eT Guide - Assisting The eTransformation Journey: A Case Study Approach

Ana Hol, and Athula Ginige

Abstract **— eTransformation, the ability to select and implement appropriate Information and Communication Technologies (ICT) based on company's goals, objectives and operations is essential for the businesses today. This paper identifies how an online system - eTranformation Guide (eT Guide) allows companies especially Small to Medium Enterprises (SMEs) to track, measure and guide their eTransformation journey. In particular this paper outlines how three companies from different industry sectors namely: Manufacturing – Staircase Design, Service – Finance and Accounting Services and Tourism and Hospitality – Boat Cruise have travelled the eTransformation journey over the period of last year. Furthermore, the study highlights that eT Guide Recommendations are important indicators to the companies in terms of identifying into which Dimension they should be investing into next and what changes they should be making for the future benefits of their eTransformation journey. Moreover, the findings also benefit the research community that is investigating how best companies can undertake the eTransformation journey.**

Keywords **— eTransformation, eT Guide, ICT implementation, ICT selection, SMEs**

I. INTRODUCTION

Today, we realise that to survive in a globally competitive environment businesses are required to identify needs of the customers and select appropriate tools and technologies to help them remain competitive. The requirement of businesses to adapt to the changing needs is not only the effect of the changes Information era brought but evolutionary effect which has been evident for centuries. For example, in order to survive in the Agricultural era it was essential to make the appropriate use of the field, structure working times during the days and distribute jobs so that they can be completed throughout the year. Industrial era brought changes with the introductions of the machines, electricity and conveyer belt. It has also changed the field working patterns. Today, we see the requirement for change too but in a different way. It is now becoming more and

more apparent that successful businesses require implementations of appropriate Information and Communication Technologies (ICT) which in turn may require changes to business operations and even sometimes business strategies to assure ICT can bring appropriate benefits. Throughout the research that has been conducted up to now we observe the process of change through which companies make modifications to their business processes, operations and structures so that they can implement appropriate technologies. This process has been named eTransformation [1].

Therefore, to survive in the continuously changing environment businesses, particularly Small to Medium (SMEs) organisations are required to actively respond to the changes surrounding them, which in turn may require changes and selections and implementations of appropriate ICT.

The selection and implementation of ICT, however is not straight forward as it depends on a number of factors. Previous studies indicate that there are a number of models of organisational change and eTransformation, however that none of the available models explains the process in full [2]. The model that only explains IT Tools and Systems and the process through which a company makes staged improvements within this dimension is depicted within the eTransformation Road Map [3].
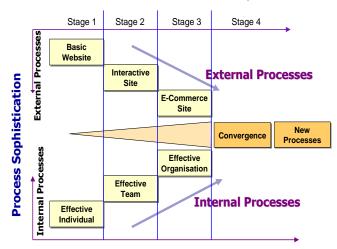

Fig. 1. Etransformation Road Map [3]

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The Road Map indicates that selection and implementation of required IT Tools and Systems is a staged process. The Road Map however, does not explain the effects ITC adoption, selection and implementation have on the other areas within the organisation. Previous Studies also indicate that eTransformation is a staged, multidimensional process [4-14]. However, Dimension seen as crucial for eTransformation is not only the Dimension of IT Tools and Systems but also Dimensions of Strategy, Structure and Tasks and Processes [2].Therefore, to implement appropriate technology it is essential to first identify company's Strategy – goals, objectives and vision. The understanding of what the company would like to achieve and what its plans are for the future, are likely indicators of what types of the technologies would be the most optimal for the company's successful operations.

Next, it is essential to identify the type of organisational Structure that would fit the organisation and its operations the best. This should take into the account decision making processes, departments, flexibility, company location and extent to which bureaucracy may play a role in company's leadership.

After Strategy and Structure have been identified it is crucial to define the most optimal Tasks and Processes that will allow the company to achieve its objectives. In addition,

TABLE I
ET DIMENSIONS AND CATEGORIES [2]

	Category	Stage 1	Stage 2	Stage 3	Stage 4
Strategy	The Environment	1.1 SMEs competitors awareness	1.2 Competitors – products & services	1.3 Matching competition	1.4 Be better then competition
	Plans & Visions	2.1 Meet essential deadlines	2.2 Meet all deadlines	2.3 Create improvements	2.4 Vision for the future
	Customers	3.1 SMEs Customers awareness	3.2 Customer requirements	3.3 SMEs marketing	3.4 SMEs learn from Systems
	Products & Services	4.1 Standards & certifications	4.2 Marketing strategies	4.3 Support & guarantee for customers	4.4 New improved products & services
	Employees	5.1 Knowledge requirements	5.2 Education and new ideas	5.3 Employees & Future	5.4 Innovation
	Goals	6.1 SMEs goals	6.2 Reality VS goals	6.3 Strategy VS goals	6.4 Skills & resources VS goals
Structure	Centralisation / Decentralisation	1.1 Decision – CEO	1.2 Decision- Managing director	1.3 Decision - Some employees	1.4 Decision- Whole organisation
	Functions / Divisions	2.1 Operations fixed	2.2 Diversification present	2.3 Operations can be changed if needed	2.4 SMEs adaptable to new circumstances
	Formalisation	3.1 Business functions / operations	3.2 SMEs Focus	3.3 Global needs	3.4 New ideas, innovation and future
Tasks and Processes	Nature of Tasks	1.1Streamlining	1.2 Automation	1.3 Creation of new tasks	1.4 Reassessment of existing tasks – fit
	From Tasks to Processes	2.1 Removal of repetitive tasks	2.2 Improvement in operations	2.3 Improvement in profitability	2.4 Reassessment of existing processes – fit
	Task & Process Streamlining	3.1 Avoid change	3.2 Change when essential	3.3 Change for benefits	3.4 Change for innovation
	Task & Process Integrations	4.1 Activities are independent	4.2 Activities are grouped – tasks	4.3 Activities form processes	4.4Activities across processes are integrated
IT Tools and Systems	IT Tools	1.1 Stand alone Tools	1.2 Networked – sections, whole integration not present	1.3 Networked-Partially integrated	1.4 Enterprise wide network – fully integrated
	Tool Users	2.1 Few employees	2.2 All departments not all employees	2.3 All employees	2.4 All employees & some stakeholders
	Internet	3.1 Searching	3.2 Customer Contacts	3.3 Advertising	3.4 External & business contacts
	Website	4.1 Static	4.2 Interactive	4.3 eCommerce	4.4 Convergence
	IT Support	5.1 Limited support (internally or externally)	5.2 Some support – usually ongoing	5.3 Basic IT Department	5.4IT Department fully operational
	IT Systems	6.1 Office Management – File management	6.2 Operational Systems – CRM, TPS	6.3 KMS, DSS – emerging	6.4 ERP, DSS, ESS
	Security	7.1 Antivirus and anti-spyware software	7.2 User access rights, authorisation and authentication, proxies and firewalls	7.3 Network traffic encryption (SSL, TLS)	7.4 System monitoring (intrusion detection, full system disaster recovery plan)

when identifying Tasks and Processes it is essential to review if some processes can be automated or streamlined to assure optimal operations. Only after these three Dimensions have been identified the company is ready to review its Information Technology (IT) Tools and Systems (Detailed explanation of each dimension is presented in Table 1.). Therefore, as depicted in Figure 2 a company should always review Dimensions in a set order as only this way it is possible to assure a set Strategy will be met and that the associated Structure, Tasks and Processes have been carefully outlined so that the technology implementation can bring positive outcomes.

For the companies to be able to do the comprehensive analysis of the four Dimensions namely: Strategy, Structure, Tasks and Processes and IT Tools and Systems they are usually required to invest into consulting services which are extremely expensive and hardly affordable by small organisations as they can rarely afford to take time off their day to day duties.

Therefore, to allow the companies to gain the benefits of the comprehensive study requirements and to be able to screen the Dimensions (Strategy, Structure, Tasks and Processes and IT Tools and Systems) themselves as well as carry out the eTransformation analysis AeIMS (Advance enterprise Information Management Systems) research group of the University of Western Sydney has developed an online eTransformation (eT Guide) that companies particularly Small to Medium Enterprises (SMEs) can use to track, measure and guide their eTransformation journey [13].

The eT Guide aims to enable eTransorming businesses and to allow them to get a better understanding of their organisations. Through series of questions an online system is able to identify current business Strategy and suggest required changes to it as well as it is able to assess business Structure, Tasks and Processes as well as give Recommendations for the future developments.

In addition, the power of the system is in its functionality and time stamps. It is possible for the organisation to use the system over a period of time, reflect to its current Dimensional stages and identify future progress. It is also possible to do longitudinal analysis with the data gathered so that managers can get a better perspective of the organisational growth.

Furthermore, managers and their associates can use the system at the times of their convenience. The system can be accessed from anywhere with the Internet connection and primary user can allocate unlimited number of additional users who can also then monitor companies progress.

Furthermore, all question answers for the dimensions are recorded in real time, so users can always go back to their

previous answers and are at any time allowed to continue previously commenced surveys.

Taking into the account that eTransformation is hugely important for the businesses today this paper aims to demonstrate how three SMEs approached eTransformation and used eT Guide to make decisions about their future business changes with the aim to reach their set goals and remain competitive in the turbulent markets of the Information era.
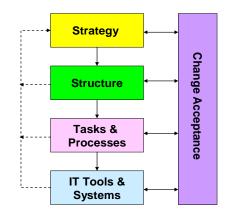

Fig. 2. Iterative Model of eTransformation [2]

To conduct the study and demonstrate the use and applicability of the eT Guide we have selected three case study companies, one from Manufacturing Sector - Staircase Design, one from Service sector - Finance and Accounting Services and one from Tourism and Hospitality Sector - Boat Cruise company. All three companies are SMEs (Small to Medium Enterprises) from Metropolitan Sydney Region, Australia. To assure company's data stays confidential company names have been changed.

Initially the three companies have been interviewed to get the holistic understanding of what their operations were and to what extent they use technology. Data from the interviews is summarised below.
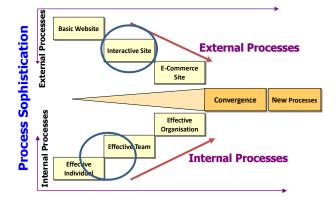
A.   Staircase Design

Staircase Design is a Manufacturing sector company. It has 54 employees and has been in business for 22 years. Its main operations focus on designing staircases for private houses or occasionally small businesses. Their primary clients are from the surrounding suburbs usually recommended by builders, carpenters or other tradesman.

Main decisions within the company are made by the CEO in a consultation with the other two senior staff members. There are five employees in total who work in the office mostly conducting admin tasks, marketing, finance and stock count. These employees are also in a contact with the clients. Measurements, material picking and selections for the customers are done by the two staff who also work in the office and four other staff members who occasionally assist the shop floor depending on how busy the company is. The rest of the employees mostly work at the shop floor however

in some instances they may be required to fill in other jobs such as deliveries.

The company has a computer at the shop floor and this computer keeps track of employee working hours as well as required material for the day. Other four computers are in the office. All computers are networked and data is mostly transferable from one to the other. The computer with the specialised staircase software however is the one that is only accessible by the CEO who is the main designer of the products. Finalised drawings are accessible as PDF files through shared networks. The company uses portable storage media for data storage and backup. The company website is up to date, interactive with inquiry form and catalogues.

To complete its daily tasks the company uses e-mail, fax and phone for basic communication with customers which includes inquiries, requirements gathering, quotes and business agreements.

The company uses MYOB application for financial record keeping; Outlook for customer data keeping and communication; PDF files user for records keeping; Excel spreadsheets for production and order tracking and Specialised staircase package for drawings and quoting.

eTransformation Road Map

Fig. 3. ICT development for Staircase Design

To get an understanding of the ICT development of the companies we used the eTransformation Road Map to depict the stage of the organisational IT Tools and Systems Development. From Figure 3 it can be seen that our initial investigation shows that the company has an Interactive site signified with online catalogues and that internal systems lay somewhere between effective Individuals and Effective Teams as only a certain group of the employees share data and they usually do it by exchanging data from the portable storage device. Internal systems within the company are networked which includes computers and printers. In addition, the computer located within the shop floor is also accessible via office computers.

B.   Finance and Accounting Services

Finance and Accounting Services is a Service based family run business with three employees – father, mother and their son. The company has been in business for seven years. Decisions are equally made by all three employees.

The company systems are networked in employees' homes (two homes – mother and father's home and son's) as well as the office which is located near parent's home. The company has an interactive website listing sample products and featuring an inquiry form. It has been designed by father, son and a family friend. Currently, son is looking after the site and is keeping it up to date.

To communicate with its customers the company uses e-mail, fax and phone. Initial inquiries are usually done via phone or e-mail. Bills and statements are usually exchanged via fax or occasionally via e-mail. Data collection and finance approvals are only done trough face to face interviews which may happen in the office or at the client's location.

For the approvals to be granted staff members are required to fill out forms and submit required data for each client. Data for each approving institution needs to be in a slightly different format which makes it difficult to standardise internal company documents. Files for the customers are kept as PDFs and are forwarded to the approving organisations as required.

The company uses MYOB application for financial record keeping; Outlook for customer data keeping; Specialised online bank forms for data collection and finance approvals and PDF files for past records storage.
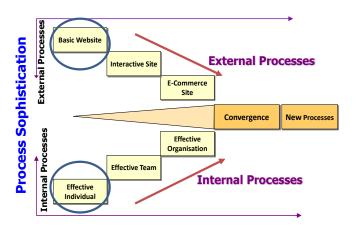
eTransformation Road Map

Fig. 4. ICT Development for Finance and accounting Services

Based on the data within Figure 4 it can be seen that the company has an interactive website with forms. It is also seen that the company has Effective Team as its all locations are networked and data is easily accessible. Electronic exchange of documents is very apparent internally within the company however not outside. When communicating with the approving organisations the company is required first to gather all data required for the customers and then fill out

forms needed by the financial institutions. There is no exchange of data between institutions.
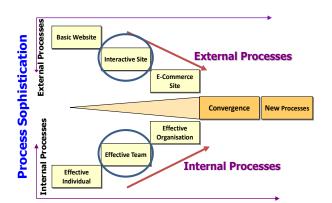
C. Cruise Company

The Cruise Company is in Tourism and Hospitality sector. The company has 20 employees and has been in business for 34 years. Primary decisions are made by family owners – mother, father and two children – who are all full time employees. There are six employees in the office and the rest work in the field or on the boat to assure each cruise runs smoothly. It is also essential to always have employees at the docks when boat is to arrive as well as to assure boats are cleaned, fused and equipped with safety equipment as well as the equipment required for the particular occasion before each trip.

The company uses e-mail, fax and phone for communication with customers and contractors which includes caterers and entertainers.

Moreover, the company uses MYOB application for financial record keeping, Outlook for customer data keeping; Excel spreadsheets for rostering and events planning and Word for typing documents.

In addition, the company has three networked computers out of which one is used for payments processing and is mostly kept offline as owners feel that this way their confidential data will be more secure. This data is also kept on the owner's flash drive. No other backup procedures are in place. Only primary decision makers are given access to electronic data. All other employees receive printed sheets each morning, which gives them an overview of the tasks that need to be completed and the tasks they are responsible for. Electronic data is never shared. Contractors may receive arrangements e-mails to arrange the meetings and finalise bills however their schedules and activity lists are always done on paper.

In addition, the company advertises its services via a simple brochure ware website and pamphlets that are given to the local accommodation places (motels and hotels) in the area.

eTransformation Road Map

Fig. 5. ICT Development for the Cruise Company

Based on the data gathered it can be seen from the figure above, that Cruise Company has a very basic brochure ware website and that it used IT tools only to compete individual tasks. Even the basic networking is not continuous as it is constantly interrupted due to false security perception. Electronic documents are never shared and only two copies of them are kept. All day to day activities are completed with paper sheets.

Following review of the interview data it was seen essential that the companies such as the three described above eTransform. This however was not easy as companies are often reluctant to change and are unwilling to experiment while conducting their main business operations. Therefore, researchers identified that in order for these companies to review their current operations they will give them access to the eTransformation Guide and will also follow up their status with the interview.

II. Use And Application Of The Etguide

Once the three above mentioned Case Study companies have been given the access to the eT Guide company's CEO or a General Manager had the online access to the system which they could access from any location with the Internet access with a dedicated user name and password and use the system to track measure and guide their eTransformation journey.

The system, eT Guide (see Figures 7 and 8), is composed of series of questions. The questions relate to the four Dimensions namely: Strategy, Structure, Tasks and Processes and IT Tools and Systems as well as their Categories shown in Figure 6.

Fig. 6. eTransformation Dimensions and their Categories

Therefore, as each Dimension is composed of a set of Categories a company is required to answer questions for each Category within each Dimension (for example there are seven Categories within IT Tools and Systems – Fig. 6 and Table 1). Moreover, it is worth noting that eTransformation is seen as an incremental staged journey [14] and therefore questions for each Category within a Dimension are split

across four developmental stages. For example, questions about the Website (Category) within the Dimension of IT Tools and Systems within the first stage of the development are about the Static Websites, then within the stage two about the Interactive Websites, stage three about eCommerce sites and stage four about Convergence and system integrations.

After questions for all Categories within a Dimension have been answered a company can review their developmental stage within that dimension and identify their Abilities – what they can do and their Recommendation – what they should improve in.

Furthermore, once the company has answered all of the set questions for each of the Dimension they can see in what Dimension they need to be investing into next based on the eTransfomation Position which is calculated through the questions answered and the developmental stages the company has reached within each of the eTransformation Dimensions.

Furthermore, the results given by the eT Guide allow the company to measure, track and guide their eTransformation journey.

Fig. 7. eT Guide [2]

Fig. 8. eT Guide [2]

With the system the eTransformation can be measured using the eT Position which identifies a percentage completion of each of the Dimensions across each of the four developmental stages. Furthermore, the eT Position can indicate where next developments should happen as progress through stages is incremental and should always happen first within Strategy, then Structure followed by Tasks and Processes and finally IT Tools and Systems.

Moreover, the eTransformation can be tracked using the eT History (Sample History is provided in Table 2) which only can be analysed if a company has been using the system for a prolonged period of time. Furthermore, the results generated by the eT Guide allow the company to identify the progress it has made thus far through the eT Report which provides in detail summary of the achievements the company has made as well as it outlines the Recommendations identifying eTransformation changes and investments the company should undertake next within each of the four eTransformation Dimensions. The Report can be generated from one dimension or it can be generated for a number of specified dimensions (ie. Structure and IT Tools and Systems or all four). Specific data generated through the use of the eT Guide for the three studied cases is presented in the next section.

TABLE II

User	Date	Dimension	Stage %	Go to Survey
aorganic	2008-11-18	Strategy	Stage 4 – 50%	Go
aorganic	2008-11-18	Structure	Stage 4 – 100%	Go
aorganic	2008-11-18	Tasks and Processes	Stage 3 – 25%	Go
aorganic	2008-11-18	IT Tools and Systems	Stage 3 – 42%	Go
aorganic	2008-10-08	Strategy	Stage 4 – 50%	Go
aorganic	2008-10-08	Structure	Stage 4 – 100%	Go
aorganic	2008-10-08	Tasks and Processes	Stage 3 – 25%	Go

SAMPLE ET HISTORY [2]

A. Staircase Design

Based on the data records within the system the following can be identified for the Staircase Design company:

eT Position

TABLE II
eT POSITION: STAIRCASE DESIGN

	Stage 1	Stage 2	Stage 3	Stage 4
Strategy	100%	83%	66%	50%
Structure	100%	100%	66%	33%
Tasks & Processes	50%	0%	0%	0%
IT Tools & Systems	71%	42%	14%	14%

From Table 3 above it can be noted that Strategy and Structure in Stage 1 have been completed. To be able to develop further within Stage 1 the company will need to invest into Tasks and Processes as this Dimension has only been completed 50 % and is not at all developed within the Stage 2. This also indicates that further improvements within IT Tools and System strongly depend on a careful identification and assessment of the Tasks and Processes Dimension.

Furthermore, based on the eT Report which outlines future Recommendations for the company it can be seen that Staircase Design should first of all review its Tasks and Processes Dimension and identify changes that need to happen next. In addition, it is important to take into the

account that the organisation is using old software and is predominantly relying on past knowledge and cumbersome management of production managing it with Excel spreadsheets. To be able to advance the company should identify how best their processes can be streamlined. Furthermore, the company states that currently they are not getting as many jobs as they used to. In order to get back into the market they should analyse their current marketing strategies and identify how they should be changed. The company could also explore possibilities of collaborating for example with builders, carpenters, tilers so that they can get more jobs. It is also worth noting that most of their jobs even now come as a result of recommendation from one of the above. Making this relationship more formal would in turn mean a construction of a more active job seeking possibilities. Such collaborations could also be formalised through common marketing strategies and or even in some instances machine, equipment sharing or bulk ordering of commonly required raw material goods.

Moreover, so that the company can easily adapt to the required change they should assess their workflow operations as well as their day to day operations to assure that the selected Tasks and Processes are those most suitable for the company goals to be reached. Day to day operations where a majority of tasks is written within the spreadsheets and where designs are only done by the CEO is very difficult and at times hardly managed. This also means that activities take time to be distributed as task wait for the office clerks.

Furthermore, to make appropriate investments in IT Tools and Systems Dimension the company should closely review its Stage 2 Strategy. This may involve a review of the current products and services including possible diversification or collaboration with business partners within or outside of the company's industry sector. In addition, this would help the company strengthen its goals and assure that they can gain the competitive advantage.

Trying only to find jobs where staircases are to be designed for the personal homes may not be the most optimal when an organisation has a capacity to design staircases for businesses as well. Job diversification and marketing changes may need to be looked into.

Only after Strategy, Structure and Tasks and Processes have been reviewed for Stages 1 and 2 the company can review IT Tools and Systems Dimension. Based on the Recommendations it seems that Staircase Design requires to have someone who will be able to look after their ICT as currently the company does not have a person on whom the company can rely on to get dedicated ICT assistance.

Furthermore, the company backups data on a portable storage device, which is then carried by employees from office to a remote location. The company should look into more optimal backup procedures and assurance that their data is secure. For remote access company may explore use of VPN or FTP. In addition, to be able to attract more customers it would be good if the company could develop online showcase of past implementations to allow customers to search for the required products easier.

Furthermore, in the future the company could consider implementation of Customer Relationship Management System to allow the company to keep track of their customers, as well as past and present orders. In addition, implementation of the Tracking System would allow the company to transfer data they currently keep in spreadsheets and easily monitor warehouse stock, orders, production and delivery which currently are not done effectively.

If the company is to take on board specified Recommendations they would be able to satisfy Stage 2 across all Dimensions and move closer to Stage 3. By analysing Stage 3, we can also see that once the company makes effective changes in Tasks and Processes they will be able to effectively move across other three Dimensions.

B. Finance and Accounting Services

Based on the data records within the system the following can be identified for the Finance and Accounting Services.
eT Position

TABLE IV
ET POSITION: FINANCE AND ACCOUNTING SERVICES

	Stage 1	Stage 2	Stage 3	Stage 4
Strategy	83%	66%	50%	16%
Structure	100%	33%	33%	33%
Tasks & Processes	75%	25%	25%	25%
IT Tools & Systems	57%	28%	0%	0%

From the Table 4 it can be seen that Finance and Accounting Services Company only has developed its Structure to 100% in Stage 1. This result should be taken with caution as changes in Strategy may force Structure to change. Therefore, to make the advancement in eTransformation journey the company should review its Strategy and assure that its goals and objectives are set. After this, the company should review its Structure, Tasks and Processes and finally IT Tools and Systems. In addition, data within the eT Position table identify that Structure and Tasks and Processes for Stages 2, 3 and even 4 have progressed along the same path, however that it is unlikely for them to progress any further before the company has reviewed its Strategy. Based on the Recommendations the company got within the eT Report it can be noted that company needs to review the services it offers, the business partners it collaborates with as well as review other financial services.

Furthermore, to be able to effectively work off site it is essential for the company's Strategy to reflect upon this business requirement and therefore for the changes to be reflected within business activities - Tasks and Processes. Currently, the company is required to duplicate the work because when they work off site they are unable to get live data from the network in time. To assure company is able to work effectively workflow procedures and current company objectives would need to be assessed and modified accordingly.

Moreover, to be able to give quick responses to the customers it is essential for the business operations to change so that service delivery can be streamlined and customers can get answers about their loans quicker.

The company should also try to explore extending its networking capabilities beyond homes and office and assure that their work activities can be fully carried from customer locations however this may require a review of online data sharing access as well as security measures required to access files from remote locations.

To assure company's Tasks and Processes are adequate it will be essential for the company to review them. The review of Tasks and Business Processes should encompass assessment of the workflows as well as external operations the company relies on such as formats of data collection, editing and retrieval for various banks and other financial institutions as well as assurance that the company is able to respond to the customers inquiries in a timely manner.
Finally, after the review of Strategy, Structure and Tasks and Processes has been conducted Recommendations for IT Tools and Systems Dimension can be given.

Firstly, it is important that the company has someone who will look after their ICT holistically and assure appropriate security measures are implemented as financial data the company deals with is highly confidential. Secondly, it is crucial for the networking capabilities to be extended so that work can be performed from the locations other than homes and office and finally it is crucial for the systems to be centrally monitored so that data for the customers from different financial institutions can be collated through the same input fields. After Strategy has been carefully assessed for Stages 1 and 2 changes in other dimensions will be able to follow.

C. Cruise Company

Based on the data records within the system the following can be identified for the Cruise Company:
As per the eT Position (Table 5) of the Cruise Company it can be seen that the company has achieved 100% in Strategy and Structure for Stage 1. This identifies that next investment should happen within Tasks and Processes in Stage 1. To further indentify other changes that need to

happen for the company to effectively implement required ICT it is crucial to note that Strategy within Stage 2 has only been completed 66%. Therefore, the company should imperatively review its Strategy before they are to undertake further investments within Tasks and Processes. Stagnation of improvement for Structure at 66% within Stages 3 and 4 and 25% for Tasks and Processes also indicate that for the change to happen and for it to be effective the company would essentially need to review its Strategy before it is to undertake any further changes.

eT Position

TABLE V
ET POSITION: CRUISE COMPANY

	Stage 1	Stage 2	Stage 3	Stage 4
Strategy	100%	66%	66%	33%
Structure	100%	100%	66%	66%
Tasks & Processes	75%	50%	25%	25%
IT Tools & Systems	71%	42%	28%	14%

As per the eT Report and the outlined Recommendations highlight that it is important for the company to reviews its Strategy first. This would mean that the organisation should assess its goals and visions carefully. For example, the company may like to review whether they would like to change their operations and possibly introduce daily or at least weekly trips rather than purely rely on group and functions booking. To be able to survive in the Information age it is also crucial to identify appropriate marketing strategies and potentially join into collaborative ventures with other organisation. For example the company could establish links with accommodation places in the area, tourist guides and tourist agencies to increase its customer base.

Furthermore, to be able to deal with a larger customer base it would be essential to identify changes that would need to be undertaken in order to streamline business processes and make them smoother. For example, inquiries and quotes should not only be handled by the CEO. Having a system where a number of people could have the access to the quote generation data would streamline planning and quotes generation. This would in turn allow the company to select IT Tools and Systems required for such operations which would also help the business to achieve required outcomes. Furthermore, the business should not run purely on the basis of printed sheets that have been prepared for the day. Data should be at least e-mailed to all involved. It would also be important to have a central hub where information about the trips can be stored so that all staff has an understanding of what activities are set to take place and what they are responsible for. This would also allow for any staff changes to be made quickly which would in turn open more possibilities. In addition, customer data is a valuable

resources and should be kept in a more manageable format that the Excel sheets. If a CRM is used the company can learn based on their past experiences. Furthermore, they can also use their existing customer base to strengthen existing relationships, invite them to promotional tours and consequently expend their business.

III. RECOMMENDATIONS AND FUTURE OF ETRANSFORMATION

Based on the Recommendations given by the eT Guide each company has attempted to make required changes in order to undertake eTransformation.

One year after the initial interviews follow up interviews were conducted. During this time it was identified that three Case study companies approached the eTransformation in a slightly different way. The section below specifies changes each of the three companies made or at least identify as important for the future of their eTransformation.

A. Staircase Design

The Staircase Design company has identified that in order to implement appropriate ICT some of their Tasks and Processes would need to be modified. In particular, they have identified that it would be beneficial if they could keep customer data in a more manageable form than they do now, where they could link staircase proposals and actual drawings in a PDF format to customer details and keep data in a one place. The company feels that this would allow them to easier manipulate drawings, adjust them to the customer requirements and quicker develop final quotes and start working on the jobs. This would also mean that anyone within the office could easily communicate with the customer about their designs. They would also be able to record notes and identify customer requirements which would in turn increase customer satisfaction and would improve response time.

Furthermore, the company has identified that it would be good if they could implement a Tracking System that would allow them to track warehouse storage space and incoming and outgoing raw material goods as well as staircase developments and installations. At present this is done by physically visiting the warehouse and writing down the stock number which in turn means that company records are not precise which occasionally creates delays in production and deliveries.

In addition, the company has identified that it would be essential for them to update their website as their current website only reflects their operations from early 2000s. The updates would include sample videos, showcases of staircase installations, and staircase building tools so that customer can explore the product and identify their requirements easier.

The company has also identified future collaboration channels with builders, plumbers and other tradesman's in the area. Currently, this working relationship is relatively casual however has already resulted in new jobs within the new development site in the nearby area.

B. Finance and Accounting Services

The Finance and Accounting Services company has identified that in order to survive in the Information era it would be essential for them to review the way the company deals with its customers. In particular, the company has identified that Outlook alone is not sufficient for them to be able to keep customer data in the effective manner as for each customer they often have over ten to fifteen different PDF files. To be able to do this, the company has recognised that they should invest into a Customer Records Management system that will allow them to keep records for each customer and record all conversations they had with each customer in a chronological order including phone calls, e-mails as well as meetings. Furthermore, the company has identified that it would be crucially important for them to market certain services to particular niche markets and also have the ability to contact individual customers when needed. In addition, the company has also identified that it would be beneficial if they could track communication they have with the customers, business partners and the other financial institutions so that by a click of the button they can find all correspondence they had with each stakeholder. According to the company it appears that this would help speed up operations as well as improve decision making.

They have also identified that more personalised services in their industry are highly valued and they have also expressed interest to be involved in a prototype development of the CRM mass e-mailing system that would allow them to select customers with a particular interest and e-mail them information based on their preferences.

Furthermore, the company has realised that various banks and financial institutions keep financial data and forms in different formats however that the data in its essence is identical. Consequently, the company has realised that it would help if they had a system which would allow them to input data into the required fields just by selecting functions which are already set within the company systems. This however may require further explorations and discussions with the industry sectors where providers such as financial Accounting Service can together with the industry come to the agreement regarding the application that could be used to solve the current issue.

C. Cruises Company

After the Cruise Company has received the Recommendations via the eT Guide the company has identified that it should seek better ways on how to manage customer communication and generation of quotes. Furthermore, the company also identified that the spreadsheets they currently use are effective, however that in order for the operations to happen quicker and smoother it

would be essential that the files can be accessed by multiple users at the same time and that data input can happen online. In addition, the company has also identified that in order for them to stay in business and retain their existing customers and encourage them to come and visit the company again it would be good if the company could have a Customer Relationship Management system which would allow them to enter data about the customers, add documentation, identify requirements as well as later on be able to group customers and send them promotional material.

In addition, the company has also identified that it would be beneficial if they could mass e-mail customers and inform them about the upcoming events. In particular the company has noted that they would like to offer past customers cruise birthday celebrations for a discounted price, they have also identified that it is important to keep in touch with tour organizers who plan large cruises as well as wedding planners and corporate party organizers as well as businesses who have in past been their guest. In addition, they have also decided that in the instances where the boat is booked for a leisure cruise and it is not filled to its capacity they will offer past members thirty percent discount and will encourage them to join the cruise.

Moreover, to be able to manage quotes the company has identified that it would be beneficial if they could have an electronic package that could allow them to plan cruises as well as organize staff, catering, docking and entertainment which would in turn allow the company to have a more holistic view of the day to day operations.

IV. BEYOND THE ET GUIDE

Based on the eT Guide outputs both in terms of company Abilities as well as the Recommendations as company's future requirements Researchers at the University of Western Sydney have identified that with the eT Guide companies can now guide, track and measure their eTransformation journey. They have also identified that eT Guide outputs can also help ICT practitioners, contractors or business analysts to quicker identify problem areas and pinpoint the most optimal business solutions.

Moreover, the Researchers identify that eT Guide may have its further potentials in its ability to easily identify problem areas as well as point potential solutions which could potentially be implemented by the organizations instantaneously.

This further initiated thoughts of the potentials that the Researchers could develop associated systems to the eT Guide that seem to be of a crucial importance for the Small to Medium companies. Such systems could be embedded within the services offered by the eT Guide and suggested to the companies when the eT Guide identifies a need for one of such systems.

Based on the data collected via the eT Guide so far the Researchers have identified needs for a particular set of systems. Therefore, to streamline eTransformation process and assist companies under current development Researchers have commenced developments of the following systems: Customer Relationship Management System (CRM) for Small to Medium Enterprise – where businesses can easily store data about their customers, contact details, transcripts and logs of phone conversations, meetings, staff responsible for particular customers as well as keep records of past purchases, current enquiries and a list of customer associated documents; Other system is the Mass e-mailing Tool. The tool is originally embedded within the CRM, however if needed can be used as a standalone package. The tool allows its users to make personalized mass e-mails, to extract recipients based on a particular grouped criteria, such as a company may like to e-mail customers who have purchased a particular product or they may like to give customers discounts for the purchases made on their birthdays.

The third system under the development is: Spreadsheets on the Web. This system allows its users to manipulate spreadsheet data online with multiple user accesses, something that currently existing Google documents do not allow. The system allows users at the remote locations to work on the same spreadsheet files simultaneously. Data into the cells is entered through a system by a cell locking algorithm meaning that each user occupies a cell at the time. While data is being entered by one user into the cell the cell is at that time locked for the other user and the other user is unable to make changes to that cell and the cells requiring data from the cell being modified. This project is in its early stages of its development.

It is believed that new systems, similar to those described above, will allow companies to achieve their business requirements smoother. As soon as the companies are to realize that they need one of the above mentioned systems or are given a recommendation by the eT Guide to try one of the available systems the company will not necessarily need to hire IT consultants in order to implement a new solution but will be able to set it up on its own and use it instantaneously. Furthermore, the advantage of using such custom based applications is that the designed systems will be modeled taking into the account business requirements, predominately requirements of Small to Medium Enterprises and environmental demands including demands from customers, business partners, industry sectors and government organizations.

Furthermore, the eT Guide users are to play a vital role when it comes to eT Guide future developments. The higher the number of the eT Guide users the easier small business requirements will be gathered and required systems developed. This means that Researchers will be taking into

the account systems Recommendations for the businesses and will based on the system suggestions be making future research implementations and system developments. In addition, this would also enable the eT Guide community to develop quicker and for its businesses to have a variety of tools that they can use so that they can continue caring important business activities within the Information era.

V. CONCLUSIONS

In summary, it can be seen that without the eT Guide companies, especially Small to Medium enterprises may struggle to guide, track and measure their eTransformation journey due to their busy schedule and at times luck of ICT budget.

The eT Guide acts as the consultant and is allowing busy company owners and managers to identify their most optimum eTransformation directions based on the answered questions for four important eTransformation Dimensions. As identified, eTransformation is not just pure selection and implementation of IT Tools and System but also the identification of company's goals and objectives – The Strategy; company's Structure and decision making as well as identification, streamlining and automation of companies Tasks and Processes without which companies are unable to deliver required services or produce needed products.

The eT Guide assesses the company holistically. It takes into the account current operations, activities, technologies as well as company goals, visions and objectives. Moreover, the system also takes into the account that an organization does not exist in the isolation of the industry sector, competitors as well as well agile customers and business partners.

In addition, the eT Guide allows the companies to observe their growth and their current status through Abilities as well guide their developments while being assisted with given Recommendations with the aim to help companies make the most appropriate decisions. We also see that with the use of the eT Guide companies are able to explore future possibilities and much easier identify how some of their company's processes can be modified and linked to required

ICT resources so that jobs can be completed much swifter and smoother and that the customers' demands can be met more effectively in time. In the future, it is expected that the eT Guide will also be associated to the packages such as Spreadsheets on the Web and CRM for Small to Medium businesses which will make the eTransformation journey with the eT Guide even more fulfilling.

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