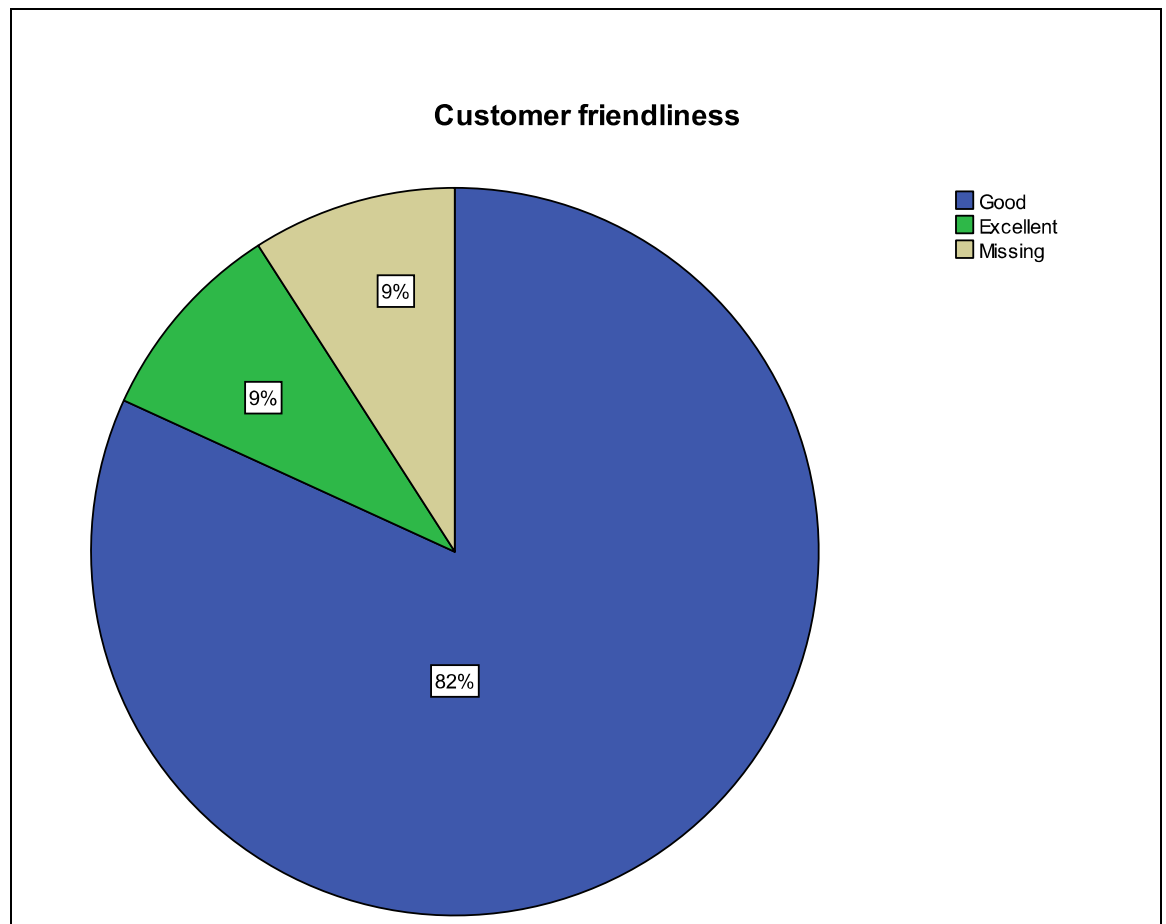


Figure 31. The customer friendliness of CitiusNet Ltd.

All of the interviewees (91%) thought that customer friendliness of CitiusNet Ltd. is at least at good level, as shown in Figure 31.

I2 answered that "I do not fear anyone of the CitiusNet Ltd.'s staff. So they are very customer friendly people."

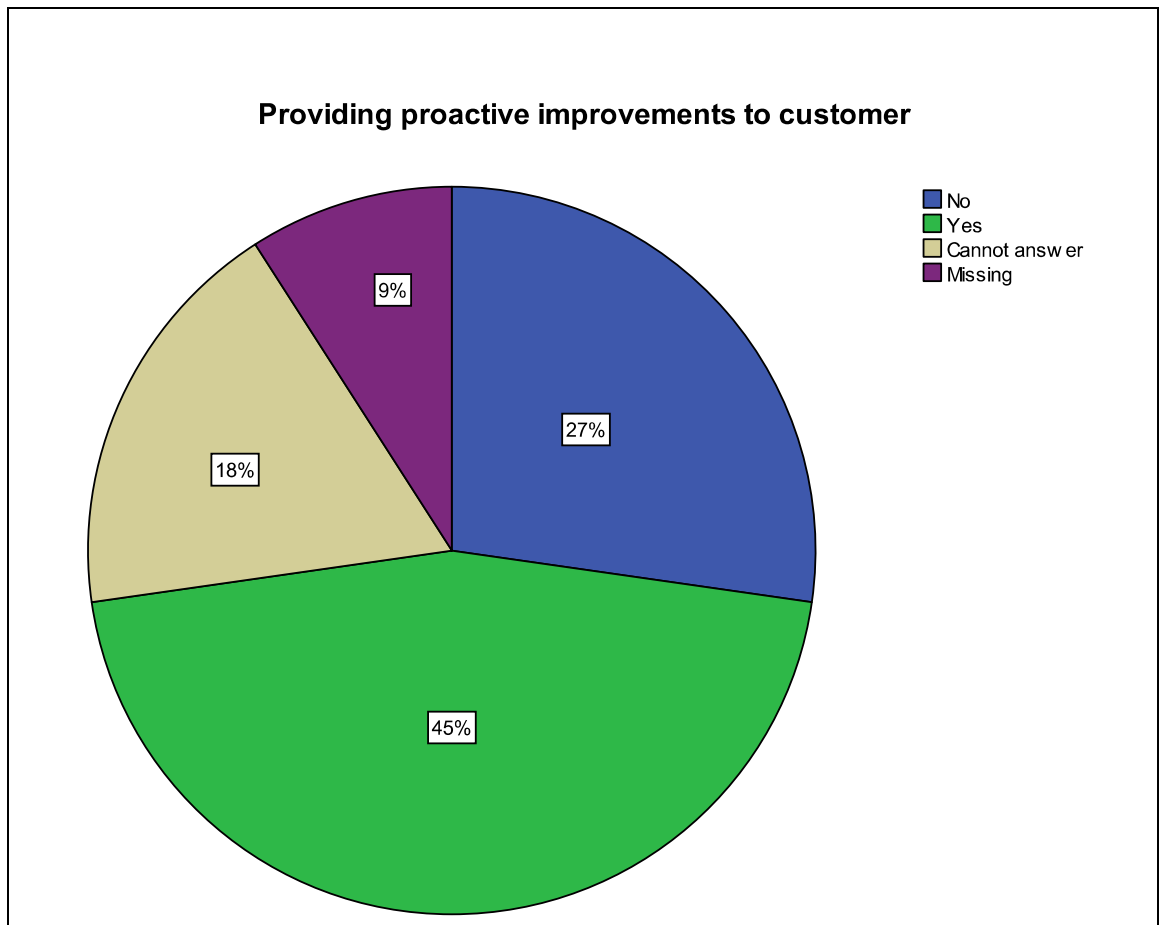


Figure 32. Ability to provide proactive improvements to the customers

As shown in Figure 32, almost half of the interviewees (45%) had gotten suggestions of improvements concerning services or systems maintained by CitiusNet Ltd. However, little over quarter of the interviewees (427) answered that they haven't had any suggestion of improvement. Minority (18%) couldn't answer the question. Some of the interviewees additionally answered that there should be more proactivity.

I1 answered that "I cannot answer this question. We rely mostly to the expertise of CitiusNet Ltd. and we have done only little of this kind of pondering and reviewing of services. We trust CitiusNet Ltd. to tell us these kinds of suggestions."

I10 answered that "It wouldn't hurt if there were more suggestions for improvements."

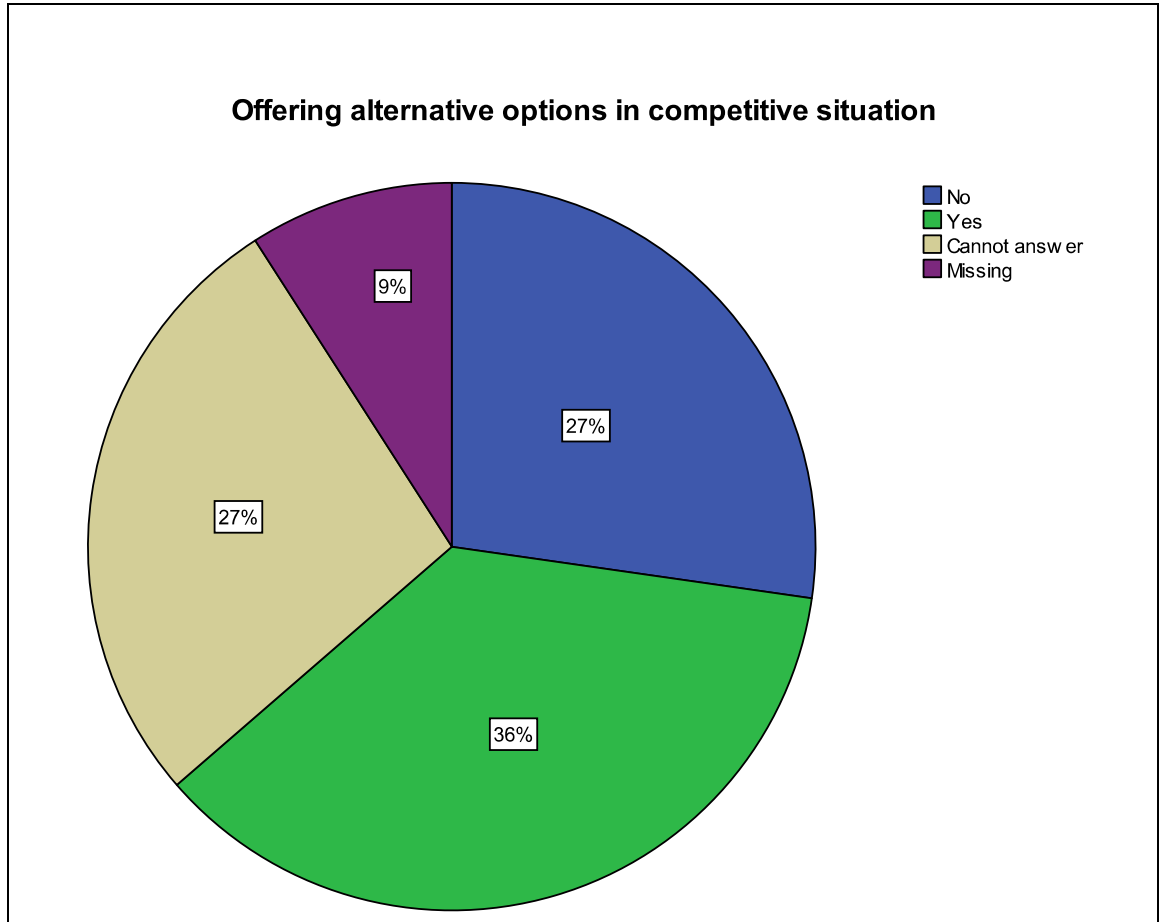


Figure 33. Ability to offer alternative options in competitive situation

As shown in Figure 33, little over third of the interviewees (36%) gets enough alternative options from CitiusNet Ltd. in competitive situations. However, little less than third of the interviewees (27%) answered that they don't get enough alternative options in competitive situations. Same amount couldn't answer the question.

I1 answered that "The alternatives are usually OK, but there are too few price options."

I3 answered that "Usually we get one or two alternatives for our request. There should be bit more alternatives, mainly in terms of price."

I4 answered that "This could be done better. CitiusNet Ltd. probably has some other values that weight more than giving many alternative options. When compared to other competitors, there's not much haggling do be done."

I6 answered that "To be honest, we don't buy much hardware from anywhere else. We have agreed that when we buy something, we buy it from CitiusNet Ltd., because the hardware is

also installed and fits to our use and systems. It might be bit expensive than buying from others, but we don't have to worry about them not working."

I10 answered that "No, we don't get enough alternatives always. But then again, it's also a problem that we don't know how to define requirements. Either we don't have enough knowledge, or we just don't know."

I11 answered that "If it's about alternatives, they are kind of scarce. Usually, the first is offered the option that is most familiar to CitiusNet Ltd. There is no real repertoire from which to choose. But CitiusNet Ltd.'s adaptability sits well in these kinds of situations, because even we don't know always what we really need."

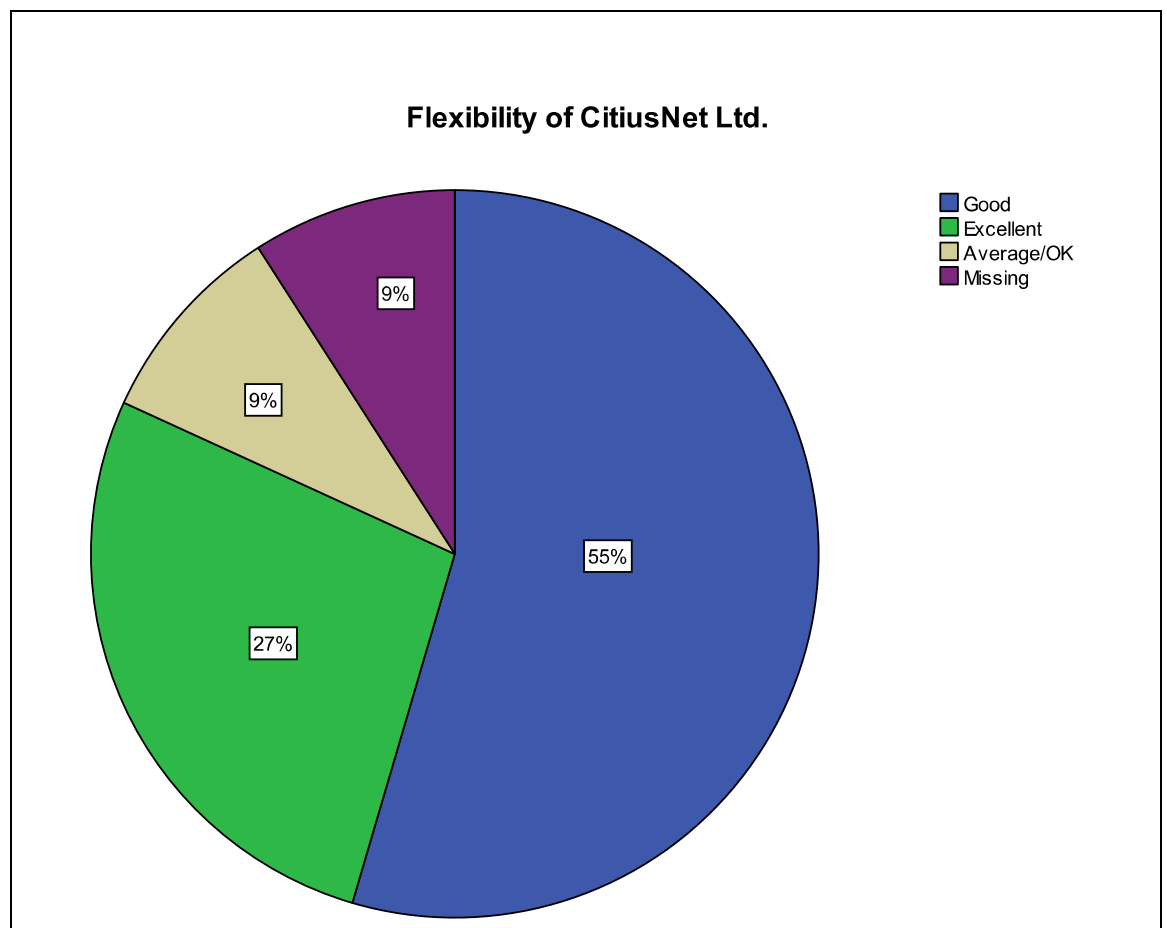


Figure 34. The flexibility of CitiusNet Ltd.

As shown in Figure 34, majority of the interviewees (82%) thought that CitiusNet Ltd. has at least good flexibility as a business partner. Some of the comments follow.

I2 answered that "If we notice at 9 PM that our server isn't working, someone from CitiusNet Ltd. has answered and helped with the problematic situation."

I8 answered that "Once or twice a year comes up a situation that endangers our business. Expectations are that those situations are solved. At those critical moments, CitiusNet Ltd. earns majority of the overall service benefit that they offer to us."

I10 answered that "Locality of CitiusNet Ltd. brings trust, commitment and flexibility to the functioning of the service. This is one reason why small businesses choose the services provided by CitiusNet."

Assessing commitment of CitiusNet Ltd. to better both companies businesses was a challenging question for most of the interviewees, but following are some comments regarding that.

I2 answered that "CitiusNet Ltd. is strongly committed to companionship. In problematic situations, we can contact them almost any time of the day."

I3 answered that "CitiusNet Ltd. is loyal business partners, but we're expecting more suggestions how to make our ICT-infrastructure answer more to our needs. We need outside reviewer to analyze how we do things. Currently our work is hectic and concerns much travelling, so we should need good tools for that kind of work."

I8 answered that "CitiusNet Ltd. is committed to us, but to make this situation continue they need to improve their business and service provided continuously."

I10 answered that "CitiusNet Ltd. is committed to customers. This shows in such a way that they keep up their own trustworthiness. Keeping their own business clean, trying to service customers well and having short response times. All these are both meant to service customers better and improve their own business."

4.9 Response time

All the interviewees were asked questions about the response time of CitiusNet Ltd. They were asked to assess CitiusNet Ltd.'s readiness to help and give information to customer. They were asked to describe willingness of CitiusNet Ltd. to work with their companies.

They were also asked whether they had given CitiusNet Ltd. any feedback, and how the feedback had been reacted. They were asked to assess easiness to contact CitiusNet Ltd. when making service requests. They were also asked to assess how fast to their questions were reacted and how well they were informed about the working of the service.

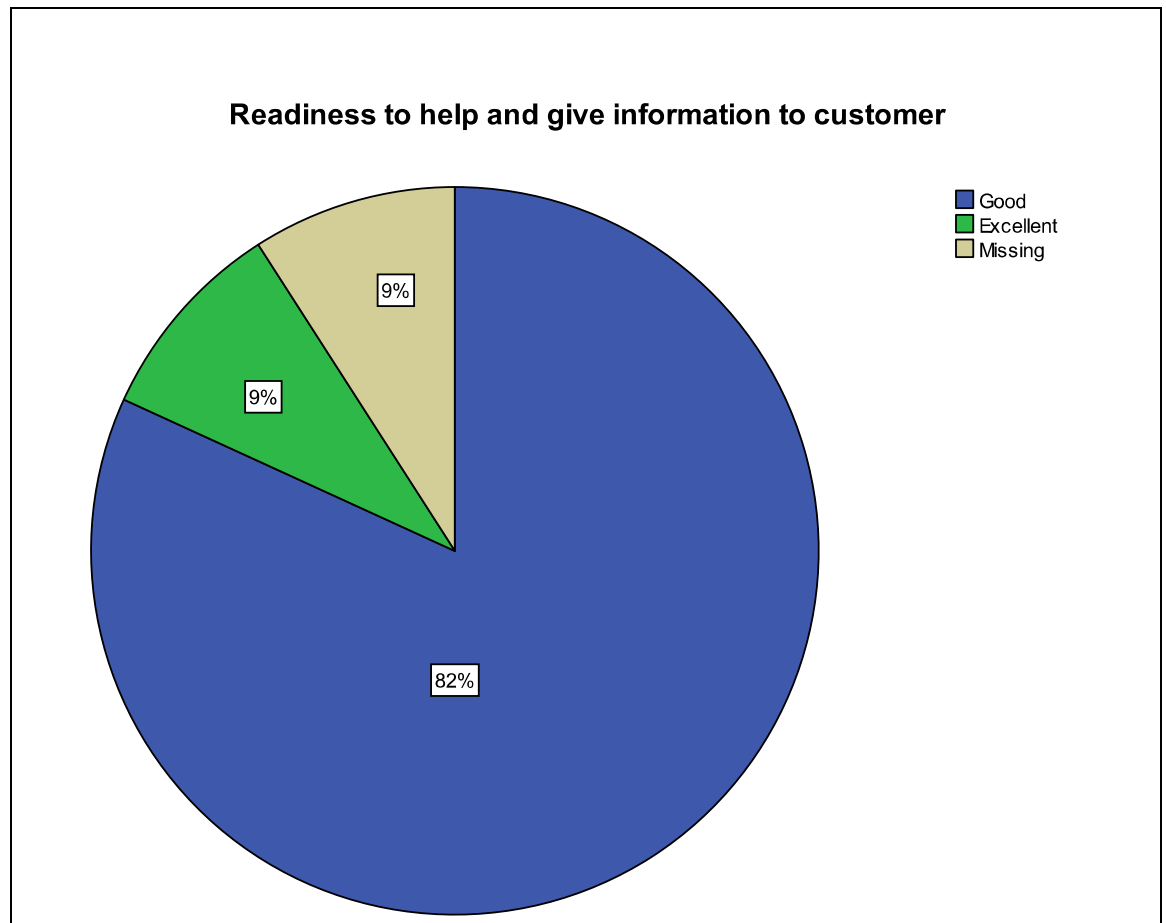


Figure 35. CitiusNet Ltd.'s readiness to help and give information to customer

As shown in Figure 35, all the interviewees who answered said that CitiusNet Ltd.'s readiness to help and give information to customer is at least at good level.

I1 answered that "If they cannot solve our problems with one call, then it usually just takes few emails."

I2 answered that "I have never come up with a situation that I'd felt that I'd asked a stupid question. The people at CitiusNet Ltd. have always given a proper answer, regardless what I have asked."

I2 answered that "We have gotten always all information that we've asked for. There's not been a feeling that something is not told to us."

I5 answered that "All the rushed service requests are handled immediately."

I7 answered that "Response time is swift. When we call about something, it's usually an emergency. Then we get help in the phone or then we get an answer when they can help us. The response time has been usually very short, and the service has worked well."

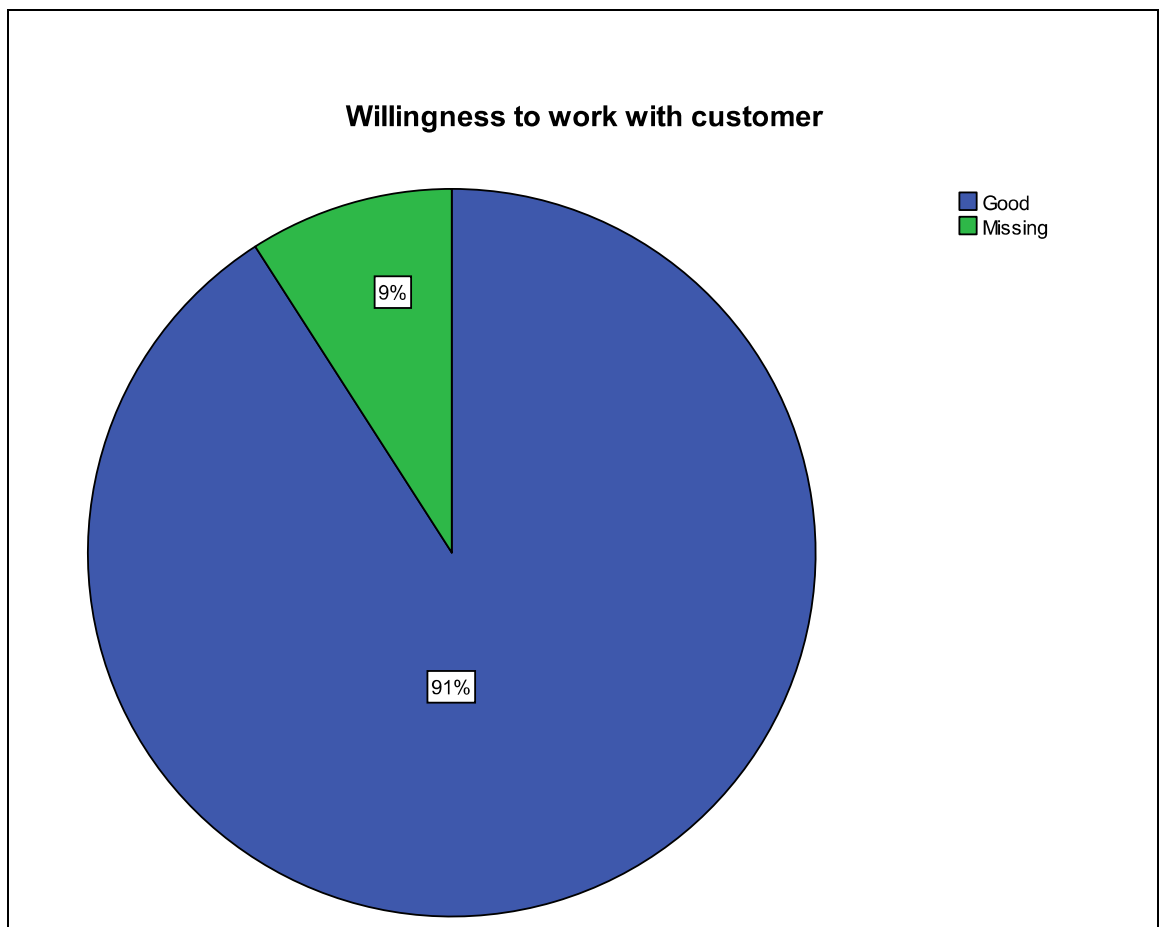


Figure 36. CitiusNet Ltd.'s willingness to work with customer

As shown in Figure 36, all the interviewees that answered said that CitiusNet Ltd.'s willingness to work with their companies is good.

I1 answered that "The willingness is clearly good. The new salesperson is continuously calling and visiting us."

I2 answered that "Willingness is proper and good. Unlike with our previous ICT service provider, who used to prioritize bigger companies before our company. Their personnel didn't show up at appointed time and we didn't know what had happened until we called his boss. Then we found out that there was 'bigger problems' somewhere else. It really got us furious."

All the interviewees were asked about whether they had given feedback to CitiusNet Ltd., and how well the feedback system had worked and how the CitiusNet Ltd. had reacted to the feedback. Not all the interviewee were able to answer this due the fact that they did not have any need to give positive or negative feedback to the CitiusNet Ltd.. However, following comments were collected.

I1 answered that "There's always need to give feedback, either positive or negative. Unfortunately giving positive feedback has been quite scarce, and well, there hasn't been need to give any negative feedback to CitiusNet Ltd."

I2 answered that "I've given feedback straight to the CEO of CitiusNet Ltd. Response to the feedback was swift, and the problematic issues were addressed. In this situation, we weren't left with any bad feelings."

I5 answered that "The feedback system and reaction to our feedback has worked well and flexible."

I7 answered that "We have has discussions few times. Last time it was about hours billed. The discussion was proper and the end result was satisfactory for both CitiusNet Ltd. and our company."

I10 answered that "Sometimes it feels that vocal feedback doesn't reach the destination, but the written feedback works well."

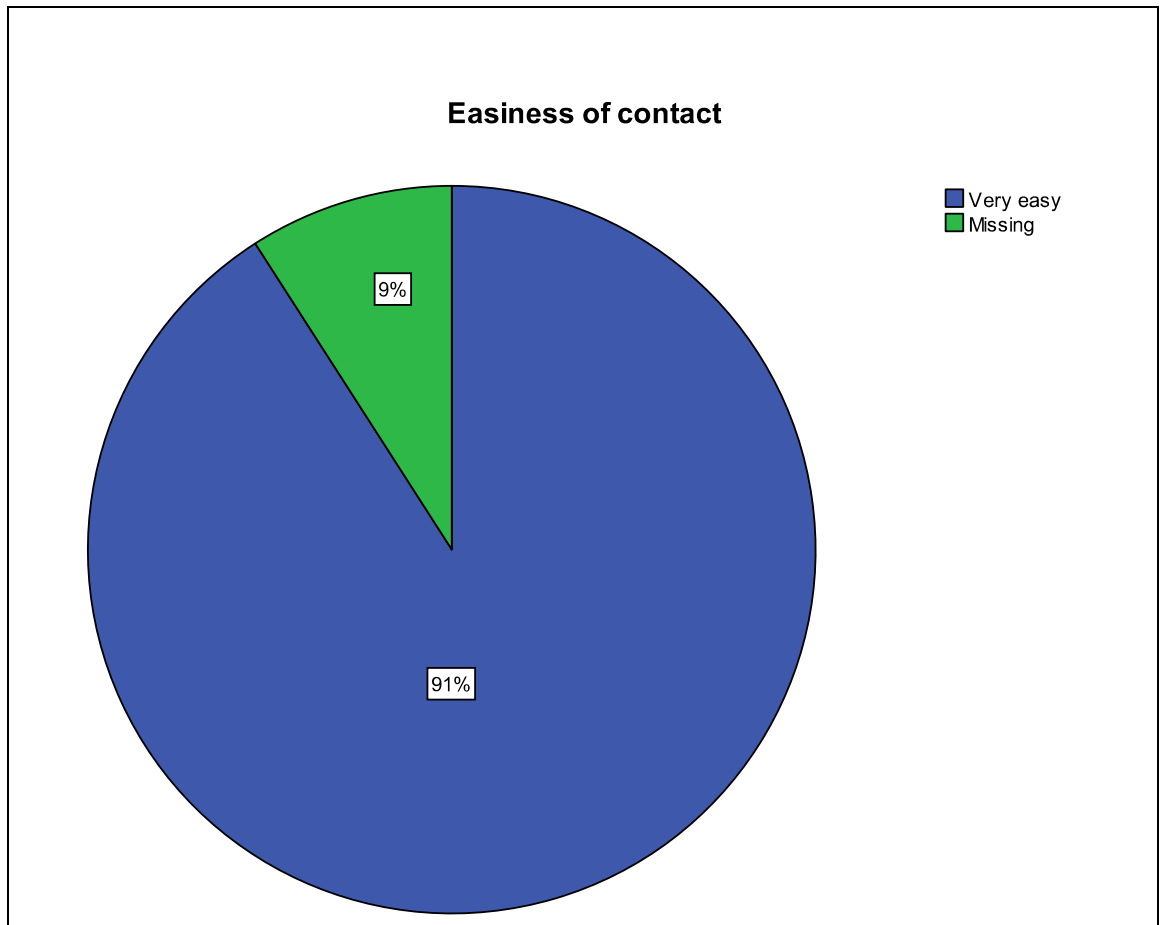


Figure 37. Easiness to contact CitiusNet Ltd.

As shown in Figure 37, all the interviewees that answered said that it is very easy to contact CitiusNet Ltd. The only additional comment was from I3 who said that "The support phone number CitiusNet Ltd. has for their clients works very well."

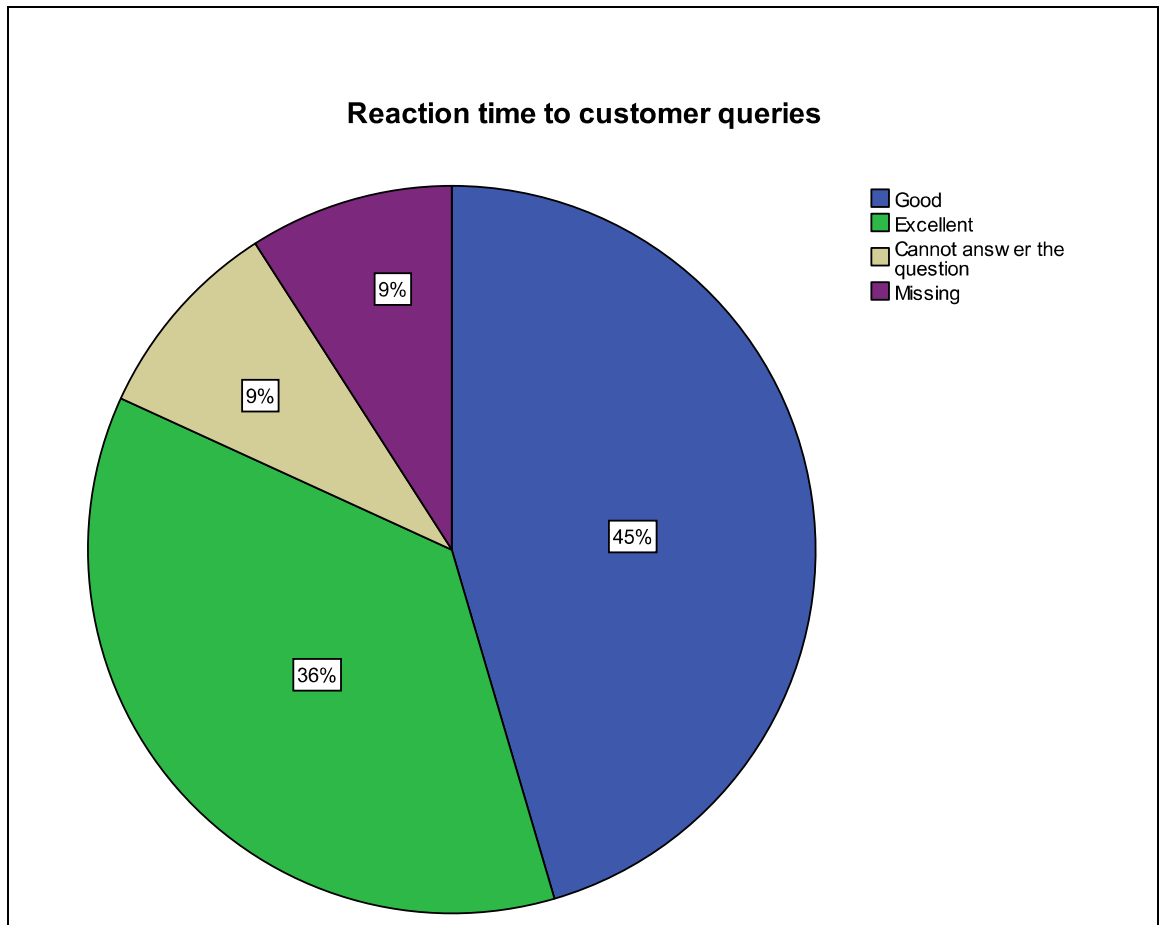


Figure 38. CitiusNet Ltd.'s reaction time to customer queries

As shown in Figure 38, majority of the interviewees (81%) thought that reaction time to customer queries was at least good level.

I2 answered that "On weekdays, I usually get an answer in minutes, at the longest within an hour."

I9 answered that "In practice, when people at CitiusNet Ltd. have the information, we get that information too."

About the question whether the interviewees were kept well enough informed by the working of the services following comments were collected.

I1 answered that "I've felt that I get enough information who the services work and what their statuses are."

I3 answered that "It's been glad to notice that we get more information from CitiusNet Ltd. these days. There hasn't come up any surprises, neither there has been any situations where we haven't known something in advance."

I7 answered that "If there has been discontinuity or updated in the services or systems provided by CitiusNet Ltd., we've known it in advance. That's good."

I10 answered that "We get informed usually, but it could be done bit better."

4.10 Value of the provided service

All the interviewees were asked to freely review the value of the service provided by CitiusNet Ltd. to their respective companies. The review aspects were reliability, warranty, imago, empathy and response time. They were also asked freely to review the suitability of the pricing of the services. They were asked whether they compare prices of different service provider. They were also asked to assess how competition in the ICT-business will affect the pricing.

I1 answered that "We haven't had any issues in the service that should be addressed. What we have seen and experienced during these year is that the reliability of the services provided by CitiusNet Ltd. is good."

I3 answered that "From my point of view the co-operation between CitiusNet Ltd. and our company has worked well. Of course there are always problems in the ICT, but for the way the problems have been handled I've been very satisfied. Some people who haven't been involved in these things don't understand that solving problems take some time."

I5 answered that "Services provided by CitiusNet Ltd. are good. We wouldn't be their customers otherwise."

I10 answered that "Mainly I think that CitiusNet Ltd. is good, suitable service provider for us."

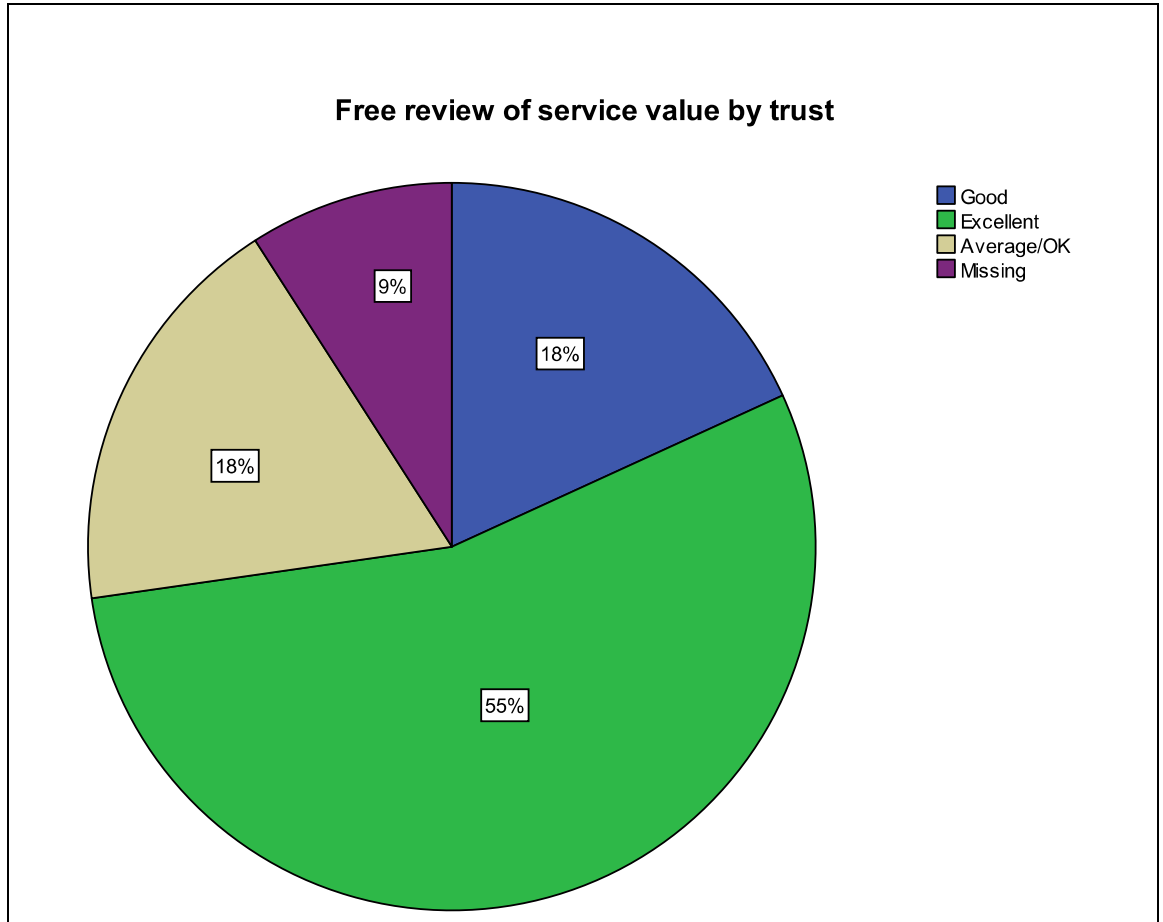


Figure 39. Free review of service value by reliability

As shown in the Figure 39, the service value by reliability of the service was felt by majority of interviewees (735) to be at least the good level.

I8 answered that "The reliability and warranty of the services are critical factors for our business and I've felt that both are okay in services provided by CitiusNet Ltd."

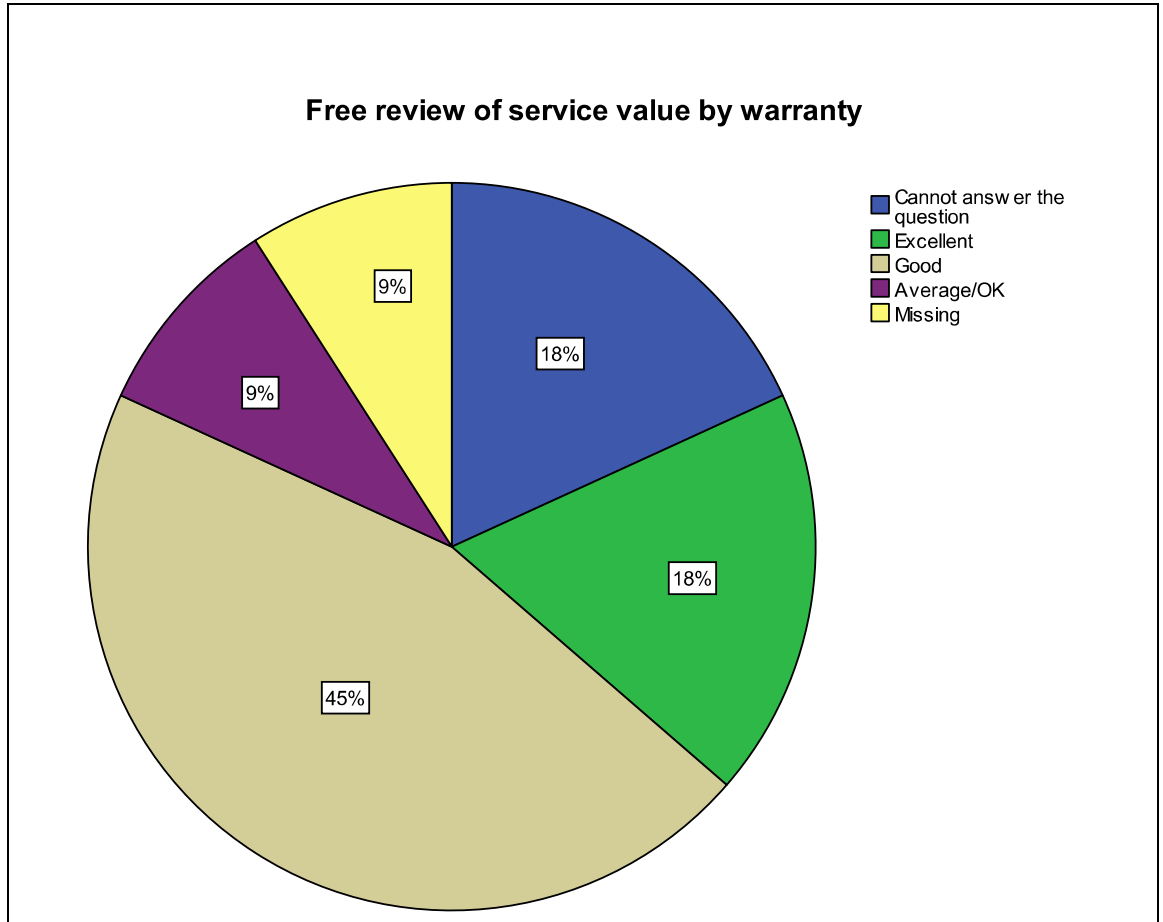


Figure 40. Free review of service value by warranty

As shown in the Figure 40, the service value by warranty of service was felt by majority of interviewees (63%) to be at least the good level.

It answered that "Every used of the service decided whether the service has good warranty or not."

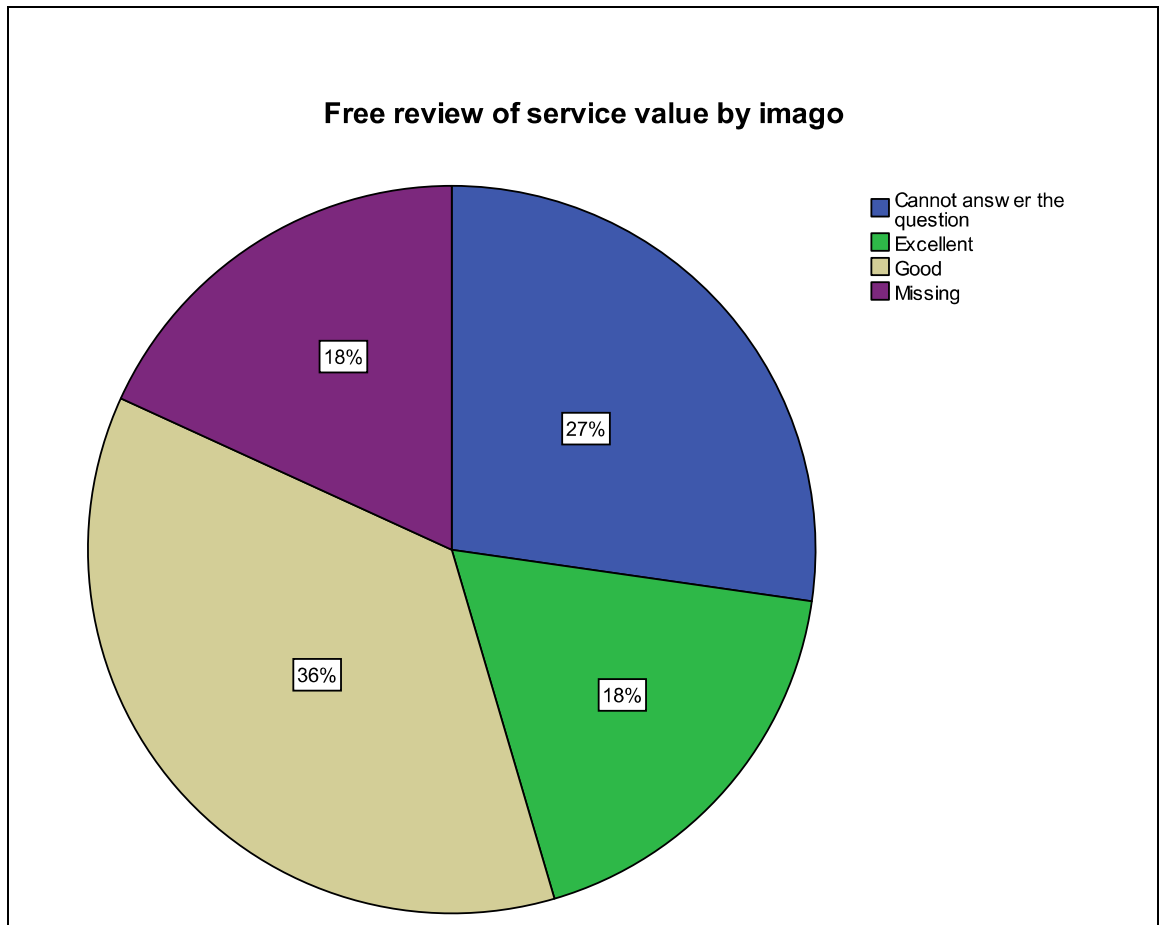


Figure 41. Free review of service value by imago

As shown in the Figure 41, the service value by imago of service was felt by majority of interviewees (54%) to be at least the good level.

I1 answered that "Imago has no much value for us. From our point of view, CitiusNet Ltd. is good sized and appropriate type of service provider for us."

I8 answered that "Imago is a two-edged sword. For example, if for some reason is implied in the press that some of our business partners have had problems with information security, it's also bad for us. But also, if they have major successes, they also give value for us. In the case of CitiusNet Ltd., it's given us and them lots of value that they have been able to present things convincingly and reliably for out other partners. Those kind of short moments, they have lots of value. It's not enough that things are done well, but to be able to present them smartly gives them even more value."

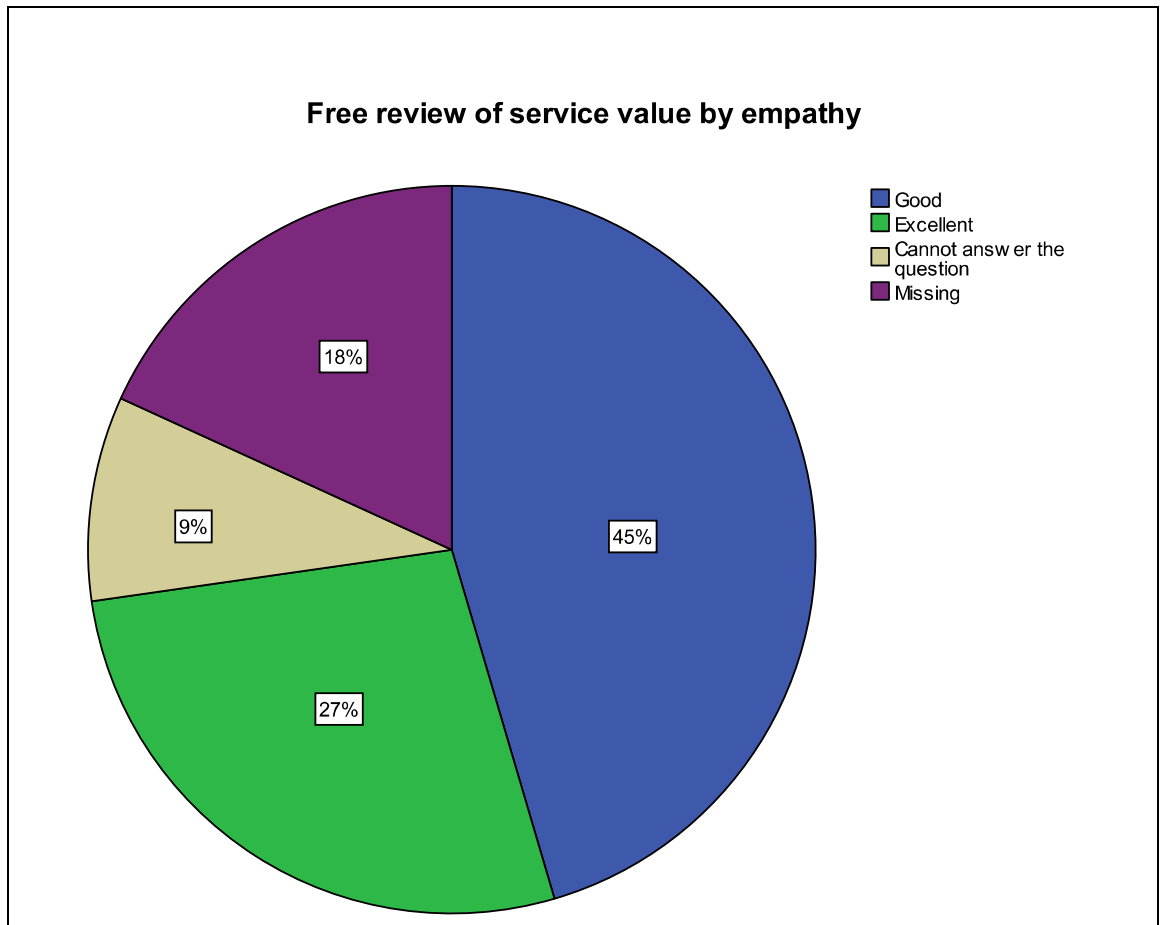


Figure 42. Free review of service value by empathy

As shown in the Figure 42, the service value by empathy of service was felt by majority of interviewees (72%) to be at least the good level. No additional comments were given.

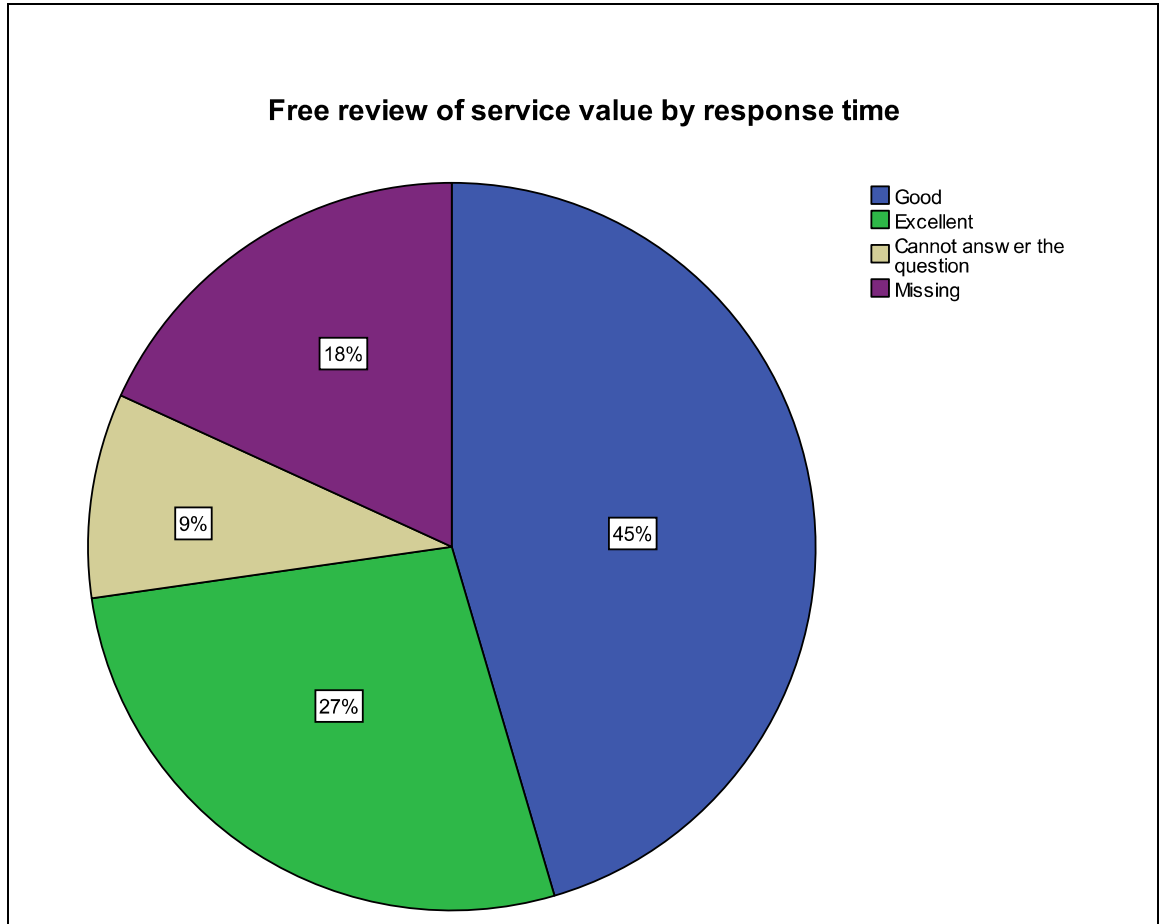


Figure 43. Free review of service value by response time

As shown in the Figure 43, the service value by response time of service was felt by majority of interviewees (72%) to be at least the good level.

I1 answered that "Response time is good enough for us."

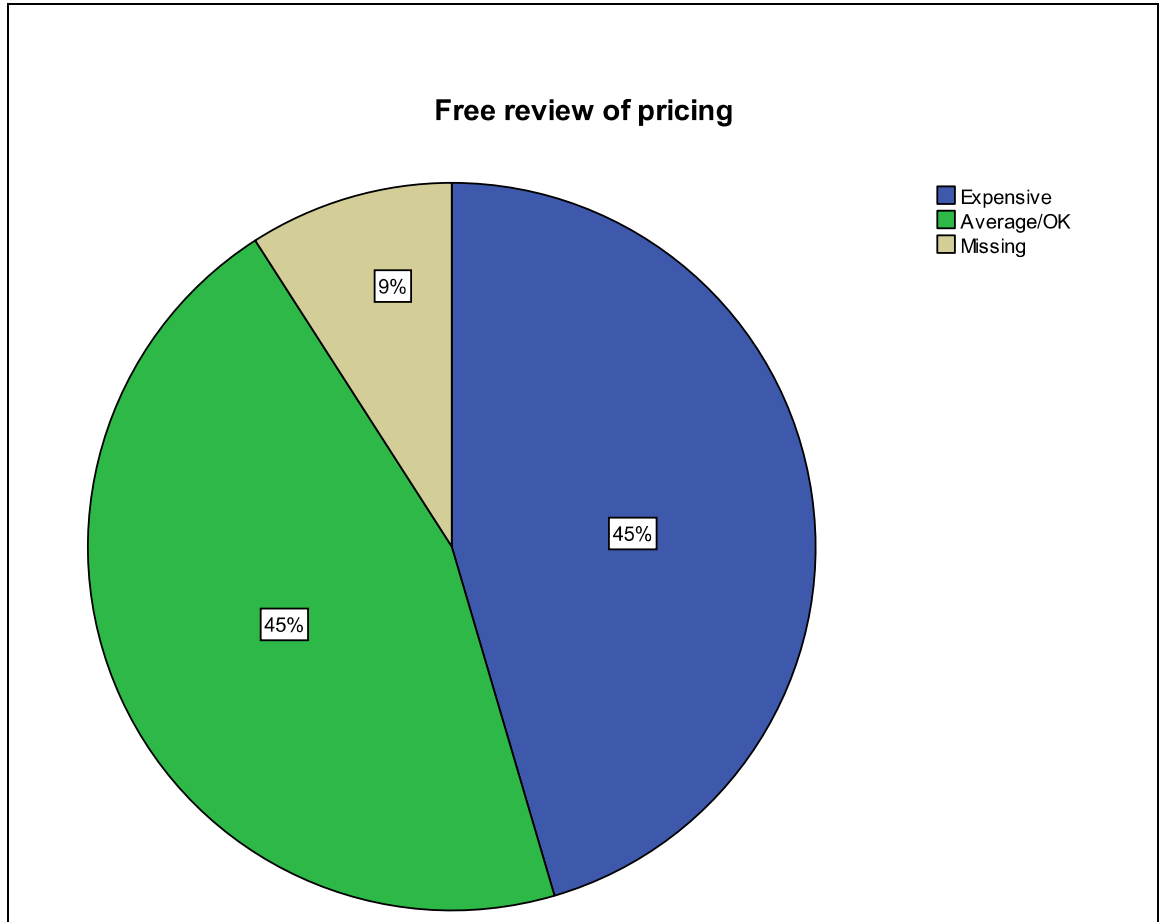


Figure 44. Free review of pricing by customers.

As shown in the Figure 44, the pricing was felt expensive by half of the interviewees and half thought that it was at average or OK level.

I1 answered that "The service is expensive. With that money we could basically hire our own support person. It's on the line. Do we see it profitable or not."

I2 answered that "The reports coming with the bill are enough to justify the billed hours so well that I haven't had to ask about the cost."

I3 answered that "The basic services are price competitively. Of course there have been some oversights. We thought that CitiusNet Ltd. would have notified about costs before starting some requests that turned out to be expensive ones. We have gotten rid of them with our internal guidelines."

I5 answered that "We think that the service provided is bit expensive for the infrastructure that we have. But there are things that we feel important, like working 24-hour standby. It's absolute need for us."

I6 answered that "It's not too expensive, but almost there."

I7 answered that "I think the pricing is alright, at least those functions that CitiusNet Ltd. offers to us. There's this basic price, and certain things work well and are maintained by it. And as long as we get accurate report of what is done and how much time has been used, we are quite happy."

I9 answered that "The price is about the same as anyone else in this region. So it's OK."

I11 answered that "The prices are not set in stone and are customized case by case if needed. So that's OK."

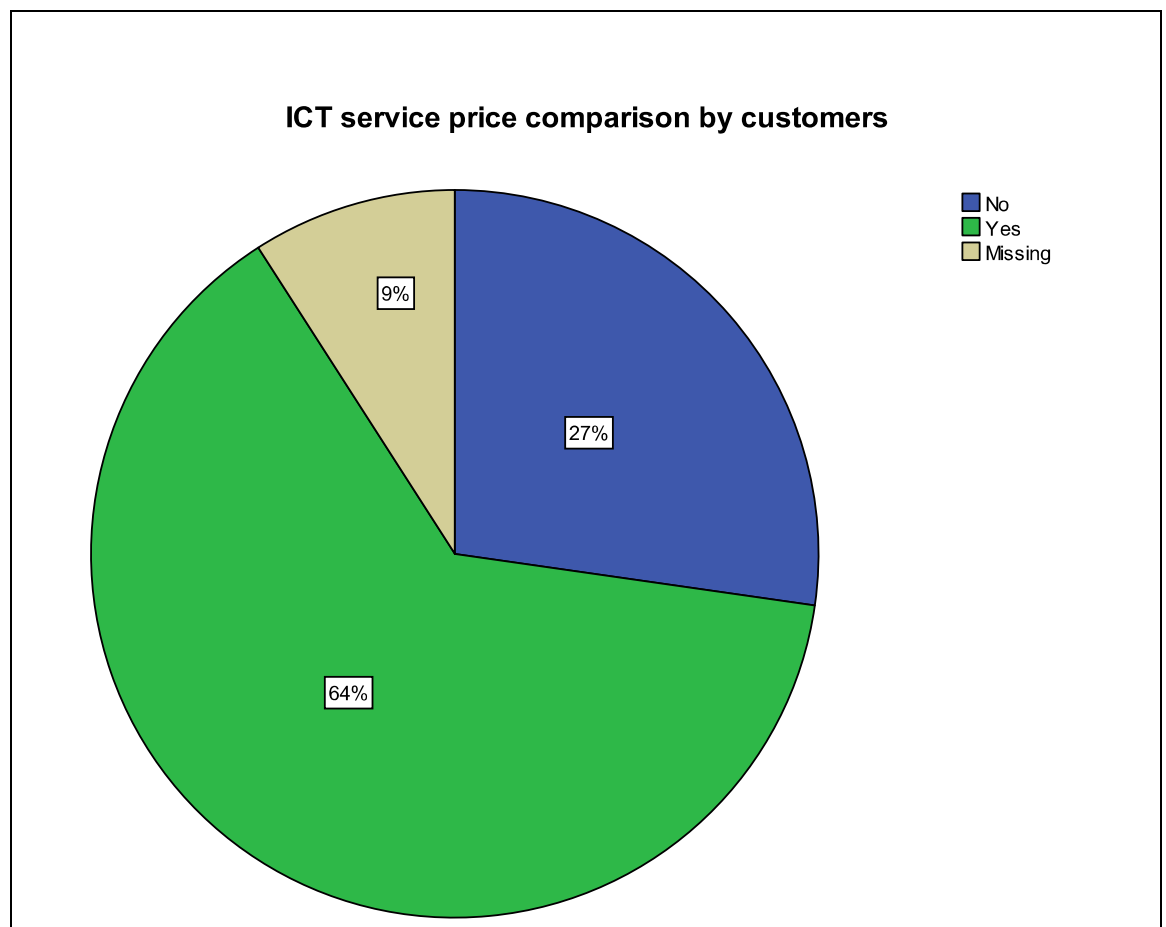


Figure 45. ICT service price comparison by customers

As shown in the Figure 45, majority of the interviewees (64%) do compare prices between different service providers.

I1 answered that "Well, we haven't compare service prices as a whole package. But some product prices and small part of the service prices have been compared with other service providers."

I2 answered that "We haven't had time to compare prices between service providers. On the other hand, this level of co-operation is based upon the fact that we have been working together with CitiusNet Ltd. for long time. Now if we were to change service provider, it would take too long to teach them the manners of the house. It would work at some level of course, but could the co-operation be at the same level. I do not think so."

I3 answered that "Yes, we have compared prices of the service providers. CitiusNet Ltd.'s prices are above the average, but other values in their service, have made us choose them."

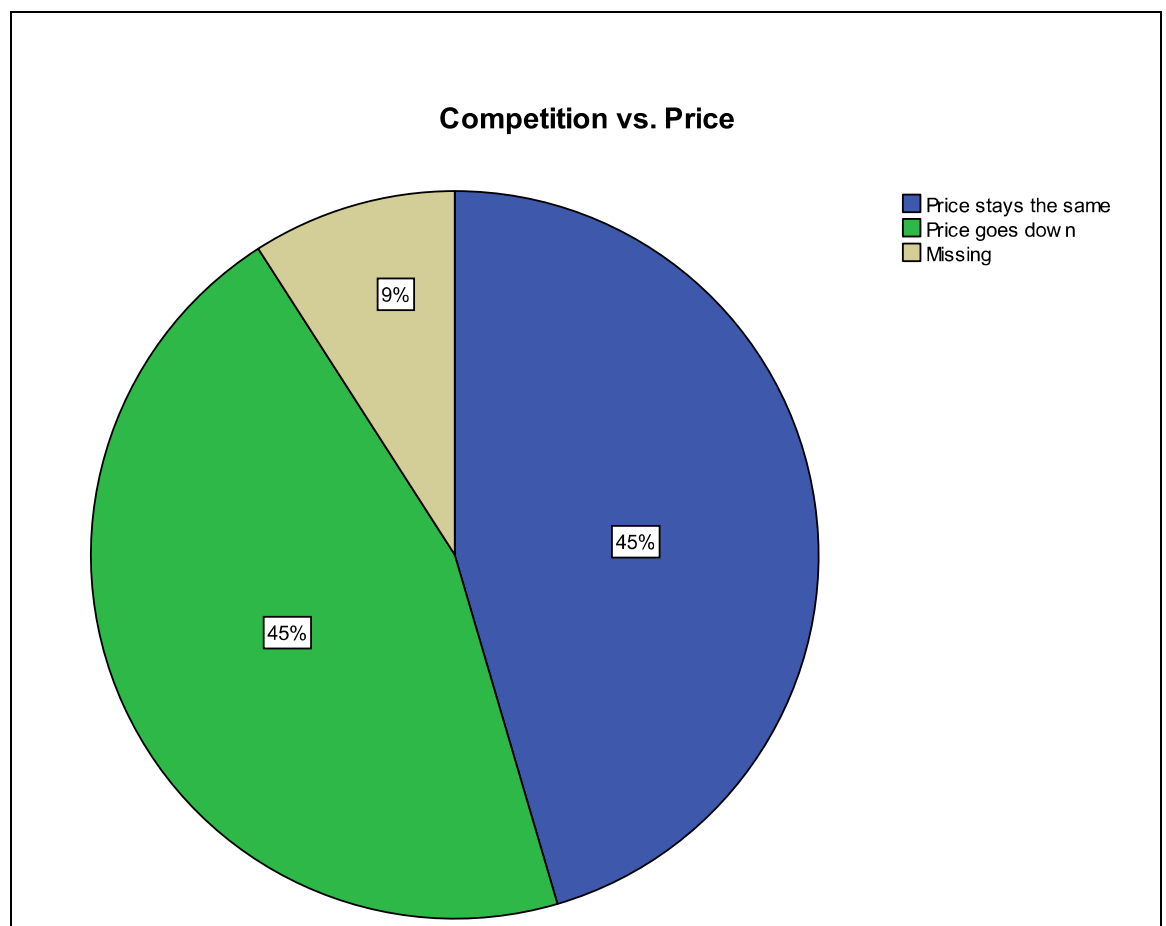


Figure 46. The effects of competition to price

As shown in the Figure 46, the effects of the competition are thought to drive price down by half of the interviewees and half thought that the price would stay the same regardless of the competition.

I1 answered that "Of course the competition will have some effect, but mainly so that services are needed to be developed continuously and the quality must be maintained at good level. The prices don't necessary go down, but it means that the quality must stay at good level."

I2 answered that "Hopefully competition will lower the prices."

I7 answered that "At some time frame the competition will drive price down some."

I8 answered that "It really will be racing, I think. With current service package and know-how it's impossible to compete after three years or so. Companies need to continuously follow up the development of their business. We have paying capability and want to buy those services that give us more commercial value. CitiusNet Ltd. should concentrate to the quality of the services and productization of the services so they don't need to compete at all."

I9 answered that "It only really matters what value we can gain with our money. It's not about the competition."

I11 answered that "There will not be any major price wars. The distinctiveness will be gained by other means, like know-how or imago of just being better than other companies."

4.11 Time, effort and energy used for service

All the interviewees were asked questions about time, effort and energy used for service provided by CitiusNet Ltd. and ICT in general. They were asked how often they meet with representatives of CitiusNet Ltd. and should this be improved. They were asked to assess how big is the workload of negotiating service agreements with CitiusNet Ltd. They were also asked how much of their own work time the interviewees use to handle ICT of their own company, and would they want to lessen the work load. They were also asked if they've

had any conflicts with CitiusNet Ltd. about business and have they had conflicts with CitiusNet Ltd. about how both companies could reach their targets.

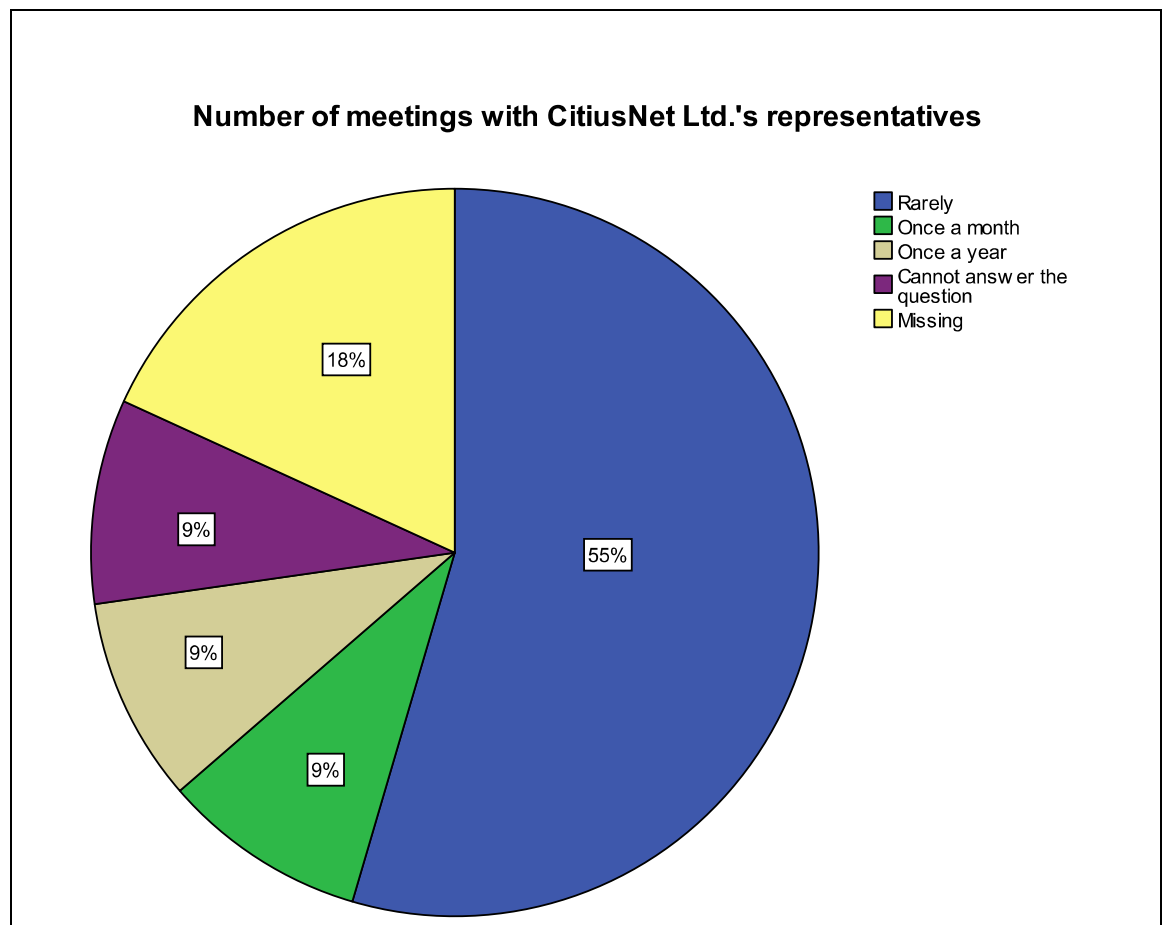


Figure 47. The number of meetings with CitiusNet Ltd.'s representatives

As shown in Figure 47, majority of the interviewees (55%) thought that they meet rarely with non-support providing representatives of CitiusNet Ltd.

I1 answered that "We see the support personnel daily. But if you mean by representatives the CEO or salesman of CitiusNet Ltd., then lately we have seen them rarely. I guess that we'll be seeing them more this year."

I7 answered that "We have met usually about once a year."

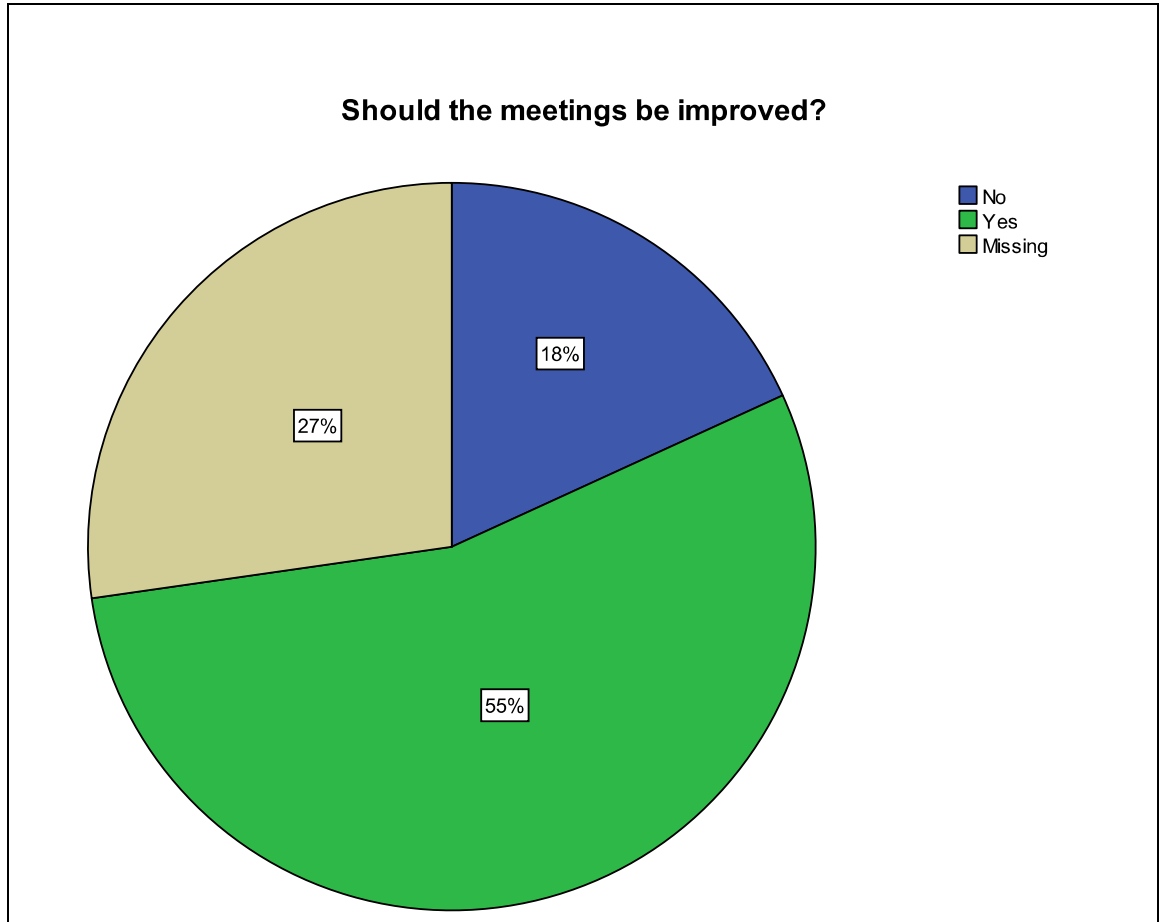


Figure 48. Should the meetings be improved somehow?

As shown in Figure 48, majority of the interviewees (55%) thought that the meetings should be improved somehow.

I1 answered that "No. We sat with the CEO of CitiusNet Ltd. sometime ago regularly and went through what has been done. I don't see any need for improving, because the meetings have been able to arrange when there has been some need for them."

I3 answered that "I think about twice a year we should meet with representatives of CitiusNet Ltd. and assess if our company's needs have changed or is the level of service enough. Sort of check up meeting."

I5 answered that "We should meet at least once a year and check how we are doing."

I7 answered that "If there were meetings twice or thrice a year, meetings would give additional commercial value for the service."

I9 answered that "As an improvement there could be some follow up meetings."

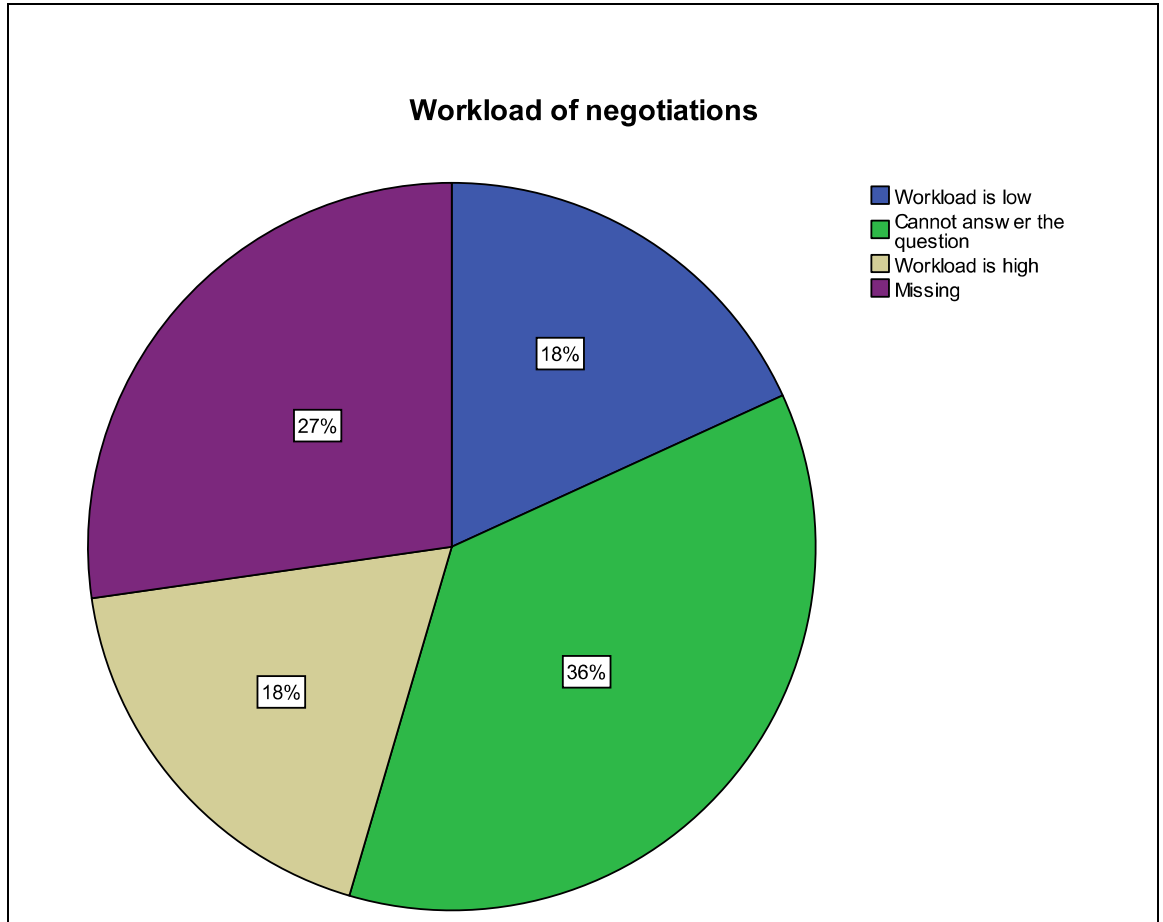


Figure 49. The workload of negotiations done with CitiusNet Ltd.

As shown in Figure 49, half of the interviewees that could answer thought that workload of the negotiations is high and half thought that it is low.

I1 answered that "The workload of the negotiations has been low."

I2 answered that "As a business partner CitiusNet Ltd. has been good and easy to negotiate with. They have made good base for contracts, and we have rarely needed to make changes to them. "

I7 answered that "The workload of the negotiations has been high. It's because we're not in the ICT business professionals, but we've had to learn about the things we've had to negotiate."

I10 answered that "Yes. We need to use time to negotiate, because we don't have enough competence, time or understanding to highlight right things in the contracts."

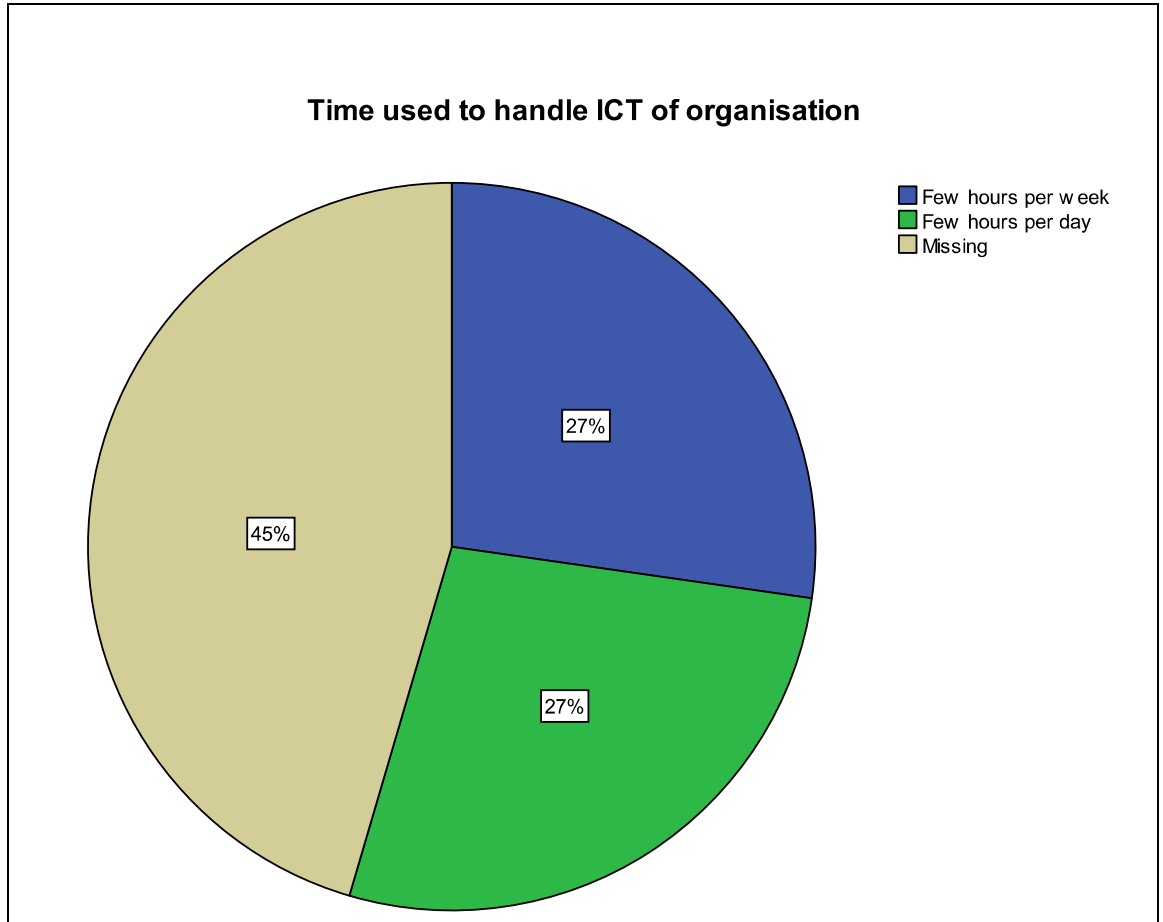


Figure 50. Time used by interviewee to handle the ICT of their company

As shown in Figure 50, half of the interviewees answered that they use few hours per week to handle ICT of their company and half answered that they use few hours per day.

I1 answered that "It's a good question. It varies quite a lot actually, but I think the average is few hours per week."

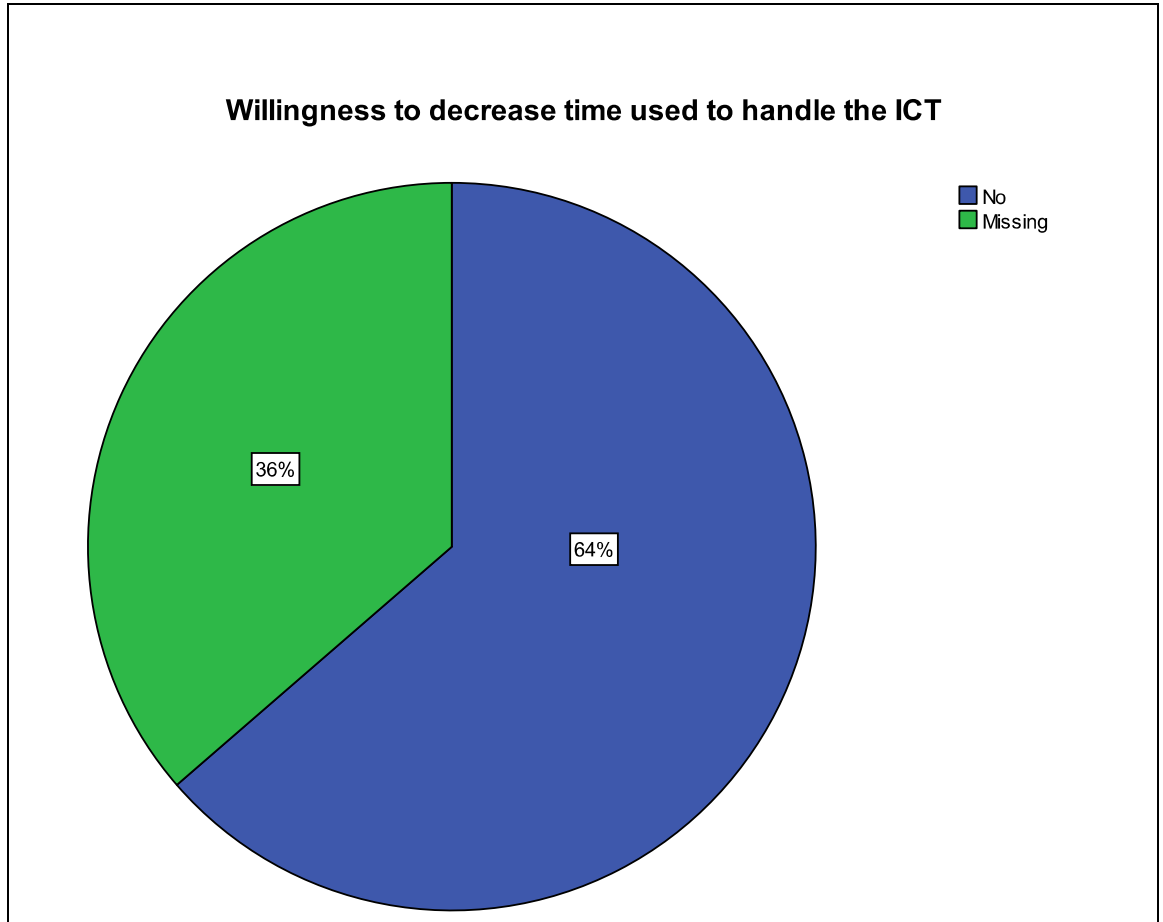


Figure 51. Willingness to decrease time used to handle the ICT

As shown in Figure 51, all the interviewees that answered didn't want to decrease the time they use to handle their own ICT.

I1 answered that "I don't want to reduce the time I use to handle our ICT. Otherwise I'll lose all the touch for it."

I2 answered that "No, I don't want to decrease the time. Or should I say that I can't decrease it, because I mainly work with our ERP systems, and addressing and solving issues with it."

I7 answered that "No, what I currently do is the minimum that must be used to handle ICT of our company. I can't decrease it."

I10 answered that "Cannot decrease my current ICT workload. I think the amount is suitable at the moment."

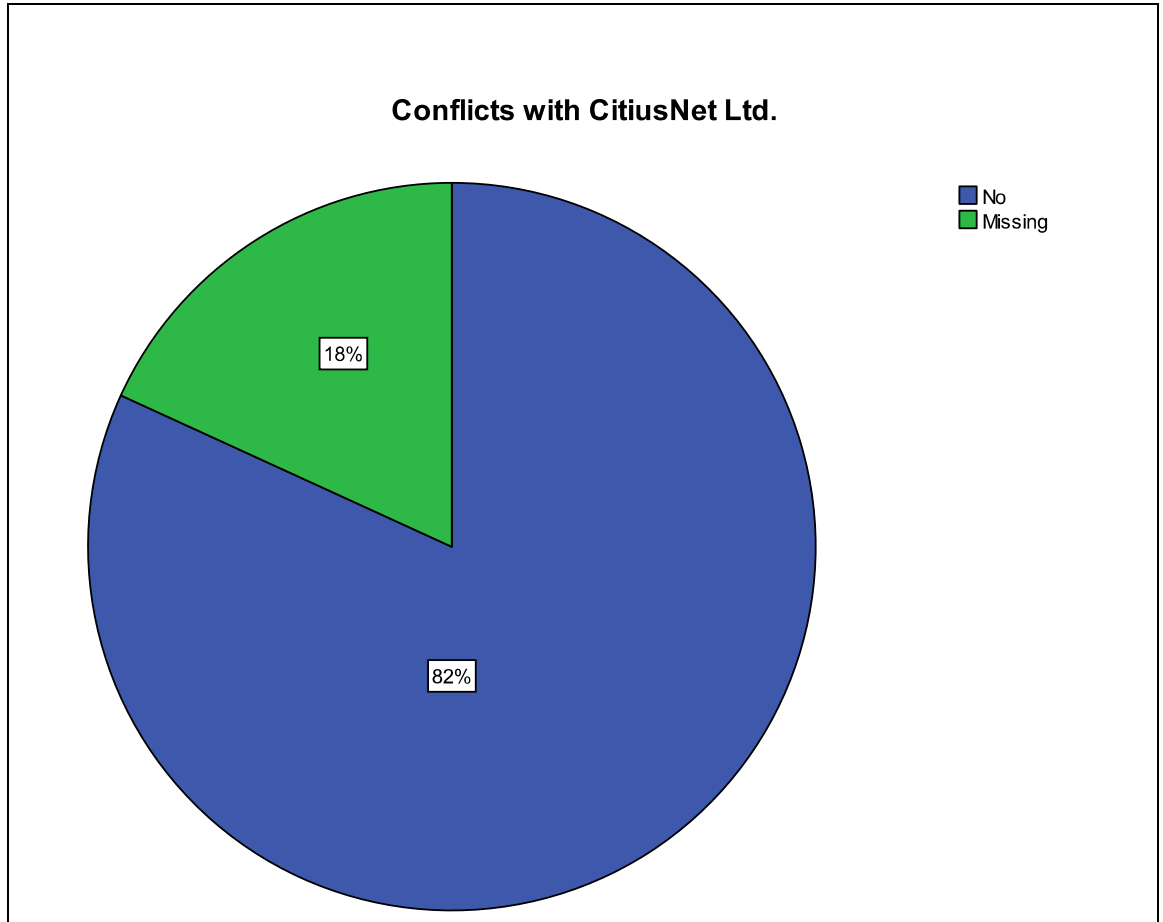


Figure 52. Conflict with CitiusNet Ltd.

As shown in Figure 52, all the interviewees that answered their company had not have any business conflicts with CitiusNet Ltd.

I5 answered that "There has been one or two reclamations, but they were handled well. I don't consider them as a business conflicts."

I7 answered that "At some point we had discussions, whether the same service personnel visits us always, or is it the one that is free at that point. Currently, the same person usually helps us. It's not really a business conflict."

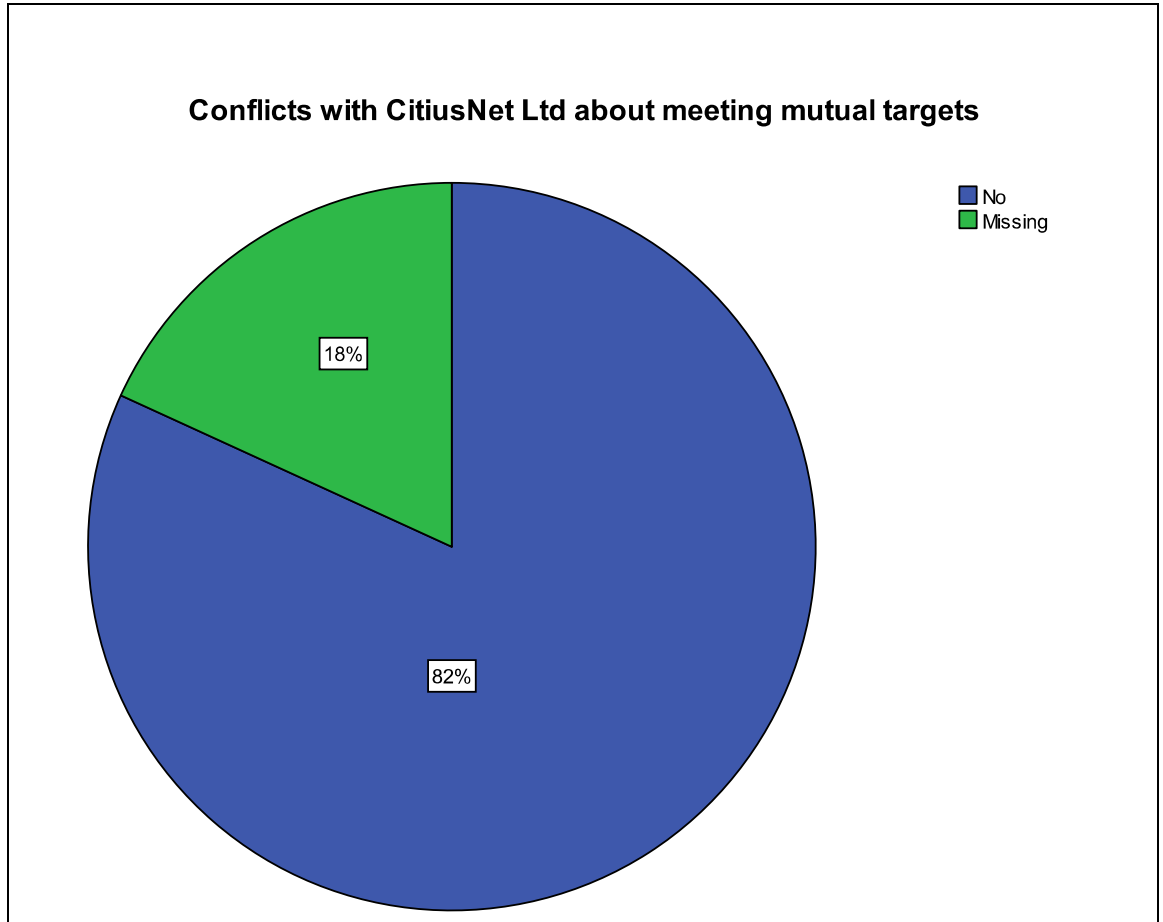


Figure 53. Conflicts with CitiusNet Ltd. about meeting mutual targets

As shown in Figure 53, all the interviewees that answered their company had not have any business conflicts with CitiusNet Ltd. about how both companies could reach their targets. No additional comments were given.

4.12 General questions

All the interviewees were asked general questions about the services provided by CitiusNet Ltd. They were asked how the services could be improved and whether they would be willing to participate to the development of services. They were asked whether they had ideas about the development of services or know-how of CitiusNet Ltd. They were also asked whether they wanted to give free review of the services

I1 answered for the improving of the services that "For an improvement there should be on contact person, that's never absent." About the developing I1 answered "My time resources

are limited, so I can't participate to any kind of development of the services. From a professional point of view it would be interesting, but I can't take any kind of active role in it." About the ideas of developing services or know-how I1 answered that "This model that CitiusNet Ltd. uses to run our services. From our point of view, it is very good and it works very well. Its challenge of CitiusNet Ltd.'s marketing to make other companies understand it too." About the free review I1 answered that "The positive side note must have been heard during whole interview, but we are happy with this co-operation and we hope that it continues the same."

I2 answered about the improving the services that "When CitiusNet Ltd. is at that level that it is, how can they improve the services. That's a challenging question for them."

I3 answered about the improving of the services that "Clarity of reporting. CitiusNet Ltd. should make it more understandable and clear. It should contain what has been done and how much. We're interested in following up used time. Then proactive marketing and offering of new solutions, so we could get knowledge of new solutions that serve us better." About participating to the development, I3 said that "Of course if CitiusNet Ltd. has new interesting services in development we would be willing to participate in them." About the ideas of developing services or know-how I3 answered that "I guess the mobile email is one growing part of ICT industry." About the free review I3 answered that "We're happy. All we want is more proactive planning, like using virtualization in our company for good scalability. There's also need for new hardware and software."

I5 answered about the free review "Services provided by CitiusNet Ltd. have worked well. We can contact them easily, tasks are handled well. I think our co-operation has also worked well."

I6 answered about the free review "As a rule jobs get done, and CitiusNet Ltd. is also at excellent spot."

I7 answered about the participating in the development that "If we can produce additional commercial value for us by participating to the development, then it would be good." About the free review I7 answered "CitiusNet Ltd. just should continue as it usually has done."

I8 answered about improving of the services that "My wish is that all problems could be categorized into critical and non-critical problems. Critical problems would be solved as

soon as possible. Then there should be clear choices at what things the co-operation is done and at what thing the help is bought from elsewhere." About the free review I8 answered that "I've noticed that CitiusNet Ltd. consciously is doing quality management. No one probably knows where it will lead, but I see it as good sign that technical personnel are developing themselves into quality-oriented thinking. I found it very good that CitiusNet Ltd. has this kind of action."

I9 answered about the ideas of developing services or know-how that "It would be good that know-how would be spread among more personnel, instead of being dependant of one person." About the free review I9 answered that "CitiusNet Ltd. handles really well our problems and our customer relationship."

I10 answered about improving of the services that "Perhaps the reporting should be bit clearer. There should be differentiated which jobs are included in current agreements and which jobs are additionally ordered jobs. About ideas of developing services or know-how I10 answered that "There should probably be bit more of mobile and wireless network know-how. Also there should be modularized price list how much basic features of computers costs. How much is the buying price, different options and delivery options etc. There should be some real meters in reports about response times."

5 DISCUSSION

Service value is not just the costs that service provider needs to provision the service, but also the value-adding components based on the customer's perception of value and expected marginal utility and warranty gained from using the service. Perhaps the best comment regarding this came from the interviewee I7 who answered about comparing pricing of the service to the benefits gained that "As a service buyer, the service feels expensive, but we always know what we pay for, so the benefit is indisputable."

As shown in figure 5, the customer realizes the true value of the service by getting desired outcome that he can't gain by his own assets. However, it is the service providers' problem to make customers realize the benefits of the value-adding components and the marginal utility and warranty gained from using the service.

This is basically done by identifying value drivers and customer perceived value of the service. Value drivers are identified by each value activity, and they can be further categorized. Value activities can be represented either by generally by IT value chain or specific models like ITIL V3. In this thesis, I've opted to use customer value driver categories that were introduced in Chapter 2.6. Because they contain the ITIL V3 modelling (Utility and Warranty in Performance value and Supplier value), pricing (financial costs and gains in Economic value), aspects of service quality (SERVQUAL in all the subcategories). In addition buyers' motivation and the buying situation are also important value drivers.

ITIL V3 model (Chapter 2.7) for the value creation of service cannot be used to value the service customer-oriented because the meters are rather abstracts for customers. That's why the service quality (Chapter 2.8) is introduced and fitted into ITIL V3 producing service quality based value model for ITIL (Chapter 2.9).

To effectively use this model in pricing, it is needed to understand the basic pricing models (Chapter 2.10). CitiusNet Ltd. is currently using mainly cost-based pricing (Chapter 2.10.1), and from the customers' view it can be felt to be expensive. This is because customers don't have clear insight what they are paying for. They don't understand the value of the service.

One objective of this thesis was to research those values and research whether it was possible and profitable to switch to value-based pricing of services (Chapter 2.10.2). Actual implementation is described in Chapter 2.11.

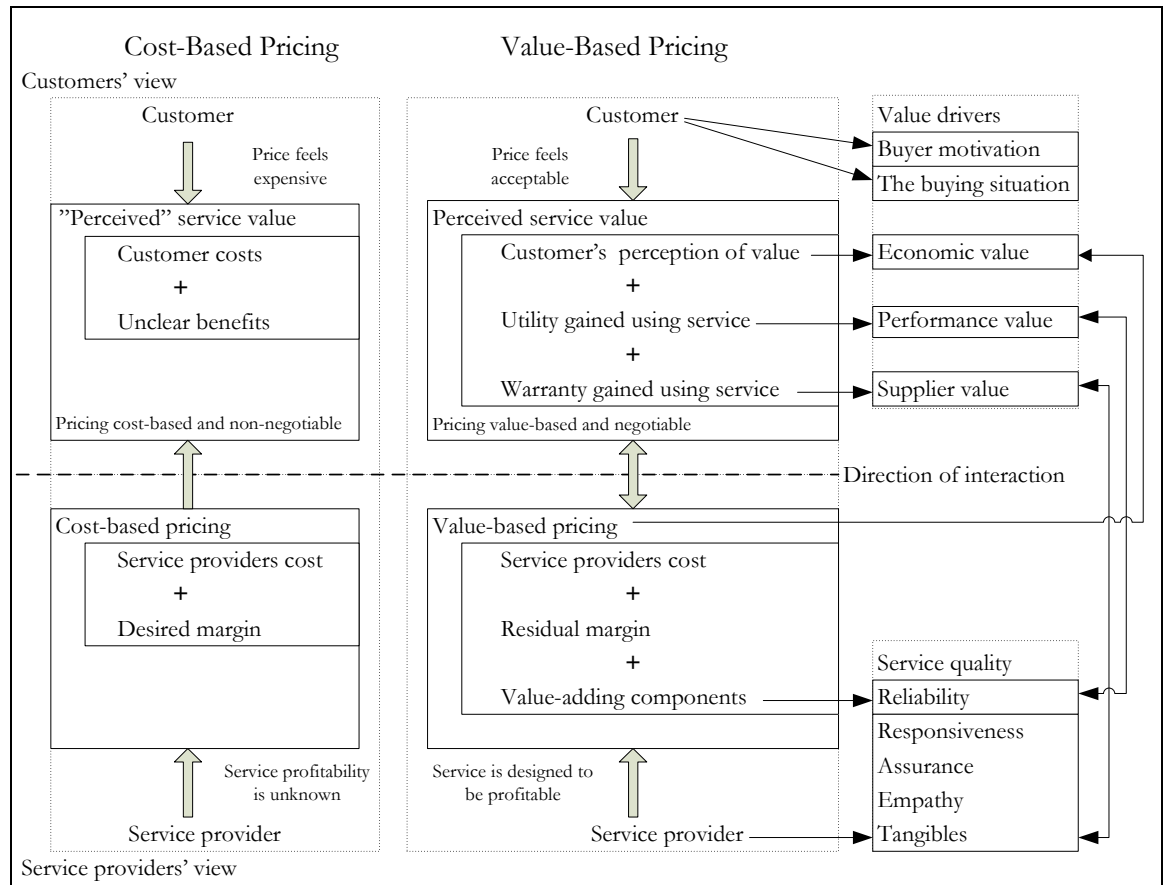


Figure 54. Differences of cost-based and value-based pricing and relations of value driver categories and service quality.

In figure 54, I have depicted the differences of cost-based and value-based pricing and the relations between value driver categories and service quality that this thesis theory has been all about.

In the cost-based pricing, the service provider set price based upon the costs and desired margin. From the service providers' view, it is hard to know the profitability of the service at its design phase. The profitability is revealed if the customer buys the service. From the customers' view, they "perceive" the service value as costs for them and some unclear, undefined benefits that they got from it. When they pay for something and they don't understand its value, the price feels expensive. The problem with the cost-based pricing is also that, in a sense, it is non-negotiable. The service provider's costs and desired margin set the limit for the lowest price. It is not profitable to sell service at lower price than the costs

of producing the service are. When the customers can't have any say for setting the price, the service will feel expensive.

In the value-based pricing, the price of the service is negotiated with the customer. Customer is made to perceive the value of the service by using value driver categories. The negotiated price is then used to assess whether the designed service can be provided profitable. Service quality is used to show, and to make the customer realize, the true value of the service. From the service providers' view, they will know the profitability of the service at its design phase from the residual margin. From the customers' view, they perceive the true service value as well as utility and warranty gained from using the service. When they pay for something and they do understand its value, the price feels acceptable. As was mentioned earlier, the price is negotiated, so customers have a say at setting the price, the service will feel acceptable.

From this research and the interviews, a simple model (Figure 55.) for using customers' perceived value for pricing can be built.

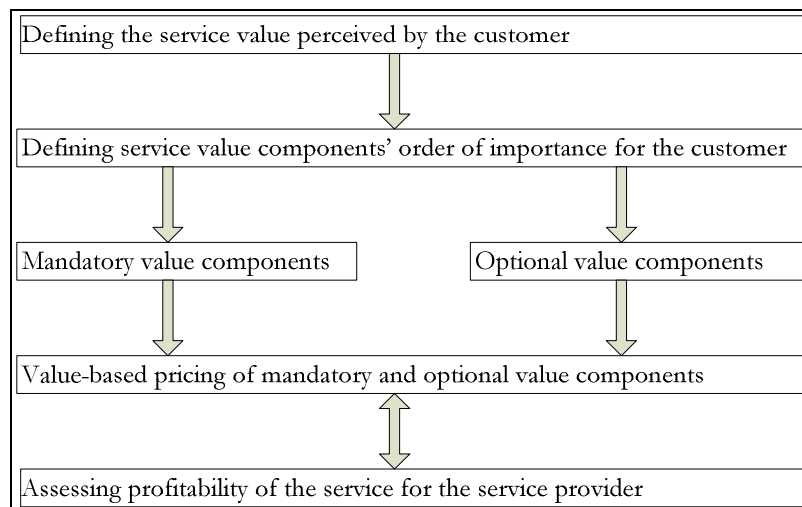


Figure 55. Model for using perceived value for pricing of services.

As a starting point, a definition of the perceived service value of the customer is needed. From that definition, service value components' order of importance for the customer can be defined. In the model, I've chosen to categorize them in two groups: mandatory value components and optional value components. Mandatory value components are those value components which customer wants to provide the base value of the service. Optional value components are those value components which provide additional value for the service. After components are categorized, service provider uses value-based pricing to set price for

each value component. Finally service provider assesses the profitability of the service and either adjusts pricing or declines building the service.

For example, Customer wants to outsource their helpdesk service. They want the quality of service to be average, but they want real-time response time. In this case, mandatory value component would be the real-time response time (responsiveness in service quality). It is the greatest benefit customer gets from the service. Optional value component could be, for example documentation (tangibles in service quality). As for pricing, service provider would price the real-time response time higher, than documentation of the service, since it provides the customer the greatest benefit.

Before answering the research problems, let's shortly summarize the results from the interviews that were introduced in Chapter 4.

Summary of basic information about the companies that were interviewed.

All interviewed companies were small and medium-sized. All of them consider themselves as a service industry companies, although some companies were having something considered as production industry. The majority clientele of interviewed companies were companies. All of the companies worked in co-operation or were networked with other companies. Majority of the people who were interviewed were related to outsourcing of ICT companies. Minority considered their selves just users of the outsourced ICT service. About third of the interviewees used ICT services provided by CitiusNet Ltd. daily, about third weekly and about third monthly, the usual communication being phone, email or both of them.

Summary of interviewed companies' resources.

All of the interviewed companies used some kind of ICT for their daily operations. Majority of the interviewed people assessed that their companies were very dependant of ICT. Majority of the companies bought all or majority of their ICT services from CitiusNet Ltd., but they also bought some ICT services from other service providers.

Summary of commercial service value to the customer.

Commercial value of the customer seemed to follow the theories that were introduced in Chapter 2. The following value-adding components can be discerned from the interviews from Chapter 4:

1) Economic value

This value driver is very important, because it's mainly concerns customers' perception of the service price. When asked for free review of the price, half of the interviewees thought it were expensive and half thought it was OK. For the economic value to be good for the customer, price shouldn't be the only attribute. Other good economic values to remember are financial gain and use of resources, like staff and time. Like I8 answered "In the end it's always balancing the Euros in cost efficiency and quality of the service provided".

2) Performance value

This value concerns customer's perception of the utility of the service. When asked to compare price to the benefits gained majority thought that pricing was OK, and minority thought it was slightly expensive or expensive. As long as the customers know what they are paying for they are content. The reliability of the service provided is performance value. Values identified from the interviews were: Technical know-how of CitiusNet Ltd., maximizing capacity and availability of infrastructure, reliability and continuity of the service.

3) Supplier value

This value concerns customer's perception of the warranty of the service. It comes from customer's perception of the service provider's credibility and the warranty of the service that comes from responsiveness, assurance, empathy, imago/brand and tangibles of the service provider. Values identified form interviews were: Ability to understand customer needs, warranty of the service, up to date know-how.

4) Buyer motivation

This value concerns customer's psychological motivation. For example if customer has prejudices for certain services, he will try to avoid buying them. Also if he has good experiences from service provider, he will want to buy new services. Values identified from interviews were: Need for local partner, don't want to have ICT knowledge.

5) The buying situation

This value concerns the buying situation and customer value perception which may affect to purchasing behaviour. One value identified from interview was: The knowledge that customers can't handle everything by themselves.

Summary of the knowledge of CitiusNet Ltd. and the general review of the services.

According to interviews apart from technical knowledge, the staff of CitiusNet Ltd. needs communication skills to be able to provide services to customers. All the interviewees, had expectations for the services, the main expectations being reliability of the service and warranty that service is provided swiftly. For the good and successful thing rose both reaction time for customers' problems and customer service. For flaws and weaknesses the most common were related to lack of knowledge or personified knowledge. As a waste in service provided, the some of the interviewees felt that costs were bit too high; the service didn't provide enough commercial value and the service lacked development. The best experiences related to customer service, swiftness of the service provided and flexibility of the service.

Summary of service reliability.

According the interviews, all the interviewees felt that services provided by CitiusNet Ltd. were reliable. Majority thought that information provided to them was accurate, although some of them felt that some improvements could be done in areas of reporting and communicating with customers. All interviewees answered that CitiusNet Ltd. keeps promises that they make for their customers, and most of them answered that CitiusNet Ltd. does things right most of the time. They all also answered that billing of the services was clear and accurate.

Summary of service warranty.

According the interviews the warranty of the services provided by CitiusNet Ltd. was good. Professional skills and know-how were rated good or excellent. Know-how of substituting personnel was thought to be technically good, but some interviewees felt that there were clear abnormality in the quality service due unfamiliarity with the customers' infrastructure or personnel. Adaptability of the service was generally thought to be good. Communication skills of the CitiusNet Ltd.'s staff were thought to be good, with few exceptions of using too

technical / nerd language with the customer. Security of the services provided was good according interviewees and they found it assuring that CitiusNet Ltd. takes security of their customer seriously. Most of the interviewees believed that CitiusNet Ltd.'s ability to provide custom-made services for them was good. However, answers about the CitiusNet Ltd.'s ability to provide creative solutions varied. Some thought it good, some wanted it more, and some thought it was increasingly difficult for CitiusNet. When assessing CitiusNet Ltd.'s ability to use new technology to create new solutions, most of the interviewees thought that it was good, but the marketing and bringing forth this new know-how was insufficient. Also answers about assessing the ability to provide system solutions varied. Some thought that it was fine, some thought it was not.

Summary of CitiusNet Ltd.'s imago.

Majority of the interviewees answered that imago of CitiusNet Ltd. by office appearance was good. Imago of CitiusNet Ltd. by employees' appearance was considered as good by majority of the interviewees. Imago by handling of the services was considered good by majority. Imago of CitiusNet Ltd. by documents and reports was considered good and almost excellent. CitiusNet Ltd.'s reputation and trustworthiness were also rated good and excellent. The challenge in future will be maintaining this positive picture of customers and even spreading it further.

Summary of empathy.

All of the interviewees thought that interaction between CitiusNet Ltd. and their company is good and open. Majority of them also thought that CitiusNet Ltd. understands their companies' business processes at least at an average level, but some pointed this being a possible point for improvement. Customer friendliness was rate to be good. About half of the interviewees had gotten proactive suggestions for improvement concerning services and systems provided by CitiusNet Ltd., but about half answered that they haven't got those kinds of suggestions. About third of the interviews answered that they get enough alternative options in competitive situations, and about third that they don't. Mostly the lacking options were due prices or unfamiliarity of other possibilities. Flexibility of the CitiusNet Ltd. as a business partner was considered good or excellent. The commitment of CitiusNet Ltd. to improve both companies was said to be good.

Summary of response time.

Readiness of CitiusNet Ltd. to help and give information to customer was rated good or excellent. Also willingness to work with the customer was rated good. All the interviews said that it was very easy to contact CitiusNet Ltd. Reaction time for customer queries were also rated good and excellent.

Summary of the value provided by service.

Free reviews of the service value by reliability, warranty, imago, empathy and response time was rated good or excellent by majority of the interviewees. Answers about free review of the pricing varied. About half of interviewees thought that pricing was ok, but also half of interviewees thought it expensive. Majority of the interviewees do price comparison of service providers. Also answers about effects of competition varied. About half of answerers thought that competition would drive prices down, while half of answerers thought that the price would stay about the same.

Summary of time, effort and energy spent.

Majority of the answerers said that they rarely meet the representatives of CitiusNet Ltd., and that the meetings should be improved somehow (if not more often, then at least regularly). Workload of negotiations varied and mainly seemed to depend of familiarity with ICT. All the answerers used at least few hours per week to handle ICT of their companies, but no one wanted to reduce their amount. Main reason being that it was minimum required to handle and stay in touch with the ICT. All the answerers said that their companies and CitiusNet Ltd. hadn't had any business conflicts or conflicts of meeting mutual targets.

Summary of general questions.

All together CitiusNet Ltd. got lots of positive feedback and some suggestions for improvements.

How can we be sure that the service is profitable? Truth is that we cannot predict the future. However, by understanding from what components the value of the service consists of and how to provide good enough service for the customers, we can make almost any service profitable.

So can we measure the profitability? Of course we can. In a nutshell, it is simple mathematics. Service price minus service costs. This leaves us a margin that is either positive and profitable or negative and unprofitable. The margin is get via pricing. However, there are two kind of pricing models: cost-based pricing and value-based pricing. Cost-based pricing is that tends to focus on creating short term value for service provider and value-based pricing tends to focus on customers' perception of the service value.

What do the customers perceive as a value in the service? That's an assessment of the utility of a service based on perceptions what is received and what is given and this can be sub-categorized into value drivers that were earlier described. The key factor is to make customer understand all the value-adding components of the service. The more the benefits are realized, the more acceptable price will be.

Can CitiusNet Ltd. base its pricing to the view of customers and their values? The answer is yes. It is possible to implement value-based pricing for IT services, by defining the target segment, determining the value customer perceives in the service, determining the price customer is willing to pay, and then making cost volume profit analysis. There lies the next step, which is further case study of value-based pricing.

So should the further case study be made? When looking at the results of the interviews, many of the customers thought that prices of CitiusNet Ltd. were expensive. For the current customers reminding and introducing the value-adding components might be enough to make prices acceptable.

The real problem with current cost-based and time-based pricing is that customers can't predict their own ICT costs easily and those costs can vary a lot. In value-based pricing, the earning logic is switched around. First comes defining value of the service for customer, then what customer is willing to pay, and then comes the assessment and decision that can the service be made profitably. If for example, customer wants a service that is continuously improved, the value of improving the service is included to the price, and used as a budget to define how much resources service provider can use to improve that service. Also the more important the values are for the customer, more benefits he sees and feels from the service, and the better he will pay for it. As the theory part pointed out, the price is not the only value driver why customers choose to buy the service. It's the other value-adding

components, like reliability, customer friendliness and quality of the service that matter more.

How to start the further case study? Target segment of CitiusNet Ltd. is defined in the strategy of the company. This thesis and the interviews related can be used as a base for further research and as a tool to defining the values of CitiusNet Ltd.'s customers. All what remains is a decision to test value-based pricing with new or existing customer.

6 CONCLUSIONS

This research has explained the central importance and need of value-based pricing in ICT services; Both ITIL V3 and ISO/IEC are tools for making the quality of the service better, but they do not clearly tell how to measure value of service or how to set price for services.

The purpose of this thesis was to research value-based pricing, how to define value of ICT services and how to ensure that new services are profitable from the service provider's point of view. Additional purpose was to define the value-drivers that customers feel important.

The research has shown that similar value-adding components exist in ICT services that were introduced in the theory and exist in other services. Those value-adding components can be used to define value of ICT services to customers. By using value-based pricing new services can be ensured to be profitable from the service provider's point of view. Value-based pricing can be integrated to both ITIL V3 and ISO/IEC 20000 making them even more customer driven. In the research several value-drivers that customers felt important were defined. This research has also shown in practice that customers feel the price of service acceptable, when they know from what the service and its value consists of.

The results of this research support the idea that value-based pricing can be used as a viable option for cost-based pricing. Value-based pricing also enables the customers to realize the real service value provided and make them more comfortable with price. Customers' perceived value of services is closely linked to quality of the services provided. Interviews and the results of this research also enhanced CitiusNet Ltd.'s understanding of its customers. This research and the interviews related will be used as a base for further study and to determining the values of CitiusNet Ltd.'s customers.

The most important limitation of this research was lack of actual case study of using value-based pricing in practice. So the profitability of cost-based pricing and value-base pricing couldn't be compared. Further research in this field could be a case study of the implementing process of value-based pricing of ICT services and comparison of profitability of cost-based pricing and value-based pricing by comparing desired and residual margins. Also Figure 55, model for using perceived value for pricing of services could be further developed.

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LIST OF APPENDICES

Appendix 1: Thematic Interview about Service Value