

CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

In this final chapter research objectives are accomplished by making conclusions and recommendations based on the findings of data analyzed. Then the limitation of the research study is discussed and at last directions for further study is emphasized.

In prior to accomplishment of objectives there is a level of expected satisfaction or quality has to be determined for comparison. In our research survey we have assessed accounting software product quality, service quality, service provider image by obtaining 5 point likert scale, which has a range of 5 to 1. If perceived quality level or satisfaction level of an indicator is very high it is equal to 5. If perceived quality level or satisfaction level of an indicator is very low it is equal to 1. Here 5 and 1 are two different extremes, and most of the actual satisfaction levels obtained in the survey range from 2 to 4. Therefore if we interpret the points to match with the satisfaction / quality level;

1	-	Very Low
2	-	Low
3	-	Neutral
4	-	High
5	-	Very High

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The expected standard level may vary from 4 to 5 (i.e. 4.0, 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, and 5.0). Practically level 5 (Very high) cannot be set as an expected standard level, as it is an ideal situation. If level 4 (High) is assumed as expected standard level, then perceived satisfaction / quality level can be matched with 4 to identify the gap. Thus, with representation of expected standard level of 4. we can obtain minimum gaps.

6.1 Accomplishment of Research Objectives

6.1.1 Objective – 1

“Establish the current status of the accounting software packages based on customers’ feedback to product and service quality assessments”

In this research study on accounting software customer satisfaction in private sector organizations of Sri Lanka, our first objective is to establish the current status of the accounting software packages marketed in Sri Lankan private sector.

The conceptual model developed to assess the perceived accounting software customer satisfaction depends on three major concepts such as accounting software product quality, service quality and service provider image. The correlation, regression analysis findings presented in chapter 5 explicitly prove that accounting software customer satisfaction can be improved if the above concepts are addressed.

Let us discuss about these concepts individually.



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Accounting Software Product Quality

The accounting software product quality is measured by taking into consideration of four variables such as *modules*, *features*, *technology* and *customization capability*. Out of the four variables *technology* having the highest satisfaction level shows that accounting software packages are technologically appealing. That is most of the packages satisfying the requirements such as visual environment, relational database, multi user support, high data volume, minimized bugs, data access speed. The *modules* having lower satisfaction level than average shows the effectiveness of seven major modules have to be improved for better use. The findings prove that much attention to be given on inventory, order processing, and job costing modules. When looking into *features* of the packages, they have even lower satisfaction levels. It is identified there are twenty core features in an accounting software package along with other functionalities such as user friendliness, minimal paper works, MIS reporting, audit reporting. These components have to be addressed for feature level satisfaction. Customization *capability* is at the least customer satisfaction level. But it is important

to have a good level of adoptability to meet changing needs. As a whole the perceived product quality level is below the expected quality level, which needs more attention.

Accounting Software Service Quality

The accounting software service quality is measured by five variables of popular SERVQUAL methodology (Parasuraman et al., 1988). They are; tangibles, reliability, responsiveness, assurance and empathy. The *tangibles* has the lowest satisfaction level. This can be improved by employing adequate support staff, providing precise system documentations and user manuals to the accounting software customers. Next the *reliability* satisfaction level is also lower than service quality average. This implies accounting software service providers should deliver dependable, accurate, permanent, timely, solutions to the customers for better reliability. *Responsiveness*, *assurance*, and *empathy* measures are higher than service quality average. However these variables have small variations than *reliability*. Therefore these areas should also be improved for betterment of overall accounting software service quality. The perceived service quality level is also below the expected quality level.



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Accounting Software Service Provider Image

We have proved that service provider image is also a determining factor of accounting software customer satisfaction. This service provider image is constructed by the background / reputation, overall product quality and overall service quality offered. Already we have discussed about product and service qualities. The service provider background satisfaction level is higher than the average of service provider image. Still it has to be improved to buildup the image. The perceived service provide image level is below the expected level.

In conclusion the overall product quality, service quality, and service provider image of accounting software packages used by Sri Lankan private sector organizations are not up to the expected standards. For better growth of the accounting software service provider organizations, they should mainly focus on the product quality and service quality areas to compete in the market. This will largely contribute to their image.

6.1.2 Objective – 2

“Identifying the gap between expected and perceived customer satisfaction levels”

The second objective of our research study is to find the gap between perceived and expected accounting software customer satisfaction levels. From the summary of findings, a gap analysis table can be formulated. Here the perceived and expected levels of satisfaction of all the dependent and independent variables are compared and the percentage gap is calculated.

The gap analysis is shown in Table 6.1.

S/No.	Concepts & Variables	Satisfactory Level		Gap	Gap %
		Perceived	Expected		
1	Product Quality	3.40	4.00	0.60	15.00
1.1	Modules	3.39	4.00	0.61	15.25
1.2	Features	3.18	4.00	0.82	20.50
1.3	Technology	4.01	4.00	-0.01	-0.25
1.4	Customization Capability	3.04	4.00	0.96	24.00
2	Service Quality	3.19	4.00	0.81	20.25
2.1	Tangibles	2.92	4.00	1.08	27.00
2.2	Reliability	3.13	4.00	0.87	21.75
2.3	Responsiveness	3.23	4.00	0.77	19.25
2.4	Assurance	3.30	4.00	0.70	17.50
2.5	Empathy	3.38	4.00	0.62	15.50
3	Service Provider Image	3.35	4.00	0.65	16.25
3.1	Service Provider Background	3.45	4.00	0.55	13.75
3.2	Product Quality	3.40	4.00	0.60	15.00
3.3	Service Quality	3.19	4.00	0.81	20.25
4	Overall Customer Satisfaction	3.32	4.00	0.68	17.00

Table 6.1 Gap Analysis

This table shows 17% gap on overall accounting software customer satisfaction. This is due to 15% gap in product quality, 20.25% gap in service quality, and 16.25% gap in service provider image. Of these three determinant factors of customer satisfaction, the most crucial is service quality. The accounting software service providers have to minimize gaps in tangibles and reliability measures to improve service quality. Also minimizing feature gaps and customization capability gaps will improve product quality.

The impact of Customer Satisfaction Gap

There is at least 17% gap on accounting software customer satisfaction prevails in the private sector organizations of Sri Lanka. The gaps identified in each component that determine the accounting software customer satisfaction will obviously lead to negative impact on a service provider organization and its product reputation. As we discussed in the chapter 1, the accounting software industry have good openings in future. For grabbing the opportunities the service providers have to be very sophisticated in terms of software solutions and services. So it is important for them to eliminate the negative impressions on products and services and make a win-win situation in the business.

6.1.3 Objective – 3

“Recommend a strategic approach to make accounting software usage successful in the Sri Lankan Private Sector”

The final objective in our study is the recommendations to make the accounting software usage successful in Sri Lankan Private Sector. There will be recommendations for both demand and supply sides.

Recommendations for Demand Side

The growing trend in IT has made many organizations to computerize and acquire software applications based on their business requirements. Acquisition and implementation of accounting software is a key area of significance to many organizations today. When selecting a service provider for accounting software many issues have to be addressed. They are;

- Whether the service provider has a right accounting software product
 - Whether the core modules are incorporated in the package
 - Whether the key features are incorporated in the respective core modules
 - Whether the technology is appealing

- Whether the package has considerable level of adoptability for changing organizational needs
- Whether the service provider is capable of offering good service?
 - Whether adequate number of support staff strength is available
 - Whether support staff having good level of technical and domain knowledge
 - Whether they provide dependable, accurate, quality, and timely service solutions
 - Whether they are flexible and pay individualized attention
 - Whether their warranty, after sales service terms are good
 - Whether they can be accessible quickly in case of problem / breakdown
 - Whether they offer detailed documentation and user guide
- Whether the service provider is stable in the business
 - Whether they are financially stable in the business
 - Whether they have good experience in the accounting software business
 - Whether they have gained goodwill in the business

The above discussed issues have to be tested against a short listed accounting software suppliers and the right product and service provider has to be selected. Because implementation of accounting software is critical and time consuming process and a fairly big cost factor is involved, the organizations can't keep on changing their accounting software product and service provider by every year or two. At least a five year relationship between both parties is advisable for better return on investments.

Recommendations for Supply Side

The research findings prove that overall accounting software customer satisfaction level is poor. This can vary for individual firms. For a better place in the market, service providers should enhance the competencies to get the market opportunities.

The suggestions are;

- Accounting software service providers should make a self assessment on customer satisfaction levels by doing a small survey within their existing customer base to identify their stand. Based on their actual position they can plan out the areas of

improvements in accounting software product quality, service quality and image factors.

- Clear definition of products and services of the supplier have to be informed to the customers at the inception to minimize misunderstandings in future. This can be achieved through detailed proposals/brochures, initial presentations and group discussions
- Participation in trade shows to build up public relations and word of mouth publicity
- Conducting accounting software introduction and awareness programmes in outstations where potential customers exist, who could buy our solutions

6.2 Limitations of the Study

The limitation of this research study can be said as the omission of the cost component of accounting software products and services from the investigation. The reason for not taking up this is because the cost of the product or service will not directly impact the quality of the product or service. It is an external factor which stimulates quality expectations. For example, if the customer has spent high value for the accounting software package he / she may expect high level of product and service qualities, and vice-versa. Also the pricing determines the service provider to give priority to big customers than small, and provide solutions and services accordingly. Basically it has a psychological effect on both sides. The other reason is that in the accounting software market, products are of different price ranges from below Rs. 100,000 to above Rs. 1 Million. Due to these large cost variations it is difficult to generalize the cost variable in our research study.

6.3 Further Study

Our research study mainly focuses on making the accounting software usage successful by way of an investigation of customer satisfaction measures and improvements through product quality, service quality and service provider image assessments.


One area of further research could be the comparative study on off shore and domestic accounting software products. This will boost the local IT companies to identify their accounting software products' strengths and weaknesses and take corrective actions.


The second could be a research on development and marketing of open source accounting software in Sri Lanka. This may improve adoptability of the solutions to different customer requirements.



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ANNEXURE 1: RESEARCH QUESTIONNAIRE

Assessment of Accounting Software Customer Satisfaction in Private Sector Organizations of Sri Lanka
Survey Conducted as part of the Research module in the MBA programme at Moratuwa University.

Student Name: P. Ramesh

(The data gathered from this survey will be used only for academic purposes and will not be published in a manner which would identify the organization or the respondent)

Name of the organization:

1. Accounting Software Product Quality Assessment

1.1 Modules

The following seven modules are successfully implemented and fully satisfy the organizational requirements

5-Strongly Agree, 4-Agree, 3-Nuetral, 2-Disagree, 1-Strongly Disagree, 0-Not Applicable		Rating
1.1.1	General Ledger	
1.1.2	Accounts Receivable	
1.1.3	Accounts Payable	
1.1.4	Inventory	
1.1.5	Order Entry (Order Processing)	
1.1.6	Job Costing	
1.1.7	System Manager	

5-Strongly Agree, 4-Agree, 3-Nuetral, 2-Disagree, 1-Strongly Disagree		Rating
1.1.8	The integration and data flow between modules are satisfactory	

1.2 Features

The below listed features are highly effective and you can rely on them:

5-Strongly Agree, 4-Agree, 3-Nuetral, 2-Disagree, 1-Strongly Disagree, 0-Not applicable				
Feature	Rating	Feature	Rating	
1.2.1	Budgeting	1.2.11	Drill Down Facility	
1.2.2	Bank Reconciliation	1.2.12	Financial Reporting	
1.2.3	Multi Company	1.2.13	Ratio Analysis	
1.2.4	Multi Currency	1.2.14	Age-wise Analysis	
1.2.5	Fixed Assets	1.2.15	Quotations	
1.2.6	Multiple Warehouse	1.2.16	Security	
1.2.7	Manufacturing	1.2.17	Data Backup / Restore	
1.2.8	Bill of Materials	1.2.18	Help Menu	
1.2.9	Stock Valuation	1.2.19	Data Export	
1.2.10	Point of Sale	1.2.20	Data Import	

5-Strongly Agree, 4-Agree, 3-Nuetral, 2-Disagree, 1-Strongly Disagree		Rating
1.2.21	The system is very user friendly	
1.2.22	System has minimized the manual operations or leads to less paper works	
1.2.23	System supports in decision making (i.e. provide useful MIS reports)	
1.2.24	Reports disseminated from the system are appreciated and utilized by the auditors	

1.3 Technology (Part of Accounting Software Product Quality Assessment)

1.3.1	The Front End of the system is;	(1) Dos Based (2) Visual / Window Based
1.3.2	The Back End of the system is;	(1) RDBMS (2) Flat File (3) Proprietary Database
1.3.3	System has multi-user support;	(1) Yes (2) No

5-Strongly Agree, 4-Agree, 3-Nuetral, 2-Disagree, 1-Strongly Disagree		Rating
1.3.4	The system is capable of maintaining high volume of data / records	
1.3.5	The system is 100% bug free	
1.3.6	Financial statements and other reports can be accessed very quickly (speed)	

1.4 Customization Capability

5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree		Rating
1.4.1	Financial Statements can be customizable to the satisfactory level	
1.4.2	Reports can be customizable to the satisfactory level	
1.4.3	Forms can be customizable to the satisfactory level (Ex : invoice, PO)	
1.4.4	User/data entry screens can be customizable to the satisfactory level	
1.4.5	Database can be customizable to the satisfactory level	
1.4.6	System supports integration with 3 rd party applications (Excel/XML/Crystal Reports)	

2. Accounting Software Service Quality Assessment (Assume your service provider organization as XYZ.)

5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree		Rating
2.1	XYZ has employed adequate number of support staff	
2.2	XYZ's support staff have very good technical and domain knowledge competency	
2.3	You receive prompt service from XYZ's support staff	
2.4	XYZ is able to provide all the service solutions required by you (can depend)	
2.5	XYZ provides accurate solutions	
2.6	Quality of the solution provided by XYZ very good (do not offer ad-hoc solutions)	
2.7	XYZ delivers the promised service by agreed time frame	
2.8	If you encounter problems in the system, XYZ is always supportive	
2.9	XYZ is always willing to help you	
2.10	XYZ is very flexible and they are able to customize their services as per your needs	
2.11	XYZ understands your needs and pays individualized attention	
2.12	XYZ offers very good service guarantee (warranty period)	
2.13	XYZ offers very good after sales service	
2.14	Access to XYZ is quick (They operate from a convenient location)	
2.15	There is good communication between you and XYZ	
2.16	XYZ has offered precise system documentation	
2.17	XYZ has offered precise user manual	

3. Service Provider Image Assessment (Assume your service provider organization as XYZ.)

5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagree		Rating
3.1	XYZ is stable in the business	
3.2	XYZ has good experience in software business	
3.3	XYZ has gained good name in the business (Goodwill)	
3.4	XYZ has gained good word of mouth publicity	

ANNEXURE 2: PEARSON CORRELATION TABLE

Level of Significance (p) for Two-Tailed Test				
Df = N-2	0.1	0.05	0.02	0.01
1	0.988	0.997	0.9995	0.9999
2	0.900	0.950	0.980	0.990
3	0.805	0.878	0.934	0.959
4	0.729	0.811	0.882	0.917
5	0.669	0.754	0.833	0.874
6	0.622	0.707	0.789	0.834
7	0.582	0.666	0.750	0.798
8	0.549	0.632	0.716	0.765
9	0.521	0.602	0.685	0.735
10	0.497	0.576	0.658	0.708
11	0.476	0.553	0.634	0.684
12	0.458	0.532	0.612	0.661
13	0.441	0.514	0.592	0.641
14	0.426	0.497	0.574	0.623
15	0.412	0.482	0.558	0.606
16	0.400	0.468	0.542	0.590
17	0.389	0.456	0.528	0.575
18	0.378	0.444	0.516	0.561
19	0.369	0.433	0.503	0.549
20	0.360	0.423	0.492	0.537
21	0.352	0.413	0.482	0.526
22	0.344	0.404	0.472	0.515
23	0.337	0.396	0.462	0.505
24	0.330	0.388	0.453	0.496
25	0.323	0.381	0.445	0.487
26	0.317	0.374	0.437	0.479
27	0.311	0.367	0.430	0.471
28	0.306	0.361	0.423	0.463
29	0.301	0.355	0.416	0.456
30	0.296	0.349	0.409	0.449
35	0.275	0.325	0.381	0.418
40	0.257	0.304	0.358	0.393
45	0.243	0.288	0.338	0.372
50	0.231	0.273	0.322	0.354
60	0.211	0.250	0.295	0.325
70	0.195	0.232	0.274	0.303
80	0.183	0.217	0.256	0.283
90	0.173	0.205	0.242	0.267
100	0.164	0.195	0.230	0.254



ANNEXURE 3: STATEMENTS OF SERVQUAL INSTRUMENT

The 22 Statements of the SERVQUAL Instrument

Tangibles

- P1. XYZ has up-to-date equipment.
- P2. XYZ's physical facilities are visually appealing.
- P3. XYZ's employees are well dressed and appear neat.
- P4. The appearance of the physical facilities of XYZ is in keeping with the type of services provided.

Reliability

- P5. When XYZ promises to do something by a certain time, it does so.
- P6. When you have problems, XYZ is sympathetic and reassuring.
- P7. XYZ is dependable.
- P8. XYZ provides its services at the time it promises to do so.
- P9. XYZ keeps its records accurately.

Responsiveness

- P10. XYZ does not tell customers exactly when services will be performed. (-)
- P11. You do not receive prompt service from XYZ's employees. (-)
- P12. Employees of XYZ are not always willing to help customers. (-)
- P13. Employees of XYZ are too busy to respond to customer requests promptly. (-)

Assurance

- P14. You can trust employees of XYZ.
- P15. You feel safe in your transactions with XYZ's employees.
- P16. Employees of XYZ are polite.
- P17. Employees get adequate support from XYZ to do their jobs well.

Empathy

- P18. XYZ does not give you individual attention. (-)
- P19. Employees of XYZ do not give you personal attention. (-)
- P20. Employees of XYZ do not know what your needs are. (-)
- P21. XYZ does not have your best interests at heart. (-)
- P22. XYZ does not have operating hours convenient to all their customers. (-)

