

Chapter 6

Findings and Recommendations

Literature Study	Internet Services The Marketing of Services Relationship Marketing Interrelationships between constructs
Methodology	Survey and Analysis
Qualitative Findings	Visualisation of Internet Service provision Service breakpoints (Fail Points)
Quantitative Findings	SERVQUAL Interrelationships between constructs
Recommendations	Defining a portfolio of projects Academic recommendations

In this chapter the following elements will be covered in order fulfil the objectives stated within the problem statement in Chapter 1:

- (1) Internet service delivery will be blueprinted in order to gain a more holistic understanding of consumer Internet service delivery
- (2) Fail-points in service delivery will be identified and prioritised from the customers viewpoint
- (3) All of the hypotheses stated in Chapter 5 will be empirically tested – the reliability and validity of the SERVQUAL scale, the flow construct as profiling construct and interrelationships of constructs as modelled
- (4) A portfolio of projects will be suggested to positively influence the respective constructs within the model
- (5) Academic recommendations will be given with relevance to future research

6.1 Qualitative Findings

To develop a visual representation of an Internet service providers service design by utilising service blueprinting.

As mentioned in Chapter Two, a service blueprint is essentially the product component within the marketing mix of a services firm. Blueprinting is thus the point of departure for service design, measurement and execution.

Blueprinting was used in this study to assure that every action type between the service provider and the subscriber is measured within the SERVQUAL instrument. The second reason for utilising blueprinting is that certain fail-points can be isolated for improvement.

Figure 6.1. Overview of the blueprint for consumer Internet services.

SERVICE BLUEPRINT

INPUT

OUTPUT

Subscribe to
ISP

Requests
Information

Update
Information/
Services

Utilizes
Internet
Services

Terminates
Services



Subscriber



Subscriber



Subscriber



Subscriber



Subscriber

MECHANISM

Figure 1.1: Service blueprint for subscription of internet services

Figure 6.2. The Blueprint for subscription to Internet services.

Examples of potential fail-points:

- (1) No credit checking process in the registration process.
- (2) No incentive or measurement of service level agreements with clients to be fully register within 24 hours after application.

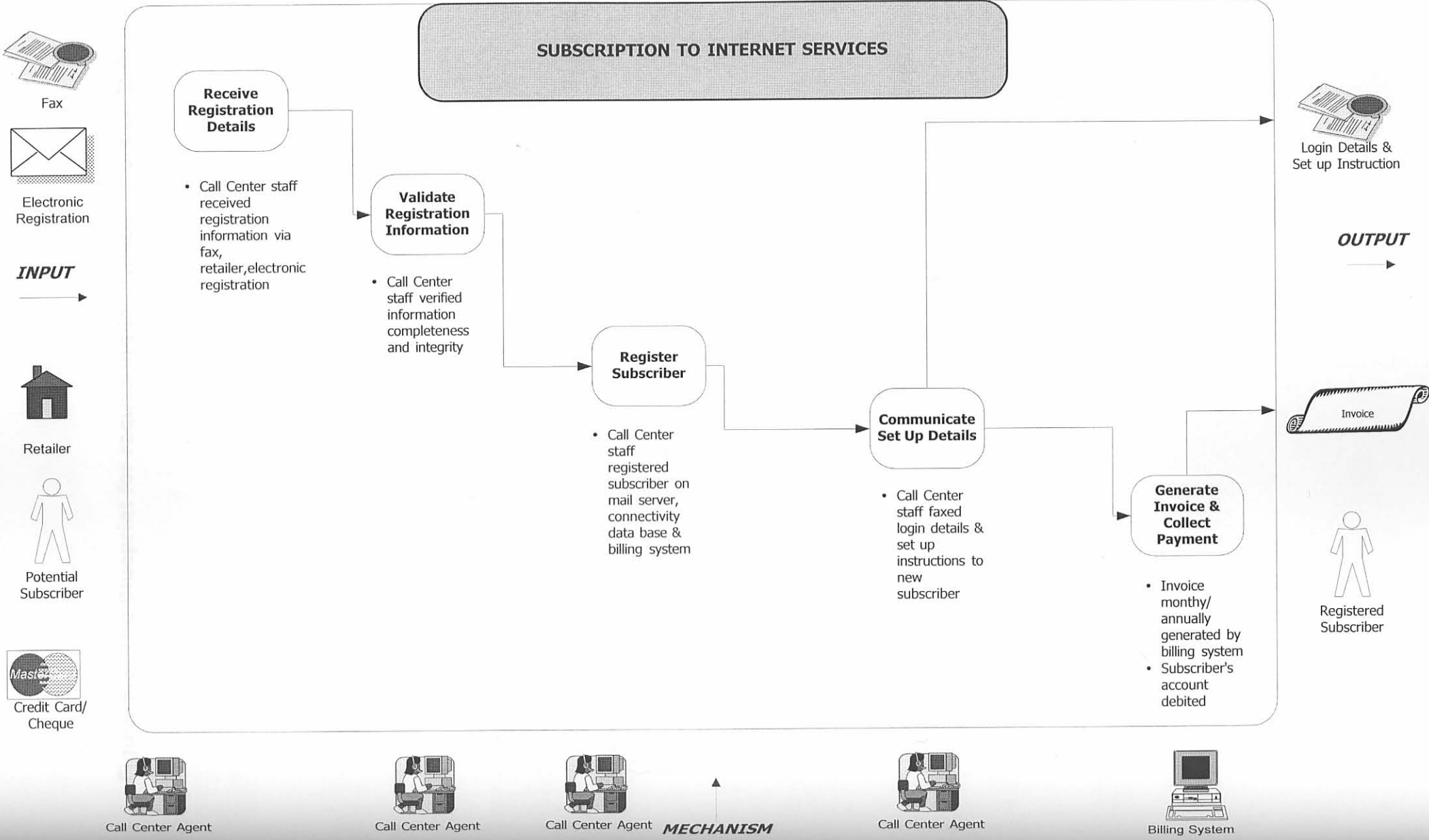


Figure 6.3. The Blueprint for requesting information from an ISP.

Examples of potential fail-points:

- (1) The support consultant does not reply to the subscriber.
- (2) The information is not available to be disseminated.

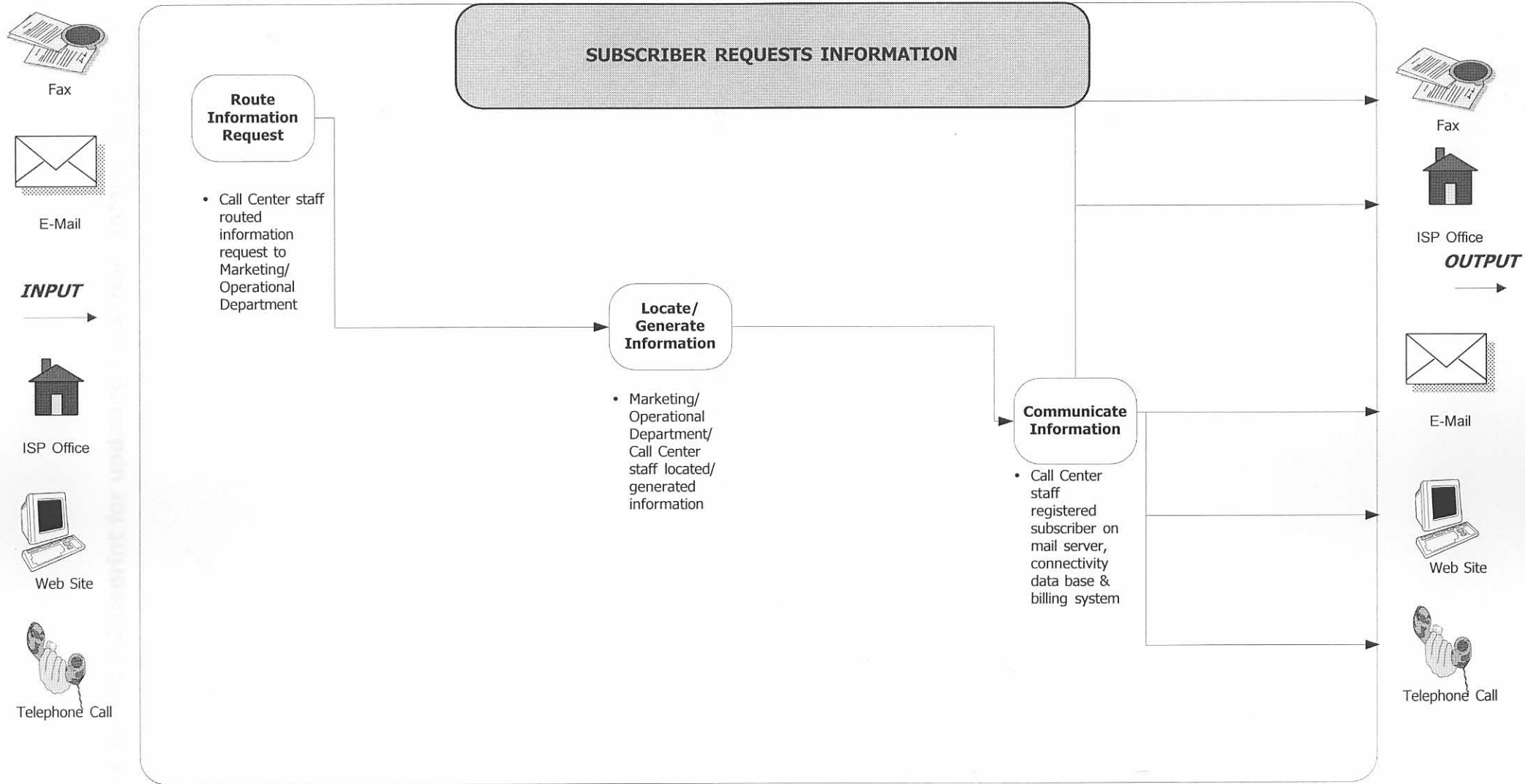


Figure 1.1: Request for updates & data



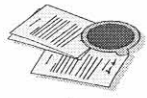
MECHANISM



Figure 6.4. The Blueprint for updating subscriber information.

Examples of potential fail-points:

- (1) A subscriber does not update the service provider.
- (2) The changes are not successfully executed on all the systems it needs to be.



Fax



E-Mail

INPUT



ISP Office



Web Site



Telephone Call

Receive Information Update Request

- Call Center staff received request to update subscriber's banking/personal details

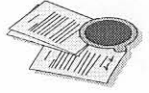
Update Information

- Call Center staff updated information on billing system, mail system, connectivity data base

Confirm Details Changed

- Call Center staff confirmed changed details via fax

SUBSCRIBER UPDATES PERSONAL INFORMATION



Fax

OUTPUT



Call Center Agent



Call Center Agent

MECHANISM



Call Center Agent

Figure 6.5. The Blueprint for cancellation of Internet services.

Examples of potential fail-points:

- (1) The call centre consultant does not always obtain cancellation reasons.
- (2) No active win-back strategy exists.



Fax



ISP Office

INPUT



Letter of Cancellation

SUBSCRIBER TERMINATES SUBSCRIPTION

Receive Cancellation Request

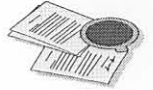
- Call Center staff received quest to cancel subscriber's services

Update Information

- Call Center staff updated information on billing system, mail system, connectivity data base stating reason for cancellation

Confirm Cancellation

- Call Center staff confirmed service termination



Fax

OUTPUT



Call Center Agent



Call Center Agent

MECHANISM



Call Center Agent

Figure 6.6. The Blueprint for service utilisation.

Examples of potential fail-points:

- (1) The service is not available.
- (2) No reason is provided why the service is not available.

User name & Password

INPUT

User name & Password

SUBSCRIBER UTILIZES SERVICES

Logs on to Internet

- Subscriber logged onto the Internet via Telkom line, Modem, and Personal Computer

Communicates via the Internet

- Subscriber sent & received e-mail and collaborated via news groups

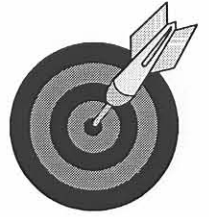
Surfs via Internet

- Subscriber viewed and requested information via the Internet

Transacts via Internet

- Subscriber engaged in financial transacting via the Internet

OUTPUT



Internet experience



MECHANISM



Through the qualitative questions mentioned in the previous chapter, 582 fail point incidents were identified (Table 6.1). These fail points were then categorised in eight categories:

- (1) Applying for services and distribution of service points–fail points categorised under this heading includes: No network point of presence within local telephone call range; time from service request/application to service activation is too long; problems in service activation; getting application forms or starter CD's.
- (2) Setting system up for Internet usage: Configuration of modem, computer, browser, e-mail package and dial-up connectivity.
- (3) Utilising Internet services: The fail points within this category will be divided between the ones that the ISP can control and the ones within the control of the network provider/SAIX (see Chapter 1 on virtual ISP's). SAIX is responsible for the dial-up connection (availability, reliability, speed) and newsgroups. The ISP is responsible for the e-mail server, Domain name server, and mail security.
- (4) New product development, cross selling and value added services: New products like ISDN requested but not available, configuration and usage of value added services for example the 5 MB free personal hosting space.
- (5) Service cancellation: Subscriber cancels service but invoicing continues or service is still active.
- (6) Billing and invoicing systems: Wrong amounts subtracted from the subscribers bank account, no billing and sudden incorrect billings.
- (7) Communication: Communication breakdown, calls are not returned, information is inaccurate, the web page does not work and telephone consultants are not available.
- (8) Pro-active information dissemination: Informing subscribers about changes in service, configurations and value added services before it happens.

Table 6.1. Client Lifecycle fail-points.

Applying for Services	System configuration for Internet	Utilising the Internet	Value added services and new product cross selling	Service cancellation
No Point of presence in geographical area	Browser, e-mail, modem configuration	SAIX – Dial-up connection	New product development	Cancel subscription
Application process is too slow		SAIX – Availability of a connection	5 MB personal web-space	
Problems in service activation		SAIX – Reliability of a connection	Update services	
Getting hold of application forms, starter pack		SAIX – Speed of a connection		
		SAIX – Newsgroups		
		ISP – Mail		
		ISP – Domain name services		
		ISP – Mail security/Spamming		
	BILLING	BILLING	BILLING	
COMMUNICATE	COMMUNICATE	COMMUNICATE	COMMUNICATE	COMMUNICATE
PRO-ACTIVE COMMUNICATE	PRO-ACTIVE COMMUNICATE	PRO-ACTIVE COMMUNICATE	PRO-ACTIVE COMMUNICATE	PRO-ACTIVE COMMUNICATE

The prioritising of fail-points to be addressed within the ISP is essential for the effective resolution of fail-points (Table 6.2).

Table 6.2. Fail-point priorities to be resolved.

	Failings	No Recovery Made	Fail Point Priority	Recovery Priority
APPLYING FOR SERVICES:				
Geographical POP availability	50%	50%	LOW	MEDIUM
Slow on signing a new subscriber up	0%	100%	LOW	HIGH
Problems in signing up as a subscriber	50%	50%	LOW	MEDIUM
Getting application forms/disk to get connected	67%	33%	LOW	LOW
SETTING SYSTEM UP FOR INTERNET:				
User settings	43%	57%	MEDIUM	HIGH
USING THE INTERNET - SAIX/NETWORK:				
Connection	69%	31%	HIGH	LOW
Availability of a connection	49%	51%	HIGH	HIGH
Reliability of a connection	77%	23%	HIGH	LOW
Speed	92%	8%	HIGH	LOW
Newsgroups	67%	33%	LOW	LOW
USING THE INTERNET - ISP:				
Mail Server	47%	53%	HIGH	HIGH
DNS server	33%	67%	LOW	HIGH
Security	0%	100%	LOW	HIGH
SPAM	50%	50%	LOW	MEDIUM
NEW PRODUCTS AND VALUE ADDED SERVICES:				
New product development	100%	0%	LOW	LOW
5 MB usage	100%	0%	LOW	LOW
Update services	50%	50%	LOW	MEDIUM
Cancel services	0%	0%	LOW	LOW
BILLING:				
Billing problems	78%	22%	MEDIUM	LOW
COMMUNICATING:				
Intekom home page	67%	33%	LOW	LOW
Communication breakdown	76%	24%	LOW	LOW
Wrong information / Inaccurate	50%	50%	LOW	MEDIUM
Empathy	100%	0%	LOW	LOW
PRO-ACTIVE INFORMATION DISSEMINATION:				
Pro-active information dissemination	44%	56%	LOW	HIGH

6.2 Empirical Findings

Testing the reliability and validity of the SERVQUAL instrument for the measurement of service quality in the Internet industry.

The reliability of each of the dimensions was assessed using the Cronbach (1951) alpha (Table 6.3). The tangibles dimension provides the most concern, because the reliability measures are below the 0.70 level required for commercial applications (Carman, 1990).

Is the compound SERVQUAL scale a reliable measure of service quality within the Internet industry?

Table 6.3. Reliability of the SERVQUAL scale.

Cronbach alpha: .903			
Average inter-item correlation: .649			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
Core service dimension	0.489	0.294	0.925
Tangibility dimension	0.693	0.517	0.892
Reliability dimension	0.829	0.753	0.871
Responsiveness dimension	0.789	0.763	0.877
Assurance dimension	0.867	0.814	0.868
Empathy dimension	0.797	0.708	0.876

The SERVQUAL scale is a reliable measure of service quality within the Internet industry. The reliability of the scale is higher if the tangibility and core service dimensions are eliminated:

Table 6.4. Reliability of the SERVQUAL scale with core service and tangible dimensions omitted.

Cronbach alpha: .931			
Average inter-item correlation: .784			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
Reliability dimension	0.815	0.709	0.918
Responsiveness dimension	0.869	0.771	0.899
Assurance dimension	0.894	0.809	0.896
Empathy dimension	0.790	0.694	0.925

Possible reasons for the low reliability of the core service and tangibility dimension is:

- (1) The core service of bandwidth connectivity is hard to describe and conceptualise. The Internet experience moves the emphases towards application of the connectivity layer. It is thus possible that subscriber's bundle their judgement of the core service into their experience of the specific application that they use the Internet for.
- (2) The tangibility of the service is not necessarily important for the subscriber since they are viewing the infrastructure, similar to telephone services, as an enabler and not a physical product. Tangibles can possibly be viewed as a quality surrogate by some. The interplay between these different perspectives towards tangibles may explain the unreliability of the dimension.

Is the core service dimension of the SERVQUAL scale reliable?

Reliability and Item analysis were done in order to establish the reliability of the core service dimension (Table 6.5).

Table 6.5. Reliability of the core service dimension.

Cronbach alpha: .730			
Average inter-item correlation: .477			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
1. The speed of your Internet connection	0.532	0.284	0.666
2. The reliability of the connection	0.591	0.351	0.598
3. The availability of a connection	0.546	0.302	0.656

Is the tangible dimension of the SERVQUAL scale reliable?

Reliability and Item analysis were done in order to establish the reliability of the tangibles dimension (Table 6.6).

Table 6.6. Reliability of the tangible dimension.

Cronbach alpha: .604			
Average inter-item correlation: .355			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
4. Technologically advanced infrastructure	0.435	0.194	0.476
5. Customer friendliness of the	0.424	0.183	0.515

Internet service provider			
6. Visually pleasing materials associated with the products and services	0.426	0.181	0.526

Is the reliability dimension of the SERVQUAL scale reliable?

The reliability of the SERVQUAL scale reliability dimension was investigated (Table 6.7).

Table 6.7. Reliability of the reliability dimension.

Cronbach alpha: .854			
Average inter-item correlation: .508			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
7. When promising to do something, the ISP does so	0.680	0.549	0.822
8. When customers have a problem, the ISP shows a sincere interest in solving it	0.710	0.577	0.818
9. Carrying out all service correctly the first time	0.683	0.508	0.823
10. Providing the service at the promised time	0.727	0.577	0.813
11. Providing error free documentation	0.547	0.333	0.846
12. Keeping customers informed about when services will be performed	0.525	0.311	0.854

Statements 11 and 12 had a low multiple R. Reasons for this might include:

- (1) P11: Providing error free documentation, like keeping records and Internet explorer set-up instructions. It is possible that this statement has a low reliability because of the examples mentioned in brackets. One example is internal to the organisation and the other external. This could have led to misinterpretation of the meaning of the statement.
- (2) P12: Keeping customers informed about when services will be performed, like delivery, invoicing, follow-up, maintenance and enhancements. The low reliability of this statement may be due to the 'black box' nature of Internet services for some subscribers. They might expect that communication would be too technical for them to make sense from it. They just want to be assured of service delivery.

Is the responsiveness dimension of the SERVQUAL scale reliable?

The reliability of the responsiveness of the SERVQUAL scale was investigated (Table 6.8).

Table 6.8. Reliability of the responsiveness dimension.

Cronbach alpha: .867			
Average inter-item correlation: .698			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
13. Prompt service to customers	0.733	0.545	0.840
14. Willingness to help customers	0.737	0.561	0.830
15. Readiness to respond to customer's requests	0.795	0.636	0.768

Is the assurance dimension of the SERVQUAL scale reliable?

The reliability of the assurance dimension of the SEVQUAL scale was investigated (Table 6.9).

Table 6.9. Reliability of the assurance dimension.

Cronbach alpha: .902			
Average inter-item correlation: .613			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
16. The attitude and behaviour of employees that instils confidence in customers	0.801	0.674	0.874
17. Customers that feel secure in their involvement	0.765	0.602	0.880
18. Ensuring that problems are resolved above expectation	0.758	0.600	0.882
19. Employees that are always courteous with customers	0.686	0.533	0.893
20. Being a credible Internet service provider	0.682	0.476	0.892
21. Employees that have the knowledge to answer customers questions	0.724	0.529	0.886

Statement number 20: "Being a credible Internet Service Provider with trustworthiness, integrity and honesty, name and reputation." had a low squared Multiple R. A potential reason for this might be that conflict of perceptions regarding Telkom and it's subsidiaries exists. Some subscriber's may have a very positive association with Telkom's name and reputation while other might see them as monopolistic and arrogant. The reference to

integrity and reputation within the same description might thus lead to a high level of divergence in responses based on sentiments rather than the understanding of the question. In other words it is possible that this statement might elicit, in some instances, an emotional rather than a rational response.

Is the empathy dimension of the SERVQUAL scale reliable?

The reliability of the empathy dimension of the SERVQUAL scale was investigated (Table 6.10).

Table 6.10. Reliability of the empathy dimension.

Cronbach alpha: .909731			
Average inter-item correlation: .636404			
	Item-to-Total Correlation	Squared Multiple R	Alpha if Deleted
22. Always being approachable	0.658	0.450	0.906
23. Treating customers with empathy	0.758	0.593	0.894
24. Keeping customers informed and listening to them	0.721	0.524	0.897
25. Providing personal attention	0.814	0.686	0.884
26. Have customer's best interests at heart	0.779	0.642	0.889
27. Understanding the specific needs of customers	0.782	0.623	0.888

Statement 22: "Always being approachable through means such as easy access to management, prompt telephone access and ease of contact." This statement possibly has a low reliability because mentioning "prompt telephone access" in brackets may be confusing to certain subscribers. The confusion can potentially exist between the concepts of Internet telephone access and support telephone access. In other words some subscribers may be judging their perceptions and expectations of the support centre while others rates the dial-up access nodes.

Does reliability have the highest correlation to the compound service quality scale within the Internet industry?

A confirmatory factor analysis around reliability and compound service quality within the SERVQUAL scale (Table 6.11).

Table 6.11. Confirmatory Factor analysis of SERVQUAL.

Dimensions	SEPATH Syntax	Parameter Estimate	Probability Level
Reliability	(Service Quality)-1->[RELP]	0.844	0.000
Responsiveness	(Service Quality)-2->[RESPO]	0.893	0.000
Assurance	(Service Quality)-3->[ASSURP]	0.936	0.000
Empathy	(Service Quality)-4->[EMPAP]	0.840	0.000

It is interesting to note that reliability does not have the highest correlation to the overall SERVQUAL measure within the Internet industry. Reliability is the third highest dimension while assurance is the highest dimension. Note the high model fit – Joreskog GFI = 0.930.

The rationale behind this can be: Technology can be viewed as the 'hard issues'. The importance of the assurance dimension communicates a high standard of conduct, trust and skilled employees to assist subscribers with their Internet experience. In short the human element is very important in guiding a subscribers quality perception of an ISP.

Is the compound SERVQUAL scale valid for the Internet industry?

The validity of the compound SERVQUAL scale for the Internet industry was investigated, please refer again to Table 6.11.

The SERVQUAL scale has a highly satisfactory validity for measuring service quality within the Internet industry.

Is the reliability factor valid?

The reliability factor of the SEVQUAL scale was investigated by doing a confirmatory factor analysis of the items within the dimension (Table 6.12).

Table 6.12. Confirmatory Factor Analysis for the reliability dimension.

Items	SEPATH Syntax	Parameter Estimate	Probability Level
7. When promising to do something, the ISP does so	(Reliability)-1->[P7]	0.773	0.000
8. When customers have a problem, the ISP shows a sincere interest in solving it	(Reliability)-2->[P8]	0.801	0.000
9. Carrying out all service correctly the first time	(Reliability)-3->[P9]	0.733	0.000
10. Providing the service at the promised time	(Reliability)-4->[P10]	0.816	0.000
11. Providing error free	(Reliability)-5->[P11]	0.518	0.000

documentation			
12. Keeping customers informed about when services will be performed	(Reliability)-6->[P12]	0.509	0.000

Note the high model fit – Joreskog GFI = 0.939.

Next the responsiveness factor will be investigated for validity:

The responsiveness of the SERVQUAL scale was investigated by doing a confirmatory factor analysis of the items within the dimension (Table 6.13).

Table 6.13. Confirmatory Factor Analysis for the responsiveness dimension.

Items	SEPATH Syntax	Parameter Estimate	Probability Level
13. Prompt service to customers	(Responsiveness)-1->[P13]	0.790	0.000
14. Willingness to help customers	(Responsiveness)-2->[P14]	0.794	0.000
15. Readiness to respond to customer's requests	(Responsiveness)-3->[P15]	0.905	0.000

The assurance factor is next for validation:

The assurance factor of the SERVQUAL scale was investigated through confirmatory factor analysis (Table 6.14).

Table 6.14. Confirmatory Factor Analysis for the assurance dimension.

Items	SEPATH Syntax	Parameter Estimate	Probability Level
16. The attitude and behaviour of employees that instils confidence in customers	(Assurance)-1->[P16]	0.854	0.000
17. Customers that feel secure in their involvement	(Assurance)-2->[P17]	0.804	0.000
18. Ensuring that problems are resolved above expectation	(Assurance)-3->[P18]	0.797	0.000
19. Employees that are always courteous with customers	(Assurance)-4->[P19]	0.724	0.000
20. Being a credible Internet service provider	(Assurance)-5->[P20]	0.697	0.000
21. Employees that have the knowledge to answer customers questions	(Assurance)-6->[P21]	0.753	0.000

Note the high model fit – Joreskog GFI = 0.951.

The validity of the empathy dimension will now be investigated:

The empathy factor of the SERVQUAL scale was investigated with confirmatory factor analysis (Table 6.15).

Table 6.15. Confirmatory Factor Analysis for the empathy dimension.

Items	SEPATH Syntax	Parameter Estimate	Probability Level
22. Always being approachable	(Empathy)-1->[P22]	0.665	0.000
23. Treating customers with empathy	(Empathy)-2->[P23]	0.787	0.000
24. Keeping customers informed and listening to them	(Empathy)-3->[P24]	0.752	0.000
25. Providing personal attention	(Empathy)-4->[P25]	0.878	0.000
26. Have customer's best interests at heart	(Empathy)-5->[P26]	0.837	0.000
27. Understanding the specific needs of customers	(Empathy)-6->[P27]	0.822	0.000

As with the other dimensions, the assurance dimension has a satisfactory level of validity in the measurement of service quality within the Internet industry. Note the high model fit – Joreskog GFI = 0.974.

Attention now turns to structural equation modelling for the empirical confirmation of the interrelationships between service quality, customer satisfaction and relationship quality:

Before the Structural equation modelling technique can be applied to this hypothesis, the SERVQUAL scale needs to be 'cleaned' from all significant covariance and unreliability's.

First the core service and tangibility dimensions of the SERVQUAL scale will be eliminated to reach a measurement instrument with higher reliability as already illustrated in Table 6.4.

Then covariance will be investigated in order to 'clean' the service quality construct. Variables with a covariance of 0.8 or higher will be eliminated from the correlation matrix except if the variables are part of the same dimension and thus per definition highly correlated (Table 6.16). The highlighted fields indicate these conceptually highly correlated dimensions. The researcher decided on the 0.8 level for elimination because the constructs and dimension are highly interrelated from a conceptual view. In Table 6.16 it can be observed that none of the variables, except the conceptually related ones, exceed the proposed 0.8 level of covariance. No items will thus be eliminated for the structural equation process.

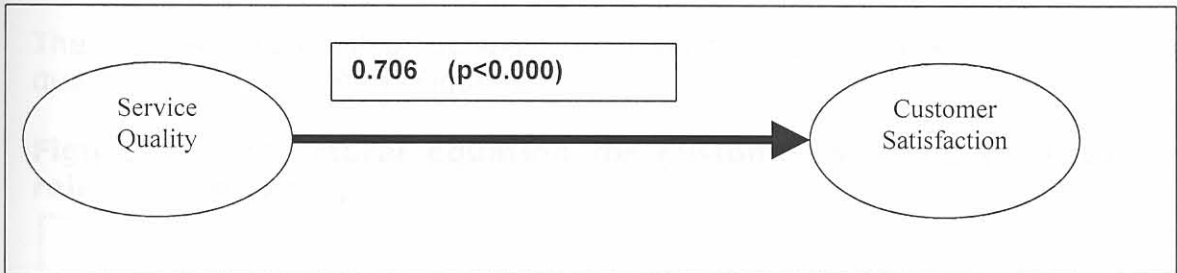
Table 6.16. Correlation Matrix for the SERVQUAL items and dimensions.

	P7	P8	P9	P10	P11	P12	RELP	P13	P14	P15	RESPO	P16	P17	P18	P19	P20	P21	ASSURP	P22	P23	P24	P25	P26	P27	EMPAP
P7	1.00	0.70	0.52	0.63	0.39	0.38	0.85	0.69	0.52	0.61	0.69	0.54	0.51	0.55	0.44	0.46	0.49	0.61	0.49	0.45	0.37	0.47	0.44	0.42	0.53
P8	0.70	1.00	0.58	0.64	0.40	0.39	0.86	0.67	0.72	0.74	0.79	0.70	0.57	0.63	0.56	0.51	0.59	0.73	0.51	0.58	0.42	0.55	0.48	0.47	0.60
P9	0.52	0.58	1.00	0.66	0.46	0.41	0.81	0.57	0.52	0.58	0.62	0.59	0.53	0.60	0.46	0.52	0.60	0.67	0.46	0.50	0.46	0.51	0.47	0.48	0.58
P10	0.63	0.64	0.66	1.00	0.42	0.43	0.87	0.66	0.53	0.61	0.68	0.60	0.56	0.59	0.49	0.49	0.49	0.66	0.47	0.49	0.43	0.49	0.49	0.45	0.57
P11	0.39	0.40	0.46	0.42	1.00	0.49	0.49	0.44	0.44	0.46	0.50	0.43	0.45	0.45	0.38	0.40	0.43	0.52	0.45	0.38	0.41	0.43	0.40	0.42	0.50
P12	0.38	0.39	0.41	0.43	0.49	1.00	0.48	0.45	0.43	0.42	0.49	0.44	0.46	0.48	0.36	0.45	0.40	0.53	0.41	0.40	0.54	0.42	0.44	0.44	0.53
RELP	0.85	0.86	0.81	0.87	0.49	0.48	1.00	0.77	0.67	0.75	0.82	0.71	0.64	0.70	0.57	0.58	0.64	0.78	0.57	0.59	0.50	0.60	0.55	0.54	0.67
P13	0.69	0.67	0.57	0.66	0.44	0.45	0.77	1.00	0.64	0.72	0.90	0.64	0.58	0.65	0.50	0.53	0.56	0.71	0.55	0.55	0.46	0.57	0.55	0.53	0.64
P14	0.52	0.72	0.52	0.53	0.44	0.43	0.67	0.64	1.00	0.73	0.87	0.69	0.57	0.58	0.65	0.50	0.63	0.73	0.56	0.66	0.48	0.58	0.50	0.50	0.65
P15	0.61	0.74	0.58	0.61	0.46	0.42	0.75	0.72	0.73	1.00	0.91	0.76	0.64	0.67	0.62	0.58	0.63	0.79	0.59	0.65	0.50	0.59	0.54	0.55	0.68
RESPO	0.69	0.79	0.62	0.68	0.50	0.49	0.82	0.90	0.87	0.91	1.00	0.78	0.67	0.71	0.65	0.60	0.68	0.83	0.63	0.69	0.54	0.65	0.60	0.59	0.74
P16	0.54	0.70	0.59	0.60	0.43	0.44	0.71	0.64	0.69	0.76	0.78	1.00	0.67	0.68	0.71	0.57	0.66	0.87	0.58	0.68	0.53	0.63	0.57	0.56	0.71
P17	0.51	0.57	0.53	0.56	0.45	0.46	0.64	0.58	0.57	0.64	0.67	0.67	1.00	0.70	0.55	0.62	0.60	0.85	0.58	0.60	0.53	0.62	0.62	0.60	0.71
P18	0.55	0.63	0.60	0.59	0.45	0.48	0.70	0.65	0.58	0.67	0.71	0.68	0.70	1.00	0.53	0.58	0.63	0.85	0.54	0.56	0.52	0.59	0.57	0.54	0.66
P19	0.44	0.56	0.46	0.49	0.38	0.36	0.57	0.50	0.65	0.62	0.65	0.71	0.55	0.53	1.00	0.53	0.56	0.77	0.55	0.75	0.48	0.62	0.51	0.52	0.68
P20	0.46	0.51	0.52	0.49	0.40	0.45	0.58	0.53	0.50	0.58	0.60	0.57	0.62	0.58	0.53	1.00	0.56	0.78	0.53	0.56	0.52	0.56	0.55	0.54	0.66
P21	0.49	0.59	0.60	0.49	0.43	0.40	0.64	0.56	0.63	0.63	0.68	0.66	0.60	0.63	0.56	0.56	1.00	0.81	0.59	0.61	0.53	0.57	0.54	0.55	0.68
ASSURP	0.61	0.73	0.67	0.66	0.52	0.53	0.78	0.71	0.73	0.79	0.83	0.87	0.85	0.85	0.77	0.78	0.81	1.00	0.68	0.76	0.63	0.73	0.68	0.67	0.83
P22	0.49	0.51	0.46	0.47	0.45	0.41	0.57	0.55	0.56	0.59	0.63	0.58	0.58	0.54	0.55	0.53	0.59	0.68	1.00	0.61	0.54	0.57	0.55	0.57	0.77
P23	0.45	0.58	0.50	0.49	0.38	0.40	0.59	0.55	0.66	0.65	0.69	0.68	0.60	0.56	0.75	0.56	0.61	0.76	0.61	1.00	0.61	0.71	0.63	0.63	0.83
P24	0.37	0.42	0.46	0.43	0.41	0.54	0.50	0.46	0.48	0.50	0.54	0.53	0.53	0.52	0.48	0.52	0.53	0.63	0.54	0.61	1.00	0.65	0.62	0.64	0.81
P25	0.47	0.55	0.51	0.49	0.43	0.42	0.60	0.57	0.58	0.59	0.65	0.63	0.62	0.59	0.62	0.56	0.57	0.73	0.57	0.71	0.65	1.00	0.75	0.70	0.88
P26	0.44	0.48	0.47	0.49	0.40	0.44	0.55	0.55	0.50	0.54	0.60	0.57	0.62	0.57	0.51	0.55	0.54	0.68	0.55	0.63	0.62	0.75	1.00	0.72	0.86
P27	0.42	0.47	0.48	0.45	0.42	0.44	0.54	0.53	0.50	0.55	0.59	0.56	0.60	0.54	0.52	0.54	0.55	0.67	0.57	0.63	0.64	0.70	0.72	1.00	0.86
EMPAP	0.53	0.60	0.58	0.57	0.50	0.53	0.67	0.64	0.65	0.68	0.74	0.71	0.71	0.66	0.68	0.66	0.68	0.83	0.77	0.83	0.81	0.88	0.86	0.86	1.00

Table 6.16. Correlation matrix

The first structural equation that will be investigated is if service quality lead to customer satisfaction: (Figure 6.7).

Figure 6.7. Structural equation for service quality leads to customer satisfaction



The 0.706 parameter estimate at $p < 0.000$ confirms that a high level of causality exists from service quality to customer satisfaction. This confirms the first linkage described in Chapter 4. This finding can support Service quality investments within the Internet industry in aid of higher customer satisfaction. Note the high model fit – Joreskog GFI = 0.934.

Does customer satisfaction lead to relationship quality?

As in Table 6.16 above covariance will firstly be investigated in order to 'clean' the relationship quality construct. Variables with a covariance of 0.8 or higher will be eliminated from the correlation matrix (Table 6.17).

Table 6.17. Correlation Matrix of relationship quality.

	RELCONT	SERCONT	SERVADD	RECOMM
RELCONT	1.000	0.813	0.641	0.792
SERCONT	0.813	1.000	0.639	0.807
SERVADD	0.641	0.639	1.000	0.683
RECOMM	0.792	0.807	0.683	1.000

The service continuation (SERCONT) variable will be eliminated from the analysis in order to minimise covariance.

This high level of covariance is interesting because it can be derived that the question: "Based on your experience with Intekom, how likely are you to continue using the services that you are currently using?", co-varies with the sentiments of relationship continuation and recommendation.

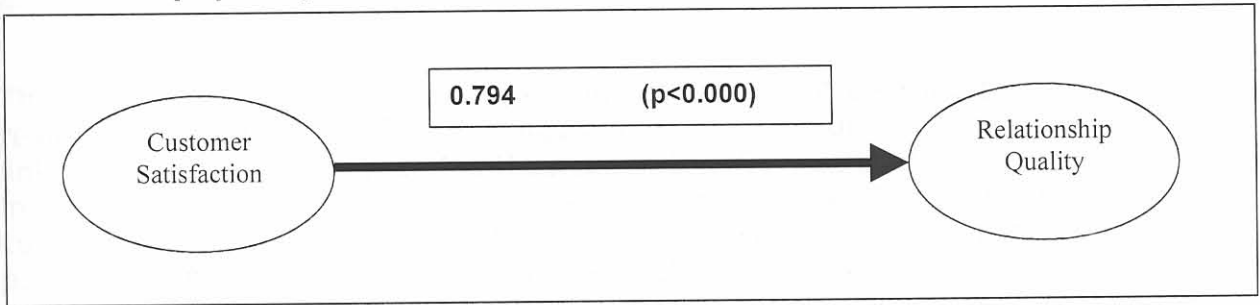
The 'cleaned' correlation matrix has no covariance above 0.8 (Table 6.18).

Table 6.18. Refined Correlation Matrix of relationship quality.

	RELCONT	SERVADD	RECOMM
RELCONT	1.000	0.641	0.792
SERVADD	0.641	1.000	0.683
RECOMM	0.792	0.683	1.000

The causal relationship between customer satisfaction and relationship quality was investigated (Figure 6.8).

Figure 6.8. Structural equation for customer satisfaction leads to relationship quality



The 0.794 parameter estimate at $p < 0.000$ confirms that a high level of causality exists from customer satisfaction to relationship quality. This confirms the second linkage described Chapter Four. The fact that customer satisfaction thus leads to the following positive subscriber sentiments are thus proven. Note the high model fit – Joreskog GFI = 0.991.

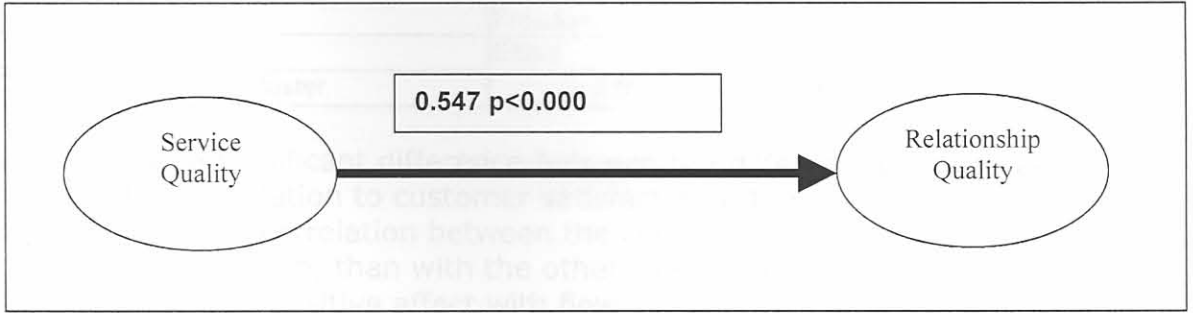
Customer satisfaction leads to:

- (1) Higher ratings on the overall quality of the subscriber’s relationship with Intekom.
- (2) If the subscriber were in the situation to reconsider their relationship with Intekom they would be likely to continue their relationship with them.
- (3) The subscriber would be more likely to use/buy additional services from Intekom in the future.
- (4) A subscriber would be likely to recommend Intekom to a friend, colleague or acquaintances if asked to recommend a company for Internet services.

Does service quality lead to relationship quality?

Whether or not service quality leads to relationship quality was investigated (Figure 6.9).

Figure 6.9. Structural equation for service quality leads to relationship quality



The 0.547 parameter estimate at $p < 0.000$ confirms that a strong causal relationship exists from service quality and relationship quality. The third linkage described in Chapter 4 is thus supported. Service quality improvements can also lead to the positive outcomes mentioned within the customer satisfaction – relationship quality link described above. The parameter estimate is lower for this relationship than the customer satisfaction – relationship quality linkage. This finding alludes to confirmation of the sequence; service quality leads to customer satisfaction, which in turn leads to relationship quality, as described in Chapter Four. Note the high model fit – Joreskog GFI = 0.940.

Testing the hypothesis around different flow bond clusters with respect to customer satisfaction proves there is a significant difference between the different communication flow clusters with respect to customer satisfaction in the Internet industry.

Table 6.19. Differentiation of customer satisfaction based on different communication flow clusters.

	CUSTOMER SATISFACTION
Anxiety	76.454
Flow	84.166
Boredom	77.442

The Index values mentioned in the customer satisfaction column refers to a percentage value.

Table 6.20. Power of differentiation based on different communication flow clusters.

	Degrees of Freedom	
	Effect	p-level
Communication flow cluster	2.000	0.000

There exists a significant difference between the different communication flow clusters in relation to customer satisfaction within the Internet industry. Signs of a higher correlation between the communication 'flow' cluster and customer satisfaction, than with the other clusters leads, to confirmation of the association of positive affect with flow.

Whether or not there is a significant difference between the different surfing flow clusters with respect to customer satisfaction in the Internet industry was investigated (Tables 6.21. and 6.22).

Table 6.21. Differentiation of customer satisfaction based on different surfing flow clusters.

	CUSTOMER SATISFACTION
Anxiety	82.883
Flow	76.198
Boredom	77.500

The Index values mentioned in the customer satisfaction column refers to a percentage value.

Table 6.22. Power of differentiation based on different surfing flow clusters.

	Degrees of Freedom	
	Effect	p-level
Surfing flow cluster	2.000	0.000

There exists a significant difference between the different surfing flow clusters in relation to customer satisfaction within the Internet industry. The researcher did not expect the higher correlation of anxiety with customer satisfaction.

A possible explanation of this could be that no true distinction exists between communication and surfing. Surfing can simply be interpreted as communicating with a Web server.

Is there a significant difference between the different transaction flow clusters with respect to customer satisfaction in the Internet industry?

Table 6.23. Differentiation of customer satisfaction based on different transaction flow clusters.

	CUSTOMER SATISFACTION
Anxiety	78.253
Flow	77.932
Boredom	80.521

The Index values mentioned in the customer satisfaction column refers to a percentage value.

Table 6.24. Power of differentiation based on different transaction flow clusters.

	Degrees of Freedom	
	Effect	p-level
Transaction flow cluster	2.000	0.165

NOT SIGNIFICANT

There does not exist a significant difference between the different transaction flow clusters in relation to customer satisfaction within the Internet industry. The researcher did not expect this finding.

A possible explanation of this could be that Internet transacting is not a leisure-related activity. Subscribers potentially view transacting as a commercial interaction and not a leisure experience. This is an interesting observation because this can be different from traditional 'bricks and mortar' shopping that can in some instances be viewed as a leisure related activity.

Testing hypothesis around a proposed relationship between value added services and respectively service quality, customer satisfaction and relationship quality:

When using multiple regression analysis the following condition will be excepted as significant because the sample size is just over 1000 respondents:

If the coefficient of determination (R square) is:

More than 0.001 for 2 independent variables

More than 0.01 for 1 independent variable

More than 0.02 for 10 independent variables

More than 0.02 for 20 independent variables

The parameter estimate will then explain 80% of the level of the coefficient of determination. (Hair *et al* 1996:104)

Does value added service satisfaction (independent variable) have a positive relationship towards service quality (dependent variable) within the Internet industry? (Table 6.25).

Table 6.25. The relationship between value added services and service quality.

R ² = .550	BETA	p-level
Intercept Point		0.000
E-MAIL SERVICE	0.313	0.000
INTERNET STARTER-KIT	0.213	0.006
TOLL-FREE SUPPORT	0.432	0.000

Value added service satisfaction has a strong positive relationship with service quality. It can thus be concluded that value added services do have a significant positive relationship with the perceived service quality of the service provider.

The toll-free customer support line, e-mail service and starter kit has a significant relationship with the service quality perception. From a toll free support desk perspective (essentially human contact) this finding is in line with the importance of assurance mentioned above.

Does value added service satisfaction (independent variable) have a positive relationship towards customer satisfaction (dependent variable) within the Internet industry? (Table 6.26).

Table 6.26. The relationship between value added services and customer satisfaction.

R ² = .371	BETA	p-level
Intercept Point		0.002
E-MAIL SERVICE	0.320	0.000
TOLL-FREE SUPPORT	0.287	0.000

A positive relationship does exist between value-added services and customer satisfaction. This finding can be viewed as a derivative of the value added service to service quality relationship discussed above. The premise of this is the causal relationships proven earlier in this section.

Does value added service satisfaction (independent variable) have a positive relationship towards relationship quality (dependent variable) within the Internet industry? (Table 6.27).

Table 6.27. The relationship between value added services and relationship quality.

R ² = .314	BETA	p-level
Intercept Point		0.000
E-MAIL SERVICE	0.222	0.006
TOLL-FREE SUPPORT	0.287	0.000

An even weaker positive relationship exists between value-added services and relationship quality than reported above. This finding can be viewed as a derivative of the value added service to service quality relationship previously discussed. The premise of this is the causal relationships proven earlier in this section.

Testing the hypothesis around a proposed relationship between Internet satisfaction and respectively service quality, customer satisfaction and relationship quality:

Does Internet satisfaction (independent variable) have a positive relationship towards service quality (dependent variable) within the Internet industry? (Table 6.28).

Table 6.28. The relationship between Internet satisfaction and service quality.

R ² = .259	BETA	p-level
Intercept Point		0.000
COMMUNICATION SATISFACTION	0.309	0.000
SURFING SATISFACTION	0.266	0.000
TRANSACTION SATISFACTION	-0.008	0.840

Internet satisfaction has a positive relationship with service quality. The coefficient of determination is not as high as the relationship between Internet satisfaction and customer satisfaction. (Table 6.33)

Does Internet satisfaction (independent variable) have a positive relationship towards customer satisfaction (dependent variable) within the Internet industry? (Table 6.29).

Table 6.29. The relationship between Internet satisfaction and customer satisfaction.

R ² = .265	BETA	p-level
Intercept Point		0.000
COMMUNICATION SATISFACTION	0.243	0.000
SURFING SATISFACTION	0.337	0.000
TRANSACTION SATISFACTION	-0.008	0.844

Internet satisfaction has a positive relationship with customer satisfaction. The coefficient of determination is not as high as the relationship between Internet satisfaction and relationship quality.

Does Internet satisfaction (independent variable) have a positive relationship towards relationship quality (dependent variable) within the Internet industry? (Table 6.30).

Table 6.30. The relationship between Internet satisfaction and relationship quality.

R ² = .292	BETA	p-level
Intercept Point		0.000
COMMUNICATION SATISFACTION	0.254	0.000
SURFING SATISFACTION	0.365	0.000
TRANSACTION SATISFACTION	-0.024	0.566

Internet satisfaction has a positive relationship with relationship quality. The coefficient of determination is higher than the relationship between Internet satisfaction and respectively service quality and customer satisfaction. The positive relationship between Internet satisfaction and these constructs to a higher and lesser degree again points to the highly interrelated nature of service quality, customer satisfaction and relationship quality. The fact that the strongest relationship exists with relationship quality can mean that Internet satisfaction is viewed by the subscriber as a relationship bond. A low Internet satisfaction can thus be classified as a critical relationship episode.

Testing the relationship between relationship quality and customer retention:

Does relationship quality have a positive relationship to customer retention? (Table 6.31).

Table 6.31. The relationship between relationship quality and customer retention.

R ² = .010	BETA	p-level
Intercept Point		0.000
RELQUAL	-0.044	0.301
RELCONT	-0.017	0.748
SERCONT	0.085	0.124
SERVADD	0.104	0.010
RECOMM	-0.044	0.424

In line with literature findings a low coefficient of determination exists between relationship quality and customer retention R-square = .010 on the individual subscriber level. The relationship is still significant though at $p < 0.000$.

The following summary findings can be deduced (Table 6.32).

Table 6.32. Summary of empirical findings.

OBJECTIVE:

Testing the reliability and validity of the SERVQUAL instrument for the measurement of service quality in the Internet industry.

	HYPOTHESIS ACCEPTED:	Condition of acceptance or rejection:
H0: The compound SERVQUAL scale is a reliable measure of service quality within the Internet industry.	H0	Cronbach alpha: .903
H1: The core service dimension of the SERVQUAL scale is not reliable.	H1	Cronbach alpha: .730 Squared Multiple R = 0.294 which is unacceptably low in comparison with the other dimensions.
H1: The tangible dimension of the SERVQUAL scale is not reliable.	H1	Cronbach alpha: .604 Below the acceptable 0.70 level required for commercial applications (Carman, 1990).
H0: The reliability dimension of the SERVQUAL scale is reliable.	H0	Cronbach alpha: .854
H0: The responsiveness dimension of the SERVQUAL scale is reliable.	H0	Cronbach alpha: .867
H0: The assurance dimension of the SERVQUAL scale is reliable.	H0	Cronbach alpha: .902
H0: The empathy dimension of the SERVQUAL scale is reliable.	H0	Cronbach alpha: .909
H1: Reliability is not the most important contributor to service quality within the Internet industry. (Nitecki, 1997)	H1	Reliability = 0.844 (parameter estimate) Assurance = 0.936 (parameter estimate) P<0.000
H0: The compound SERVQUAL scale is valid for the Internet industry.	H0	The confirmatory factor loading (parameter estimate) of all the items are significant and the lowest loading is 0.840 P<0.000 Joreskog GFI = 0.930
H0: The reliability factor is valid.	H0	The confirmatory factor loading (parameter estimate) of all the items are significant and the lowest loading is 0.509 P<0.000

		Joreskog GFI = 0.939
H0: The responsiveness factor is valid.	H0	The confirmatory factor loading (parameter estimate) of all the items are significant and the lowest loading is 0.790 P<0.000
H0: The assurance factor is valid.	H0	The confirmatory factor loading (parameter estimate) of all the items are significant and the lowest loading is 0.697 P<0.000 Joreskog GFI = 0.951
H0: The empathy factor is valid.	H0	The confirmatory factor loading (parameter estimate) of all the items are significant and the lowest loading is 0.665 P<0.000 Joreskog GFI = 0.974
Empirically confirming interrelationships between service quality, customer satisfaction and relationship quality.		
	HYPOTHESIS ACCEPTED:	Condition of acceptance or rejection:
H0: Service quality leads to customer satisfaction.	H0	0.70671 (parameter estimate), p<0.000 Joreskog GFI = 0.934
H0: Customer satisfaction leads to relationship quality	H0	0.79437 (parameter estimate), p<0.000 Joreskog GFI = 0.991
H0: Service quality leads to relationship quality	H0	0.54799 (parameter estimate), p<0.000 Joreskog GFI = 0.940
Testing hypothesis around different flow bond clusters with respect to Internet satisfaction and customer satisfaction.		
	HYPOTHESIS ACCEPTED:	Condition of acceptance or rejection:
H0: There is a significant difference between the different communication flow bond clusters with respect to communication satisfaction in the	H0	Parameter estimate 2.000 P<0.000

Internet industry.		-
H0: There is a significant difference between the different surfing flow bond clusters with respect to surfing satisfaction in the Internet industry.	H0	Parameter estimate 2.000 P<0.000
H1: There is not a significant difference between the different transaction flow bond clusters with respect to transaction satisfaction in the Internet industry.	H1	Parameter Estimate 2.000 P<0.165 (not significant)
Testing hypothesis around a proposed relationship between value added services and respectively service quality, customer satisfaction and relationship quality.		
H0: Value added services satisfaction (independent variable) has a positive relationship towards service quality (dependent variable) within the Internet industry.	H0	R ² = .550 (Coefficient of determination) P<0.000
H0: Value added services satisfaction (independent variable) has a positive relationship towards customer satisfaction (dependent variable) within the Internet industry.	H0	R ² = .371 (Coefficient of determination) P<0.002
H0: Value added services satisfaction (independent variable) has a positive relationship towards relationship quality (dependent variable) within the Internet industry.	H0	R ² = .314 (Coefficient of determination) P<0.000
Testing hypothesis around a proposed relationship between Internet satisfaction and respectively service quality, customer satisfaction and relationship quality.		
	HYPOTHESIS ACCEPTED:	Condition of acceptance or rejection:
H0: Internet satisfaction (independent variable) has a positive relationship towards service quality (dependent variable) within the Internet industry.	H0	R ² = .259 (Coefficient of determination) P<0.000
H0: Internet satisfaction (independent variable) has a positive relationship towards customer satisfaction (dependent variable) within the Internet industry.	H0	R ² = .265 (Coefficient of determination) P<0.000
H0: Internet satisfaction (independent variable) has a positive relationship towards relationship	H0	R ² = .292 (Coefficient of determination) P<0.000

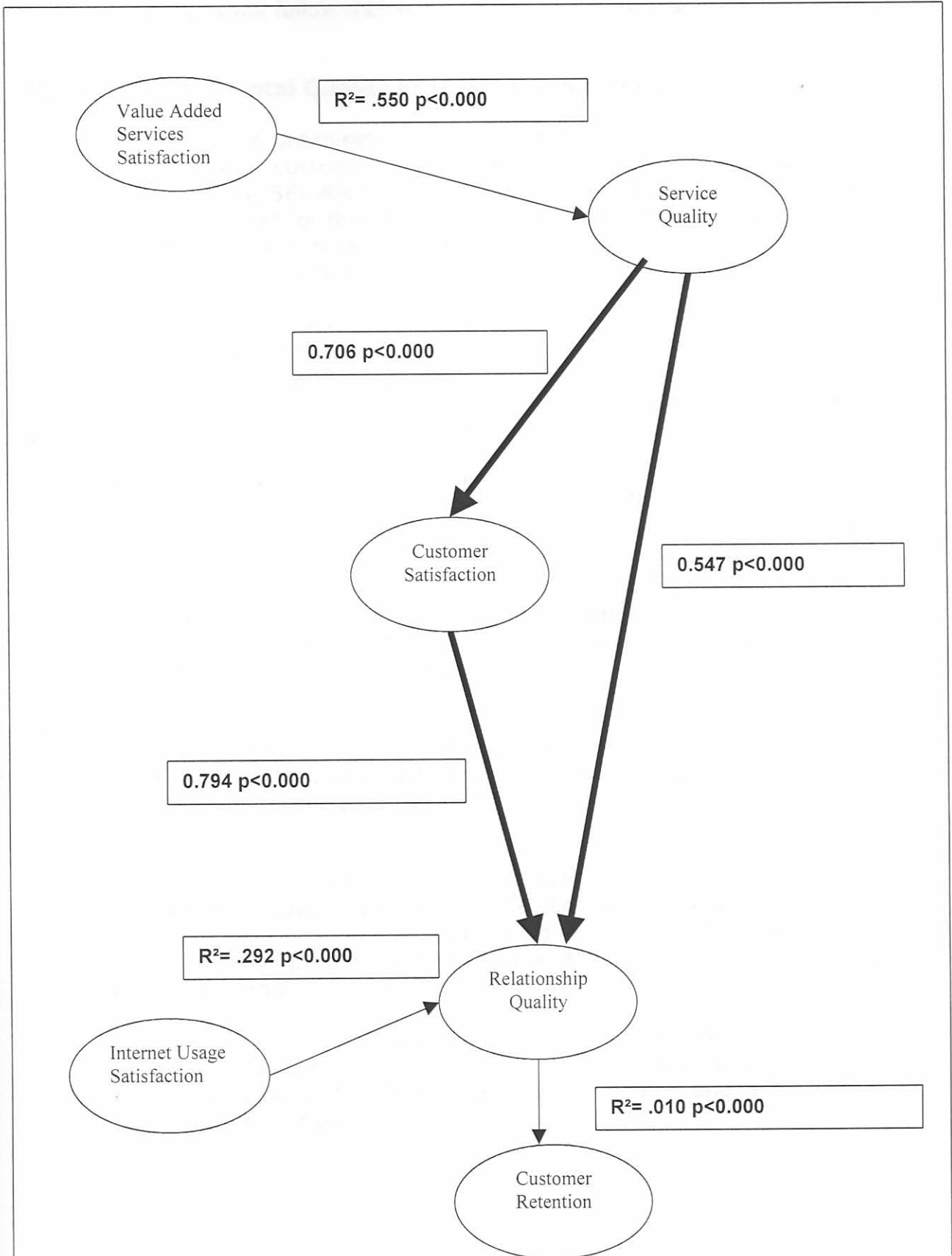
quality (dependent variable) within the Internet industry.		
Testing the relationship between relationship quality and customer retention.		
	HYPOTHESIS ACCEPTED:	Condition of acceptance or rejection:
H0: Relationship quality has a positive relationship to customer retention.	H0	R ² = .010 (Coefficient of determination) P<0.000

R² = .550 p < 0.000

0.000

The key findings can be summarised visually for ease of understanding (Figure 6.10).

Figure 6.10. Visual Summary of key empirical findings



6.3. Practical recommendations

Practical recommendations will be given within the context of five suggested projects to be undertaken by Intekom. Thereafter academic recommendations will follow that is applicable for future research.

6.3.1. Project 1: Total Quality of Service Management.

- (1) Research: The organisation must first research the needs and beliefs of its external customers and internal customers (i.e. employees). In this study the SERVQUAL scale has been proved to be a reliable and valid instrument for the measurement of service quality in the Internet industry. Focus groups and employee questionnaires can be used to assess the needs and beliefs of employees.
- (2) Empowerment: Everyone in the organisation, from top to bottom, must be given the power to develop and maintain a service culture in his or her daily work. Call centre employees must be empowered to give collateral of some kind, 1-month free access or value added services as component of a service recovery.
- (3) Acknowledgement: Management must set the standards of service excellence that its customers (as well as employees) demand. Service level agreements must be negotiated with subscribers and employees.
- (4) Communication – The standard must be communicated to everyone in the organisation, so that they are all focusing in the same direction. Service level agreements must be communicated and awareness campaigns designed to communicate it.
- (5) Help – The quickest and most effective way to help employees understand and appreciate the importance of service excellence is to train them and reward them. Incentives must be given to employees when service level agreements are exceeded.

The EDGE process is a practical arm of REACH. It consists of four stages: Evaluate, Design, Guide, and encourage Excellence. The service EDGE is an interactive and flexible process geared toward encouraging management and staff to take an active part in creating and maintaining a service culture, both internally and externally.

- (1) Evaluate: The first step is to perform an internal and external review of the organisation in order to compare the current service performance with the best practices of others and shortfalls on expectations held by clients.

- (2) **Design:** The gaps are reviewed to determine what has caused them. The current service delivery chain is mapped, service relationships between departments determined, gaps highlighted, and cost-of-service impact analyses performed. Through the workshop approach, employees groups find ways to close the gaps and report to the management for approval. The approved improvements are ranked in order of importance and assembled into a company-wide service implementation plan. Any operational change will be framed within a strategic service vision – a vision to out-think the competition rather than to match them.
- (3) **Guide:** The third step is to put the plan into action. Communication processes are streamlined. Quality teams are empowered. Training is developed and delivered. Performance measures are put in place. The goal is to ensure that a climate of change is felt throughout the organisation.
- (4) **Encourage Excellence:** The integration of service excellence in an organisation is complete when it results in lasting improvements to the business process. Excellence should be fairly rewarded and quality teams should meet regularly. The entire organisation should stay on top and keep up with ever changing customer needs (LOGIC web-site, 1997).

People are always the central theme in quality improvement, while technology gives people the tool to maintain or improve quality.

6.3.2. Project 2: Making employees aware of the 'right things right' grid.

The 'Right Things Right' grid provides an insightful view of quality improvement (Table 6.33). The grid is a simple way to look at the work people do from different angles. The first angle is how a person does the work they do. People either do things right or do things wrong. The second angle has to do with what work people actually do, doing the right things or the wrong things. When combining these two, there are four possibilities:

Table 6.33. The 'Right Things Right' grid.

	Do things right	Do things wrong
Do the right things	Add Value	Quality problems
Do the wrong things	Thing's that don't matter to customers or the company	Real waste of time

(LOGIC web-site, 1997.)

- (1) Doing the right things right, the only grid that adds value to company and its customers.
- (2) Doing the right things wrong, this leads to quality problems.
- (3) Doing wrong things wrong, a real waste of time.
- (4) Doing wrong things right, things that do not matter to customers, internal or external, but doing a good job for them.

6.3.3. Project 3: Developing a Relationship Marketing Strategy.

Developing a core service around which to build a customer relationship: The core service of the Internet service provider – retailing of bandwidth – should be communicated to all employees within the ISP. Consensus around the core service will enable employees to focus on what is strategically important for the ISP.

Customising the relationship to the individual customer through segmentation, personalisation and customisation:

Segmentation:

Different services should be designed for different challenge/skill profile clusters:

- (1) To educate Intekom subscribers in the field that they use the Internet for and by doing this limiting anxiety levels.
- (2) To challenge Intekom subscribers to use the Internet in new ways, for new applications and more effectively integrate it into their daily lives.
- (3) A history must be kept on what subscribers use the Internet for and how they prefer communication, by phone, e-mail or other.

Value is what customers are worth to the Services Company and they must be categorised according to usage and longevity.

Personalisation:

The company has to communicate with each customer in a way that recognises their specific needs and characteristics and persuade them to respond. A customer needs to be 'recognised', when or where he 'touches' the company, whether it's a phone call to sales, a letter querying an invoice, a faxed complaint to customer services, or a web-site visit.

The Intekom newsletter: The monthly newsletter that goes out to all Intekom subscribers. The newsletter will serve as communication tool for new products for existing subscribers, new value added services as well as loyalty programs such as competitions.

The Intekom home page: The Intekom home page will be customised to lend itself to higher levels of customisation within the relationship context. This will be achieved in the following ways:

- (1) Individual customisation: The home page will on a per request basis customise itself around the users skill and challenge levels to provide the optimum mix of education and challenges.
- (2) Portal customisation: The current home page will be customised according to certain topical and interest dimensions on a per request basis. This data will be fed back to the on-line administrator or channel manager who will use it for the facilitation of virtual community creation.
- (3) One-to-one customisation: Intekom will have resources available within a private portal environment to be of assistance to Intekom subscribers in their on-line experiences. These people will function as Internet guides and will provide the ultimate customisation because of the human interaction component that is more advanced than existing technology packages. People external to Intekom will also be recruited to take part in this program. An example is having a sport-star available for questions within the on-line sporting community on Friday afternoons. The sport-star can then get a percentage of the banner revenue to his on-line Q&A session.

The Intekom call-centre: The implementation of the SIEBEL call centre system will enable functions like previous subscriber interactions and problems as well as behavioural segmentation to be at the fingertips of the call centre consultants. Integration of database components from the home page into the call centre application can create even higher levels of personalisation.

Customisation:

Offering customisable products:

- (1) Limited versus unlimited access.
- (2) One or more e-mail accounts.
- (3) Different configurations of value added services.

With mass customisation, companies create standardised modules that can be produced quickly and cost-effectively in quantity. When a firm finds a customer and assesses its needs, it assembles the modules into a custom configuration. To the customer, this product/service bundle has the look and feel of a customised package. In fact, the package is made of standardised modules quickly assembled into a targeted bundle.

Augmenting the core service with extra benefits:

Initiate new products to be developed for existing subscribers.

Examples includes:

- (1) Secure e-mail
- (2) Personalised search-engines
- (3) Virus checking server

Specific attention must be given to:

- (1) E-mail services.

- (2) The Starter Kit.
- (3) Toll-free support.

These services have a strong relation with service quality as proven in the study.

The philosophy behind value added services are to sell what the customer wants not what the service provider already has. A reliable, Internet experience is just a ticket to enter the competitive arena. Over time, customers will want their ISP to make their lives simpler and more convenient and to bring to them new ideas and approaches that match their own beliefs and interests. It's not about what the average customer wants, or what a majority of customers want...this is what each customer wants.

Pricing services to encourage customer loyalty:

- (1) The rewards program: rewarding a customer's purchase behaviour with merchandise unrelated to the brand such as giving frequent flyer miles in return for time spent on the Web.
- (2) The rebate program-'the more you purchase from me the better price I will extend back to you.'
- (3) Negotiating with Telkom to 'sponsor' accounts where the subscriber spends more than a specific time per month on the Internet.

Marketing to employees so that the in turn will perform well for customers: Employees must be trained on customer management and professional telephone communication.

Building trust:

- (1) Communication must be open, honest, and frequent:
- (2) Call subscribers on their birthday or send e-mail.
- (3) Communicate pro-actively if services are not going to be available or configurations change.

Guaranteeing the service:

Service guarantees are another means to build trust. Dissatisfied customers can invoke the guarantee and receive compensation for the burden they have endured. When executed well, service guarantees can symbolise a company's commitment to fair play with customers and facilitate competitive differentiation. Guarantees also force the organisation to improve service to avoid the cost and embarrassment of frequent pay-outs.

A higher standard of conduct:

Companies seeking to build genuine relationships with customers must be willing to operate with a higher standard of conduct than just legality.

6.3.4. Project 4: Minimise fail-points and implement service recoveries.

The following fail-points should receive urgent attention:

- (1) Connection: Actions should be taken to allow for higher availability and reliability of a Internet connection.
- (2) Mail Server: The mail server is frequently not available. Actions should be taken for a more reliable mail server.

The following recoveries should receive urgent attention:

- (1) Slow on signing a new subscriber up: Service level agreements should be set for signing subscribers up for Internet services. If service level is not attained reasons need to be communicated to the subscriber.
- (2) User settings: User settings must be accurately communicated to users. Pro-active communication is needed if setting should be changed.
- (3) Availability of a connection: When a connection is not available a reason must be given to the subscriber pro-actively.
- (4) Mail Server: Mail server problems must be communicated to subscribers.
- (5) DNS server: DNS server problems must be communicated to subscribers.
- (6) Security: When security problems occur it must be communicated pro-actively.
- (7) Pro-active information dissemination: Information must be disseminated pro-actively if a change in service is going to occur.

6.3.5. Project 5: Customer retention program

- (1) A means of measuring why customers leave. Intekom should implement a structured system for 'exit' interviews. A questionnaire should be compiled and responses obtained as part of the service cancellation process. Monthly reporting on these finding will assist in picking up trends and competitors strategies.
- (2) A planned effort to prevent customers from leaving once they express a desire to do so. Front line staff must get incentives for 'saving' customers that want to leave. The means must also be given to fron line staff to guarantee better service or upgrade customers to more valuable packages in order to retain customers.

6.4. Academic recommendations

- (1) A more reliable measure for core service measurement in the Internet industry must be developed.

- (2) The study should be duplicated in a similar industry, for example the cellular industry, where the link between relationship quality and customer retention can be tested with higher churn figures in relation to the sample.
- (3) Research should be done to determine the effect of price changes on the proposed model.
- (4) Potential users of SERVQUAL should be cautious. The reliability of the tangible construct is low. Although this is also a problem with the original instrument, it cannot be ignored. The whole issue of tangibles in an IS environment probably needs further investigation. It may be appropriate to split tangibles into two dimensions: appearance and hardware/software. Because hardware and software can have a significant impact, a measure of IS service quality possibly needs further questions to tap these dimensions (Pitt *et al.*, 1997).
- (5) The customer service life cycle, a variation on the customer resource life cycle, breaks down the service relationship with a customer into four major phases: requirements, acquisitions, stewardship, and retirement. It is highly likely users' expectations differ among these phases. Empathy might be the major need during requirements and reliability during stewardship. Thus, examining service quality by the customer service life cycle phase is an opportunity for future research (Pitt, Watson and Kavan, 1997).