

## 6.2 Recommendations

So to achieve the objectives of proper implementation and proper practice of IS Auditing in the Insurance industry following two guidelines have to be established.

### 1) A general guideline to implement Information Systems Auditing in an Insurance Organization in Sri Lanka

- a) Responsibility, Authority and Accountability of the IS Auditor has to be decided by the CEO or the Audit Committee or both of the insurance organization.
- b) In all matters related to IS Auditing the IS Auditor has to be independent from the audited from attitude and appearance in insurance organizations
- c) The IS Audit function has to be sufficiently independent from the area being audited to achieve it's audit objectives in insurance organizations
- d) All the IS Auditors in insurance organizations have to adhere to the code of professional ethics published by ISACA (USA) and should give due professional care for all his IS Audit assignments in insurance organizations
- e) IS Auditor in an insurance organization should be Competent, Skilful and Knowledgeable to handle IS Audit assignments relevant to the insurance organization and should always engage in continuous professional education
- f) It is the sole responsibility and the duty of the IS Auditor in an insurance organization to audit and report on areas mentioned in The general guideline to practice Information Systems Auditing in an Insurance Organization in Sri Lanka" which is given in the following recommendation in addition to assignments handover by the management of the insurance organization in time to time
- g) Please refer the Standards published by the Information Systems Audit and Control Association of USA (ISACA) for further reference.

## **2) A general guideline to practice Information Systems Auditing in an Insurance Organization in Sri Lanka**

It is the sole responsibility and the duty of the IS Auditor to audit and report on areas mentioned in “The general guideline to practice Information Systems Auditing in an Insurance Organization in Sri Lanka” in addition to assignments handover by the management of the organization in time to time

- a) Organization and Management Policies
- b) Segregation of duties in the IT function
- c) Logical Access Controls to IT resources
- d) Physical Access Controls to IT resources
- e) System Development Controls and Change Controls
- f) Business continuity
- g) Computer Operations
- h) User Management
- i) Communication
- j) System Soft Ware
- k) Database
- l) End User Computing
- m) Application Systems



## Appendix A

### A.1 An IT Level Evaluation questionnaire for Insurance Organizations in Sri Lanka

A Questionnaire to evaluate the existing Information Technology Level of Sri Lankan Insurance Organisations in order to identify the relevance of IS Auditing to the sector.

Target group: CIO's/IT Managers/IT staff in Sri Lankan Insurance Companies

I am a postgraduate student of Moratuwa University, engaged in a research study on "IT Readiness of Insurance Organisations in Sri Lanka for Information Systems Auditing" as a partial fulfillment of the Master of Business Administration (MBA in IT) degree program.

This questionnaire has been prepared to evaluate the existing Information Technology level of Sri Lankan Insurance Organisations, in order to identify the relevance of IS Auditing to the sector. You are kindly requested to answer all the relevant questions. The questions are of general nature and may not entail confidential information. However, you have the choice of not responding to any question, which you may consider that it contains confidential information.

The purpose of this research study is purely academic and will have no bearing on any organisations or persons. Your response and the name of the organization will be kept strictly confidential.

Thank you,

P. U. C. Pathinagoda  
(MBA in IT 2003/2005)

Name of the Company .....

**1. General Information of the organization (Please select the appropriate answer)**

1.1 Category of the insurance:

Life Insurance	
General Insurance	
Both	

1.2 No of years in business

More than 2 years	
More than 5 years	
More than 10 years	
More than 20 years	

**2. Internal IT level of the organization**

2.1 Who is/are taking information technology decisions in your organization (Please select the appropriate answer)

IT Committee (Including CEO & CIO)		A
CEO & CIO		B
Chief Executive Officer (CEO)		C
Chief Information Officer (CIO)		D
Any Other (Please specify)		E

2.2 Do you have separate department for handling & managing IT operations

Yes		A
No		E

**If “Yes”,**

2.2.1 No of staff members in IT department (Including executives & operational staff)

More than 40 people		A
More than 20 people		B
More than 10 people		C
More than 5 people		D
Less than 5 people		E

2.2.2 What are the different divisions within the IT department

1	Information Systems	
2	Data Processing	
3	Networking & Communication	
4	Information Systems Audit	
5	Any Other (Please Specify)	

(1,2,3,4) - **A** / (1,2,3) – **B** / (1,2) - **C** / Any One **D** / None **E**  
 In above case select your choice A, B, C, D or E

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

Our IT department:

2.2.2	Internally develops information systems/software for company usage	A B C D E
2.2.3	Buys third party systems/software and customize them	A B C D E
2.2.4	Outsource some of processes/activities of the company	A B C D E
2.2.5	Follows Standard procedures & practices to manage and maintain our systems	A B C D E
2.2.6	Our technical and management expertise is enough to satisfy company IT requirements	A B C D E
2.2.7	There is a sufficient linkage between IT department and the business departments	A B C D E
2.2.8	IT department is often seen as a completely separate entity	A B C D E

If “No”,

2.2.9 Who is handling IT operations in your organization

Outside IT company		E
Outsource all IT operations		E
Any other (Please specify)		E

2.3 Please assess the situation in your organization in terms of following statements. Indicate how far the situation described by each statement is true according to your organization. (Please encircle the most relevant answer).

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

In our organization:

<b>Process planning &amp; Support</b>		
2.3.1	IT streamlines business processes	A B C D E
2.3.2	IT strengthens strategic planning	A B C D E
2.3.3	IT improves management decision-making	A B C D E
2.3.4	IT improves internal communication & coordination	A B C D E
2.3.5	IT enables our company to adopt new organizational structures	A B C D E
<b>Operations Support</b>		
2.3.6	IT enhances operating flexibility	A B C D E
2.3.7	IT improves productivity of staff	A B C D E
2.3.8	IT enhances utilization of equipment	A B C D E
2.3.9	IT enhances cooperation among co-workers	A B C D E
2.3.10	IT enhances value of the insurance products by embedding IT in them	A B C D E
2.3.11	IT decreases cost of designing new products	A B C D E
2.3.12	IT enhances product quality	A B C D E
<b>Sales &amp; Marketing</b>		
2.3.13	IT enables the identification of the trends in insurance market	A B C D E
2.3.14	IT improves accuracy of sales forecasts	A B C D E
2.3.15	IT increases ability to anticipate customer needs	A B C D E
2.3.16	IT enables sales agents to increase sales per customer	A B C D E
2.3.17	IT improves promotional strategies by providing effective ways to reach customers	A B C D E

	<b>Total</b>
A	
B	
C	
D	
E	

Internal IT Level of the organization - .....



### 3. Networking & Communication

3.1 Does your organization has branches

Yes		
No		E

If "Yes"

3.2 How many branches in,

Colombo city	
Major cities	
Remote areas	
Overseas	

3.3 Interconnectivity of the branches and head office

All branches are interconnected online		A
Only branches which are in major cities are connected with head office		B
Any other (Please specify) – Connectivity available		C
No connectivity with head office		D



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3.4 Method of connectivity

Leased Line connection	
Dial up connection	
Satellite connection	
Radio Link	
Any other (Please specify)	

3.5 The type of the system you have with your branches

Total integrated solution		A
Centralized system		B
Mixed solution		C
Decentralized system		D
Any other (Please specify)		E

3.6 Networking & Communication facilities available in branch level

1	Internet facility	
2	E-mail facility	
3	Intranet access	
4	Telephone	
5	Fax	
6	Mail	

1,2,3,4,5,6 – **A**, 1,2,3,4 – **B**, 2,3,4 – **C**, 2,4 – **D**, Anything Else – **E**  
 In above case select your choice A, B, C, D or E

**If 'No'**

3.7 What is your idea about online connectivity with branches

That is very important for the success of the company & near future we will be connected online.	
That is very important for the success of the company & delay due to financial Considerations.	
That is not important for our business success & we can give good service without online connectivity	
Any other (please specify)	



	<b>Total</b>
A	
B	
C	
D	
E	

**Networking and the Communication Level of the organization - -----**



#### 4. Customer Relations & Information Technology

4.1 Do you have a company web site

Yes		A
No		E

**If 'Yes'**

4.2 Who has developed & maintained the web site

Company IT department		A
Combination of above two		B
Outside IT company		C

4.3 When did you build your web site?

On or before 1995		A
1996 - 2000		B
2001- 2003		C
After 2003		D



4.4 What are the basic contents of your web site

1	Company general information	
2	Available product information	
3	User help with FAQ option	
4	Policy information with payment history	
5	Claims information	
6	Any other (please specify)	

1,2,3,4,5 or more – **A**, 1,2,3,5 – **B**, 1,2,3 – **C**, Anything Else - **D**  
 In above case select your choice A, B, C, or D

4.5 How interactive is your web site

Dynamic		A
Frequently updated		B
Static		C
No idea		D

4.6 Is it possible to do an online need analysis with your web site

Yes		A
No		C

4.7 Can customer get a real-time quote from your web site

Yes		A
No		C

4.8 What are the other services do you provide for policyholders through company web site

1	On-line policy application	
2	Online payments & account access	
3	Online Agent referrals	
4	Electronic claim processing	
5	Any other (please specify)	

1,2,3,4 or more – **A**, 1,2,3 – **B**, 1,2 - **C**, Anything Else - **D**  
 In above case select your choice A, B, C, or D



4.9 How does your company handle customer inquires & complains

1	Through call center	
2	Through the web site	
3	Through branch level customer service executives	
4	Through sales agents	
5	By post	
6	Any other methods (please specify)	

1,2,3,4 or more – **A**, 1,2,3 – **B**, 1,2 - **C**, Anything Else - **D**  
 In above case select your choice A, B, C, or D

4.10 Does your organization provide any mobile commerce applications (M-Commerce) for your policyholders

Yes		A
No		C

**If 'Yes'**

4.11 what are these services

WAP services	
SMS	
Palm device applications	
Any other (please specify)	

Any 2 – A,    Any 1 – B            In above case select your choice A or B

**If "No"**

4.12 What is your idea about providing M-Commerce applications to Policyholders?

We are experimenting on it & implement near future	
That is not important as our customer base so little for M-Commerce applications	
That is important but investment is unaffordable	
Any other (Please specify)	

	<b>Total</b>
A	
B	
C	
D	
E	



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**IT Level in handling Customer relationship of the organization - -----**

**5. Business-to-Business Transactions & Information Technology**

5.1 Do you provide any insurance products or services with other non-insurance companies

Yes		A
No		E



5.2 If “Yes” what is your idea about integrated insurance products/services

They are profitable than providing company itself	
Company can not provide itself without integration	
This is the best way to face competition	
Any other (Please specify)	

5.3 How does your company transact with business partners

Through EDI (Electronic Data Interchange)	
Through Internet based EDI	
Telephone & Fax	
Through E-mail	
Any other (Please specify)	

4 or more methods – **A**, 3 methods – **B**, 2 methods – **C**, One method - **D**

In above case select your choice A, B, C, or D

	<b>Total</b>
A	
B	
C	
D	
E	



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**IT Level in handling B2B relationship of the organization - -----**

## 6. IT Infrastructure & Investment

Please assess the situation in your organization in terms of following statements. Indicate how far the situation described by each statement is true according to your organization. (Please encircle the most relevant answer).

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

6.1	Our insurance company uses modern hardware and software tools	A B C D E
6.2	We migrate to new technologies although current applications and tools can cater our company requirements	A B C D E
6.3	We use more sophisticated IT systems and tools than our competitive insurance companies	A B C D E
6.4	We follow modern technologies used by world leading insurance companies	A B C D E
6.5	Our organization possesses specialized software which are not still available to other organizations	A B C D E
6.6	Our organization possesses specialized hardware which are not still available to other organizations	A B C D E
6.7	The amount we invest in IT is increasing annually	A B C D E

	Total
A	
B	
C	
D	
E	



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**Assessment of IT infrastructure and IT investment of the organization - -----**

**7. In overall what's your grading for the Level of IT in your organization?  
(Hint – Please consider individual grading for Sections 2,3,4,5 & 6)**

- A – Very High**
- B – Moderately High**
- C – Reasonable**
- D – Moderately Low**
- E – Very Low**

## **A.2 An IS Audit Level Evaluation questionnaire for Insurance Organizations in Sri Lanka**

**A Questionnaire to evaluate the existing Information Systems Audit Level of Sri Lankan Insurance Organizations in order to identify the relevance of IS Auditing to the sector.**

Target group: CIO's/ISA Managers/ISA staff/Internal Audit Managers/Internal Audit staff in Sri Lankan Insurance Companies

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Thank you,

P. U. C. Pathinagoda  
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Name of the Company .....

**1. General Information of the organization (Please select the appropriate answer)**

1.1 Category of the insurance:

Life Insurance	
General Insurance	
Both	

1.2 No of years in business

More than 2 years	
More than 5 years	
More than 10 years	
More than 20 years	

**2. Internal IS Audit level of the organization**

2.1 Who is/are taking Information Systems Audit decisions in your organization (Please select the appropriate answer)

ISA Committee (Including CEO & CIO)		A
CEO & CIO		B
Chief Executive Officer (CEO)		C
Chief Information Officer (CIO)		D
Any Other (Please specify) or No one		E

2.2 Do you have separate department for handling & managing IS Audit operations

Yes		A
No		D

**If "Yes",**

2.2.1 No of staff members in IS Audit department (Including executives & operational staff)

More than 10 people		A
More than 5 people		B
Less than 5 people		C

2.2.2 What is the capacity of the Head of the ISA department?

Senior Manager Grade		A
Middle Level Manager Grade		B
Below the Middle Level Manager Grade		C

2.2.3 To whom the ISA department is reporting in your organization?

To the Audit Committee		A
To the CEO / Director		B
To a senior Manager (Ex. DyGM, AGM)		C

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

Our ISA or IT department:

2.2.4	Internally develops Information Systems Audit software for company usage	A B C D E
2.2.5	Bench mark IS Audit Standards, Procedures & Practices are followed by our ISA team	A B C D E
2.2.6	Our technical and management expertise is adequate to satisfy company ISA requirements	A B C D E
2.2.7	There is a sufficient linkage between ISA department and other business departments	A B C D E
2.2.8	ISA department is often seen as a completely separate entity	A B C D E

If "No",

2.2.9 Who is handling IS Audit operations in your organization

Internal Audit Department or an Outside consultancy firm		3D
No one		3E



2.3 Please assess the situation in your organization in terms of following statements. Indicate how far the situation described by each statement is true according to your organization. (Please encircle the most relevant answer).

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

In our organization:

<b>Process planning &amp; Support</b>		
2.3.1	ISA streamlines business processes	A B C D E
2.3.2	ISA strengthens strategic planning	A B C D E
2.3.3	ISA improves management decision-making	A B C D E
<b>Operations Support</b>		
2.3.4	ISA enhances quality of IT products and services	A B C D E
2.3.5	ISA improves productivity of IT staff	A B C D E
2.3.6	ISA enhances utilization of computer resources (H/W, S/W & L/W)	A B C D E
2.3.7	ISA decreases cost of designing new IT products	A B C D E
2.3.8	ISA enhances IT product quality	A B C D E

2.4 Technical Competence of IS Audit Staff in your organization

All of them have a Professional Qualification in ISA or an IT Qualification (At least a higher level Diploma)		A
Some of them have a Professional Qualification in ISA or an IT Qualification (At least a higher level Diploma)		B
None of them have a Professional Qualification in ISA or an IT Qualification (At least a higher level Diploma)		C

	<b>Total</b>
A	
B	
C	
D	
E	



**Internal IS Audit Level of the organization** - -----

### 3. IS Audit Infrastructure & Investment

Please assess the situation in your organization in terms of following statements. Indicate how far the situation described by each statement is true according to your organization. (Please encircle the most relevant answer).

Please Note:

A-Always true B-Frequently true C-Sometimes true D- Rarely true E-Never true

3.1	Our insurance company uses modern hardware and software tools for ISA	A B C D E
3.2	We migrate to new technologies although current applications and tools can cater our company requirements	A B C D E
3.3	We use more sophisticated IS Audit systems and tools than our competitive insurance companies	A B C D E
3.4	We follow modern technologies used by world leading insurance companies for IS Auditing	A B C D E
3.5	Our organization possesses specialized software which are not still available to other organizations for IS Auditing	A B C D E
3.6	Our organization possesses specialized hardware which are not still available to other organizations for ISA	A B C D E
3.7	The amount we invest in ISA is increasing annually	A B C D E

	<b>Total</b>
A	
B	
C	
D	
E	

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### Assessment of ISA infrastructure and investment of the organization in IS Audit

#### 4. Annual expenditure on IS Audit

4.1 According to your knowledge what is the annual percentage expenditure on ISA as a percentage of expenditure on IT in the same year?

20% - 25%	A
15% - 20%	B
10% - 15%	C
5% - 10%	D
Less than 5%	E

4.2 According your knowledge what is the annual percentage expenditure on ISA as percentage of total income of your organization in the same year

20% - 8%		A
8% - 6%		B
6% - 4%		C
4% - 2%		D
Less than 2%		E

	Total
A	
B	
C	
D	
E	

**Assessment of annual expenditure on IS Audit of the organization -----**

**5. Frequency of IS Audit assignments carried out in your organization**

Since we have a separate department to handle and manage ISA function, IS Audit assignments have been carried out regularly (Every branch / department is audited at least once a year)		A
Though we have a separate department to handle and manage ISA function, IS Audit assignments have not been carried out regularly (Every branch and department is not audited at least once a year)		B
Though we have a separate department to handle and manage ISA function, IS Audit assignments never have been carried out for some branches / departments (Some branches / departments never have been audited since their inception)		C
Though we don't have a separate department to handle and manage ISA function, IS Audit assignments have been carried out for some branches / departments time to time by internal auditors or by an out side firm		D
IS Audit assignments never have been carried out in our branches / departments		E

	<b>Total</b>
A	
B	
C	
D	
E	

**Assessment of the frequency of IS Audit assignments carried out in your organization -----**

**6. In overall what's your grading for the Level of IS auditing in your organization?  
(Hint – Please consider individual grading for Sections 2,3,4 & 5)**

- A – Very High**
- B – Moderately High**
- C – Reasonable**
- D – Moderately Low**
- E – Very Low**



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## Appendix B

### IT Level Assessment Information Tables

- Internal IT level Information table

**Microsoft Access - [Internal\_IT\_Info : Table]**

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Field Name	Data Type	Description
Serial Number	Number	Unique number is given for each & every Insurnace company
IT_Decision_Maker	Text	Who taking IT decisions in the company
Separate_IT_Dept_Status	Yes/No	Have separate IT dept
No_Of_IT_Staff	Number	No of staff members in the IT dept
IS_Division_Status	Yes/No	Availability of IS division
DP_Division_Status	Yes/No	Availability of data [rocessing division
Network_Division_Status	Yes/No	Availability of network division
ISA_Division_Status	Yes/No	Availability of IS audit division
Internal_System_Developmer	Text	Whether company develops their own systems
Buying_Third_Party_Systems	Text	Level of buying third party systems
Outsourcing	Text	Level of outsourcing systems
Follow_Standard_Procedures	Text	Level of following standards & procedures
Enough_Technical_Expertise	Text	Idea about technical expertise
Sufficient_Link_With_Busines	Text	Level of linkage between IT and other depts.
IT_Separate_Entity	Text	Idea about IT dept.
Who handles IT	Text	If no IT dept. who handles IT

- Process Planning & IT Information table

**Microsoft Access - [Process\_Planning\_And\_IT\_Info]**

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Field Name	Data Type	
Serial_Number	Number	Unique
Streamline_Business_Process	Text	
Strengthen_Strtegic_Planning	Text	
Improves_Decision_Making	Text	
Improves_Internal_Comm	Text	
Enables_Adopt_New_Structures	Text	

- Operations Support & IT Information table

Field Name	Data Type
Serial_Number	Number
Enhance_Flexibility	Text
Productivity_Of_Labour	Text
Equipment_Utilization	Text
Cooperation_Co_Workers	Text
Value_Of_Products	Text
Designing_Cost	Text
Enhance_Product_Quality	Text



- Marketing & IT Information table

Marketing And IT Info: Table		
	Field Name	Data Type
<input type="checkbox"/>	Serial_Number	Number
<input type="checkbox"/>	Trend_Identification	Text
<input type="checkbox"/>	Sales_Forecasts	Text
<input type="checkbox"/>	Anticipate_Customer_Needs	Text
<input type="checkbox"/>	Increase_Sales	Text
<input type="checkbox"/>	Promotional_Strategies	Text

- Networking & Communication Information table

Microsoft Access - [Networking_Communication_Info: Table]			
	Field Name	Data Type	
<input type="checkbox"/>	Serial_Number	Number	Unique number is given for each & every Insurr
<input type="checkbox"/>	No_Of_Colombo_Braches	Number	No of branches in the Colombo
<input type="checkbox"/>	No_Of_Remote_Branches	Number	No of branches outside Colombo
<input type="checkbox"/>	No_Of_Overseas_Branches	Number	No of overseas branches
<input type="checkbox"/>	Interconnectivity_Status	Text	Interconnectivity of head office and branches
<input type="checkbox"/>	Method_Of_Connectivity	Text	How they connected
<input type="checkbox"/>	System_Type	Text	Type of the system running on branches & HO
<input type="checkbox"/>	Branch_Internet_Facility	Yes/No	Availability of Internet at branch level
<input type="checkbox"/>	Branch_Email_Facility	Yes/No	Availability of email at branch level
<input type="checkbox"/>	Branch_Intranet_Access	Yes/No	Availability of Intranet at branch level
<input type="checkbox"/>	Branch_Tele_Fax	Yes/No	Availability of telephone & fax at branch level

- Customer Relations Information table

Microsoft Access - [Customer_Relations_Info: Table]			
	Field Name	Data Type	
<input type="checkbox"/>	Serial_Number	Number	Unique number is given for each & every Insurr
<input type="checkbox"/>	Call_Center_Status	Yes/No	Have a call center or not
<input type="checkbox"/>	Through_Web_Status	Yes/No	Provide service through website or not
<input type="checkbox"/>	Customer_Service_Executive	Yes/No	Provide service through executives or not
<input type="checkbox"/>	Through_Agent_Status	Yes/No	Provide service through agents or not
<input type="checkbox"/>	By_Post_Status	Yes/No	Provide service by post or not
<input type="checkbox"/>	M_Commerce_Status	Yes/No	Provide any m-commerce application or not
<input type="checkbox"/>	WAP_Service_Status	Yes/No	Availability of WAP services
<input type="checkbox"/>	SMS_Status	Yes/No	Availability of SMS services
<input type="checkbox"/>	Idea_Of_Mcommerce	Text	Idea about M-commerce applications



- **Website Information table**

Field Name	Data Type	Description
Serial_Number	Number	Unique number is given for each & every Insur
Developed_By	Text	Who has developed the website
Maintained_By	Text	Who is maintaining the website
Year_Started	Text	When website started
General_Information_Status	Yes/No	Availability of general information of the Insur
Product_Information_Status	Yes/No	Availability of product information
FAQ_Option	Yes/No	Availability of FAQ option
Policy_Information_Status	Yes/No	Availability of policy information and payment
Claims_Information_Status	Yes/No	Availability of claims information
Interactivity	Text	Static or Dynamic
Online_Need_Analysis_Status	Yes/No	Possibility of online need analysis
Online_Quotations_Status	Yes/No	Possibility of online quotations
Online_Application_Status	Yes/No	Possibility of online application for policy
Online_Claims_Processing	Yes/No	Ability of online claim processing
Online_Payment_Status	Yes/No	Ability of online payments
Online_Agent_Referrals	Yes/No	Ability of online agent referrals

- **B2B Information table**

**Microsoft Access - [B2B\_And\_IT\_Info : Table]**

File Edit View Insert Tools Window Help



Field Name	Data Type	Description
Serial_Number	Number	Unique number is given for each & every Insurance company
Integrated_Product_Status	Yes/No	Providing products with non-insurance companies
Idea_About_Integrated_Pro	Text	Idea about integrated insurance products and services
Link_Through_EDI	Yes/No	Transact with business partners through EDI
Link_Through_Internet_EDI	Yes/No	Transact with business partners through Internet EDI
Link_Through_Email	Yes/No	Transact with business partners through Email
Link_Through_Telephone	Yes/No	Transact with business partners through Telephone

- **IT Future Investment table**


**IT\_Future\_Investment\_Info : Table**

Field Name	Data Type	Description
Serial_Number	Number	Unique number is gi
Modern_Hardware_Software	Text	
Going_For_New_Technologie	Text	
More_Sophisticated_IT	Text	
Modern_Technologies	Text	
Posses_Specialized_Software	Text	
Posses_Specialized_Hardware	Text	
Annual_IT_Investment	Text	

## Appendix C

### References

#### Books and Journals

01. Warren, J. D. Jr., Edelson, L. W., and Parker X. L.,: Handbook of IT Auditing, PricewaterhouseCoopers L. L. P., and RIA Group W. G. & L. Boston, USA, 1999.
02. Caldwell, S. M., and Trasar, T. J.,: Certified Information Systems Audit Review Manual 2004, Information Systems Audit & Control Association, Illinois, USA, 2004.
03. Information Systems Audit Practicing Manual 2004, K. P. M. G. ford Rhodes Thornton and Company Ltd., Colombo, Sri Lanka, 2004.
04. COBIT 2004, Governance, Control and Audit for Information and Related Technology, Information Systems Audit and Control Association, Illinois, USA, 2004.
- 05 Sri Lanka Auditing Standards 2004, The Institute of Chartered Accountants of Sri Lanka, Colombo, Sri Lanka, 2004.  
 University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
www.lib.mrt.ac.lk
06. Baskerville, R., "Information Systems Security Design Methods: Implications for Information Systems Development," ACM Computing Surveys, Volume 25, Number 4, 1993, pp. 375-414.
07. Block, P., Stewardship: Choosing Service Over Self- Interest, Berrett-Koehler Publishers, San Francisco, CA, 1993.
08. Davis, G., and Olson, M., Management Information Systems: Conceptual Foundations, Structure and Development, McGraw-Hill, New York, NY, 1985.
09. Dorner, D., The Logic of Failure: Recognizing and Avoiding Error in Complex Situations, Addison-Wesley, Reading, MA, 1989.
10. Sauer, C., Why Information Systems Fail: A Case Study Approach, McGraw-Hill, London, UK, 1993.



11. Turban, Efraim, Lee, Jae, King, David and Chung, H.M. Electronic Commerce: A Managerial perspective, Delhi: Pearson Education (Singapore) Pte. Limited, 2003.
12. Balsley, Howard L. and Clover, Vernon T. Research for Business Decisions: Business Research Methods, Gorsuch Scarisbrick Pub, 1998
13. Sia, S. K., and Neo, B. S., "Reengineering Effectiveness and the Redesign of Organizational Control: A Case Study of the Inland Revenue Authority of Singapore," Journal of Management Information Systems, Volume 14, Number 1, 1997, pp. 69-92
14. Creswell, John W. Research Design: Qualitative and Quantitative Approaches, River-city-books, 1998
15. Simons, R., Levers of Control: How Managers Use Innovative Control Systems to Drive Strategic Renewal, Harvard Business School Press, Boston, 1995

#### Web sites

1. <http://www.ibsl.gov.lk>  University of Moratuwa, Sri Lanka  
Electronic Theses & Dissertations  
[www.lib.mrt.ac.lk](http://www.lib.mrt.ac.lk)
2. <http://www.isaca.org>
3. <http://www.kpmg.com>
4. <http://www.pwcglobal.com>
5. <http://www.ey.com/global/content.nsf/International/Home>
6. <http://www.srilankainsurance.com>
7. <http://www.ceylincolife.com>
8. <http://www.tradenetsl.lk/slecic>

