

# CT3433: Organisational Innovation

# Assignment

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## Instructions

This assignment will take you inside an existing organization and show you how to create a dynamic and living innovation plan. You can choose the organization. It could be where you work, have worked, or would like to work in the future. It may also be any department e.g., manufacturing, computer services, product design, etc. At the end of the assignment, you will have a Research Report (read: Innovation Plan) that when implemented will create new products, processes or services that add value for your customers.

Begin by first reviewing the innovation plan in the Case Study in the first half of this document. Consider completing the activities in the Case Study. These activities are for practice only and are not assessed. You can then develop an Innovation Plan for your own organisation. Follow the instructions in the second half of the document. Document your plan using the excel **template.xlsx** provided. Your assessment will be based on the **Report Rubric.docx**. Both are available in the Files>Assignments folder in the Canvas LMS.

# Case Study

## SwitchIt Manufacturing

*(An incomplete Innovation plan)*

### Background

SwitchIt Manufacturing is an Irish manufacturing company and part of the SwitchIt corporation in the U.S.A. SwitchIT manufactures electrical light switches. Marketing is the responsibility of a sister organization based on Brussels and Design is currently concentrated in the U.S.A. There are currently 200 employees at the Irish facility. Over the last 15 years the company has built up a mature manufacturing facility for the European and Asian markets. The company is responsible for generating a turnover of €500m. This year the company is investing €12m in process IT Strategy s, cost improvements, new technology, information systems development and capacity adjustments. A special budget of €1.4m has also been allocated to establish a new design department. The plan below outlines the status of goals and actions for development of the manufacturing facilities over the next three years.

### Activities

You have been hired by SwitchIT in Ireland to establish a design department. You have design facilities and have hired one other designer. The managing director has asked that you merge the goals and actions for your new design activity into the plan below. Later, after you have become established you may create your own separate plan for design activities.



Switchit manufactures a range of ‘wall switches’. The manufacturing facility has a range of machining and assembly stations that produce the switches in batches according to design specifications. Your role is to extend the product range at SwitchIt by initially utilizing the existing manufacturing processes and skill sets of individuals involved.

### Team

The initial IT Strategy plan illustrated below was developed by a senior team chaired by the general manager. This team initially met for one week off-site to generate the goals of the organisation. The team now meets weekly on Fridays for one hour to review the status of the company’s goals, and the status of various actions such as projects and new ideas. This meeting often focuses exclusively on ‘exceptions’ (i.e. activities that are showing a ‘red’ status signal). In addition to the members shown in the table below other members of the company are invited to attend as required.

Individuals	
Name	Job Title
Andrew Kelly	IT Analyst
Breda Mooney	HR Manager
Danny Mulryan	General Manager
David Noone	Engineering Manager
Gary O'Halloran	Training Manager
James Fogarty	Purchasing Manager
John Sheehan	Quality Coordinator
Mary Roche	Finance Controller
Michael Clark	Manufacturing Supervisor
Stewart O'Neill	Materials Manager
...	...

### Activity

Add your name and job title as well as the individual you hired to the table below. A spreadsheet with all of the tables in the case study is available online for editing.

## Mission

The mission of SwitchIt is the 'Efficient Manufacture of innovatively produced switchgear solutions'. SwitchIt is focused on manufacturing switch gear at low cost, high productivity and high quality. We are also focused on continuously improving our manufacturing processes. Our main contribution to operating revenue and profit is through lowering overall total cost of production.

### Activity

Propose a change to the mission statement that incorporates the fact that there is a new design department at SwitchIt and a new set of design activities.

## Statements

As part of the goal generation exercise a number of statements were initially noted. These include statements of mission and core competencies but also of weaknesses and strengths. The table below illustrates a number of these statements including their status.

Statements		
Group	Title	Status
Mission	Efficient manufacture of innovatively produced switchgear solutions	...
Competencies	Machinists and Machining expertise	...
Competencies	Low tax location and ease fo market access	...
Strengths	Global Organisation	😊
Strengths	World Class Manufacturing Facility	😊
Strengths	Skilled Workforce	😊
Strengths	Low Employee Turnover	😊
Weaknesses	High Insurance premium	😞
Weaknesses	Lack of inter department communication	😞
Weaknesses	Frequent product returns due to quality issues	😞
Threats	Increasing Manufacturing Costs	😞
Threats	Competition from new low cost entrants	😞
Threats	Lack of capital for new projects	😞
Threats	Global downturn continueing	😞
Opportunities	New government design grants	😊
Opportunities	E-Commerce Opportunities	😊
Opportunities	University Graduates	😊
...	...	...

The principle weakness is the high rate of product returns through the warranty process due to process related quality issues. A number of projects are currently underway to replace some old machines and improve operator training. One of the strengths noted at the beginning of the planning period that the plants status as a 'world class manufacturing' facility. It is currently felt by some managers that this status is under threat from recent results. 'Increasing manufacturing costs' was initially identified as a potential threat – with rising inflation this now appears to becoming a reality. Finally, one of the opportunities identified at the beginning of the planning period was the availability of 'University graduates'. Due to a number of factors including high cost of living this opportunity may be becoming a threat.

### **Activity**

*Add new statements that incorporate the views and analysis of your design department. Visit the internet and see if there are any new technologies being developed that may offer new opportunities or products being developed by potential competitors that may constitute a threat. Remember: this is an exercise. If you cannot find potential statements through your research – make them up in your head.*

## **Requirements**

The company has a number of key stakeholders. Preliminary requirements from these stakeholders are illustrated in the table below. One of our principle stakeholders is our parent company who is demanding a €300k cost improvement in the current year. Another key stakeholder, Customers, is requiring improved lead times, greater quality and reliability of our products. They are also requiring greater flexibility in the event of order changes with less 'red tape' in changing order quantities and due dates.

<b>Requirements</b>			
<b>Group</b>	<b>Title</b>	<b>Responsible</b>	<b>Status</b>
Parent	Improve Cost Structure (300k)	Mary Roche	😊
Parent	Greater Utilisation of Assets	Danny Mulryan	😞
Parent	Pilot Corporate ERP System	Andrew Kelly	😊
Customers	Reduced Lead Times	Michael Clark	😊
Customers	Increased Flexibility	Michael Clark	😊
Customers	Greater Quality and Reliability	Stewart O'Neill	😊
Employees	Opportunity to Learn on the Job	Gary O'Halloran	😊
Employees	Greater discretion and responsibility	Breda Mooney	😞
Regulations	Health and Safety Compliance	Luke Davenport	😊
Regulations	Environmental Compliance	David Noone	😊
Community	Local Sponsorship	Breda Mooney	😊
Suppliers	Faster Payment Times	Stewart O'Neill	😊
Suppliers	More Accurate Forecasting	Stewart O'Neill	😊
...	...	...	...

Other stakeholders not illustrated above include the Design department in the U.S.A and marketing function in Brussels. The Warranty department has also identified a number of requirements in particular low reliability on some products.

### **Activity**

*Add new requirements to this list. What requirements might your parent organization have on your design activity? What new requirements might your customers have on your product portfolio?*

## **Objectives**

The strategic plan adopted by the company at the beginning of the planning period is illustrated in part in the table below. The main decisions for change over the next three years have been divided into eight strategic thrusts (or groups): Capacity; Responsiveness; Organization; Workforce; Supplier Chain; Technology; Information; and Quality.

Objectives			
Group	Title	Responsible	Status
Capacity	Employ low risk strategy towards capacity expansion	Mary Roche	😊
Capacity	Improve capacity analysis techniques	David Noone	😞
Capacity	Improve man-power flexibility towards capacity changes	Michael Clark	😊
Capacity	Explore Make vs Buy Opportunities	Stewart O'Neill	😞
Responsiveness	Collaborate on development of more accurate forecasts	Danny Mulryan	😊
Responsiveness	Explore manufacture-to-order processes	Michael Clark	😞
Responsiveness	Reduce order delivery times	Stewart O'Neill	😊
Responsiveness	Improve dealer and supplier partnerships	Stewart O'Neill	😞
Organization	Migrate towards flatter and leaner organisation	Danny Mulryan	😊
...	...	...	...

### Activity

*Add new objectives to this list that incorporate your design departments objectives. Do you have objectives around new product development? Or perhaps improving reliability of existing products? Or perhaps lowering costs of materials and assembly of existing products?*

## Indicators

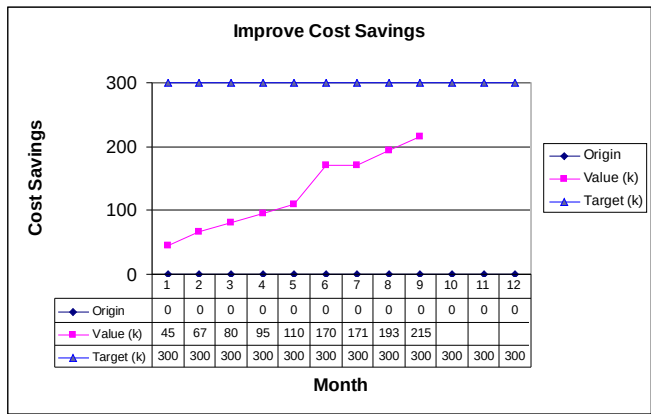
The status of key performance indicators is illustrated in the table below. Defects per Unit continues to be a major concern due to a number of old machines and practices among some employees. John Sheehan Quality Coordinator, is satisfied that machine age and operator training are the main causes of low quality.

Indicators					
Title	Unit	Current	Target	Responsible	Status
Improve Cost Savings	\$	120k	300k	Mary Roche	😊
Increase Delivery Performance	%	89%	95%	Michael Clark	😞
Reduce Absenteeism	days/month	45	30	Breda Mooney	😊
Defects per Unit	defects/unit	23	10	John Sheehan	😞
Reduce Warranty per 1000 units per month	\$	23k	20k	David Noone	😊
Reduce Manufacturing Lead Time	days	5	4.5	Danny Mulryan	😞
...	...	...	...	...	...

### Activity

*Add one or two new indicators to this table that measure the activities of your design department. Remember: this is an exercise – make it up in your head.*

Cost savings of 300k for the current year are progressing well. A chart of status for ‘Improve Cost Savings’ is illustrated in the figure below.



Relationships between Indicators and Objectives are illustrated in the table below in part. All objectives can be measured by the indicators defined.

Relationships							
	Indicators						
	Improve Cost Savings	Increase Delivery Performance	Reduce Absenteeism	Defects per Unit	Reduce Warranty per 1000 units per month	Reduce Manufacturing Lead Time	
Objectives							
Employ low risk strategy towards capacity expansion							
Improve capacity analysis techniques							
Improve man-power flexibility towards capacity changes							
Explore Make vs Buy Opportunities							
Collaborate on development of more accurate forecasts							
Explore manufacture-to-order processes							
Reduce order delivery times							
Improve dealer and supplier partnerships							
...							

**Activity**

Add the new objectives and new indicators to this table and show where relationships may exist.

**Problems**

The are currently over 230 problems on the ‘Reactive Problem’ list and sorted according to Impact, Risk and Priority. Every machine and assembly station has a ‘Proactive Problem’ list with identified

Activities for avoiding the problems occurring, the table below illustrates a sample of the currently live Problems.

Problems							
Group	Title	Impact	Risk	Priority	Due	Responsible	Status
Proactive	Switch housing difficult to assemble	4	3	5	06/2007	David Noone	---
Proactive	Similar switches interchanged by accident	5	3	5	07/2007	David Noone	😊
Proactive	Omission to place decals on sub-assembly	3	3	5	06/2007	John Sheehan	😊
Reactive	Pins shearing during tightening	5	4	5	04/2007	Stewart O'Neill	😊
...	...	...	...	...	...	...	...

### Activity

*Add some new problems with existing products, that are design related, to this list i.e. what are the potential problems with switches? Do they overheat? Or does the switch begin to stick after a few months? Or perhaps the cover breaks easily when installed by an electrician. Remember: this is an exercise – use your imagination to add a few ‘problems’ to the table.*

## Ideas

Every employee is encouraged to generate ideas that can lead to goal attainment. Employees have full access to the objectives and indicators of the organisation. Ideas have been grouped by the ‘Source’ of the idea (e.g. Goals, Problems, New Knowledge, Benchmarks, Employees, Customers, etc.). The table below illustrates some sample live ideas.

Ideas							
Group	Title	Impact	Risk	Priority	Due	Responsible	Status
Goals	Machine Replacement Programme	5	3	4			---
Goals	Staff Magazine	2	1	3		Breda Mooney	😊
Problems	Implement FMEA on Machines	4	3	5			---
Knowledge	Lean Project Management	4	5	4			---
...	...	...	...	...	...	...	...

### Activity

*Add some new ideas that are design related, to this list. Do you want to create a new product? Or perhaps make major adjustments to existing ones? Or perhaps do something radical? Remember: this is an exercise – use your imagination to add a few ‘ideas’ to the table.*

## Projects

The top seven approved projects are illustrated in the tables below. The first table shows the current progress of the projects. The ‘Investigate ERP System’ project is currently waiting for new information from head quarters. The ‘Develop Workgroup Procedures’ project is also waiting for clarification of participation from worker representatives.

Projects					
Title	Start	Due	Responsible	%Complete	Status
Install Robotic Welding	3/06	3/07	David Noone	45%	In Progress
Redesign Assembly Line	6/06	12/06	Michael Clark	35%	In Progress
Investigate ERP System	3/06	6/06	Danny Mulryan	90%	Waiting
Develop Workgroup Procedures	1/06	3/06	Breda Mooney	30%	Waiting
Restart Sports and Social Activities	5/06	9/06	Breda Mooney	50%	In Progress
Implement Innovation Training	10/06	12/06	Gary O'Halloran	100%	Complete
Implement eAuctions on selected items	4/06	10/06	Stewart O'Neill	0%	Not Started
...	...	...	...	...	...

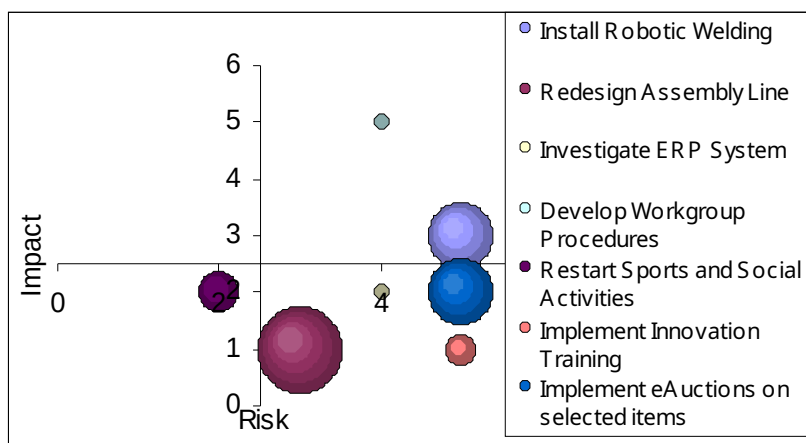
the table below illustrates the cost benefit analysis carried out on the current portfolio of projects. There is currently a high priority on the 'Install Robotic Welding' and 'Redesign Assembly Line' projects.

Projects					
Title	Cost	Benefit	Impact	Risk	Priority
Install Robotic Welding	120000	60000	5	3	5
Redesign Assembly Line	200000	10000	3	1	5
Investigate ERP System	10000	1000	4	2	3
Develop Workgroup Procedures	10000	2000	4	5	2
Restart Sports and Social Activities	50000	5000	2	2	3
Implement Innovation Training	25000	12000	5	1	4
Implement eAuctions on selected items	120000	300000	5	2	4
...	...	...	...	...	...

### Activity

Add some new design related projects to this list and try to make one of them radical. Try to be different from the ideas you created earlier. Do you want to create a new product? Or perhaps make major adjustments to existing ones? Or perhaps do something radical? Remember: this is an exercise – use your imagination to add a few 'ideas' to the table.

A bubble diagram illustrating the Impact versus Risk for the current project portfolio is illustrated in the figure below. The 'Restart Sports and Social Activities' project may have a low impact on achieving our overall goals but the risk is low and other benefits will accrue.



The relationships between Projects and Objectives is illustrated in the table below in part.



Relationships								
Objectives	Projects							
	Install Robotic Welding	Redesign Assembly Line	Investigate ERP System	Develop Workgroup Procedures	Restart Sports and Social Activities	Implement Innovation Training	Implement eAuctions on selected items	...
Employ low risk strategy towards capacity expansion								
Improve capacity analysis techniques								
Improve man-power flexibility towards capacity changes								
Explore Make vs Buy Opportunities								
Collaborate on development of more accurate forecasts								
Explore manufacture-to-order processes								
Reduce order delivery times								
Improve dealer and supplier partnerships								
...								

The relationships between projects and performance indicators is illustrated in the table below. All projects can be measured through the top seven indicators.

### Activity

Add the new objectives and new projects to this table and show where relationships may exist.

Relationships								
Indicators	Projects							
	Install Robotic Welding	Redesign Assembly Line	Investigate ERP System	Develop Workgroup Procedures	Restart Sports and Social Activities	Implement Innovation Training	Implement eAuctions on selected items	...
Shipped Weight per Employee								
Delivery Performance								
Absenteeism								
Defects per Unit								
Warranty per 1000 units per month								
Manufacturing Lead Time								
Cost Savings								
...								

### Activity

*Add the new indicators and new projects to this table and show where relationships may exist.*

## Skills

The skills or training programmes adopted by the team are illustrated in the table below. One new skill has been added this year – ‘Delegating to Others’ and a customised course for this is currently being developed by a sub contractor.

Skills	
Group	Title
Personal	Managing Time
Personal	Negotiating Skills
Personal	Communication and presentation
Personal	Project management
Interpersonal	Managing conflict
Management	Innovation Management
Personal	Leadership
Interpersonal	Delegating to others
Management	Monitoring Performance
...	...

### Activity

*Add a number of skills directly related to the design activity to this list. Visit the internet and see what learning courses or programmes are available to give you new skills.*

The relationships between skills and individuals on the team is illustrated in the table below. The dark shaded cells indicate courses completed. The light shaded cells indicate that a course is planned.

Relationships								
	Skills							
	Managing Time	Negotiating Skills	Communication and presentation	Project management	Managing conflict	Innovation Management	Leadership	..
<b>Individuals</b>								
Andrew Kelly								
Breda Mooney								
Danny Mulryan								
David Noone								
Gary O'Halloran								
James Fogarty								
John Sheehan								
Mary Roche								
...								

**Activity**

*Add the new individuals and new skills to this table and show where relationships may exist.*

# Your Assignment

Create an Innovation plan for your own organization, an organization you have studied or visited, or a fictional organization that you have researched online. Complete the following activities and compile into the one-page template. Make sure the data you generate is credible and realistic. Also make sure that there is traceability or connections between various data e.g. SWOT analysis informs objectives and objectives inform indicators and projects, etc. The output of your assignment is a comprehensive Innovation Plan for your organization. A number of tables are suggested below as a means of recording your data. You can edit or add columns to these tables and/or create new tables to enhance your plan. Use the provided spreadsheet template to prepare your submission.

## Activities

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## A1: Create an Organization

This first activity requires you to document your organization. It could be the IT department within a large organization but any size organization may be considered. Examples of large organizations include Hospitals, Manufacturing Plants, Universities, Local Governments and so on. Your organization will need to be established and relatively large e.g. 12-16 individuals who can participate in developing and implementing the plan.

Search online now for a real organization that is like the one you are considering. Make a note of its internet or 'URL' address. Choose a fictitious 'name' for your organization e.g. Fast Fasteners Ltd., or Kinder Children's Hospital, etc. Choose a name for your Innovation plan that also includes a planning period (typically between two and five years) e.g. 'Fast Fasteners Innovation Plan (2007-2010)', 'Kinder Computer Services Department – ICT Development Plan 2K14' and so on.

**Table 1: Create an Organization**

Organisation	
Name:	
Plan Title:	
Mission:	
Benchmark:	http://

Name: Name of your team e.g. ABC Corp or ABC Corp Quality Dept  
Plan Title: e.g. Innovation Plan 2007-2010 or Development Portfolio 2010  
Mission: Mission for your team in about 12 words  
Benchmark: Web site of a similar but real organisation

Products/Services

List the main products or services offered

## A2: Create Individuals

Your organization should be now forming in your mind. This activity requires you to populate your organization with the team responsible for developing your Innovation Plan. If you have chosen a large organization then these will primarily be senior managers and some specialists. If your organization is a small department then it may be every member of the department plus a few key people from other departments. Define about 7-10 individuals. Imagine that you have to meet regularly at a round table – the more members you have present the more difficult it will be to conduct a proper meeting. Define the names of each of the individuals and their roles.

**Table 2: Create Individuals**

Individuals	
Name	Job Title

Name: Name of the individuals e.g. John Doe  
Job Title: Job title or skill title e.g. Production Supervisor



## A5: Create Objectives

This activity requires you to create a list of between 10-20 strategic objectives for your organization divided into strategic thrusts. Define up to seven strategic thrusts and place into the 'group' column. Define at least two objectives for each strategic thrust and place into the 'title' column. When articulating your objectives try to place an active verb in the sentence preferably at the beginning and keep the number of words to a minimum. Try to define strategic objectives that are general enough to remain relevant for the entire planning period e.g. 3 years. Avoid strategic objectives that can be achieved in say six months – these may more accurately be defined as projects later.

**Table 5: Create Objectives**

Objectives			
Group	Title	Responsible	Status

Group: Label of the strategic thrust e.g. Technology

Title: Title of the objective. Use an active verb e.g. Increase capacity in line with demand)

Responsible: Individual responsible for reporting the status of the objective

Status: Status of the objective (e.g. Not Started, In Progress, Waiting, Completed, etc.)

## A6: Create Indicators

This activity requires you to create a list of about seven performance indicators for your organization. Copy the table below into a spread sheet. Complete each of the cells. Unit is the unit of measurement (e.g. hours/unit). Origin is the original value of the measurement (e.g. January). Target is the target value of the measurement (e.g. December). Try to place an active verb in the title of the indicator e.g. Increase, Decrease, Maintain.

**Table 6: Create Indicators**

Indicators					
Title	Unit	Current	Target	Responsible	Status

Title: Title of the indicator e.g. Reduce Defects per Unit

Unit: Unit of measurement e.g. hours/day

Current: Current value of the indicator (e.g. 230)

Target: Target value of the indicator at end of planning period (e.g. 260)

Responsible: Individual responsible for reporting the status of the indicator

Status: Status of the indicator (e.g. Not Started, Red, Amber, Green, Completed, etc.)

## A7: Create Projects

This activity requires you to create a list of over seven fictitious projects for your organization. Some of these may come from previously defined ideas. Some may also have stemmed from the Problems you created earlier. Try to define projects that have shorter durations than the planning period e.g. 3 years. Project with extremely long durations can be divided into a number of related projects or they may be more accurately defined as initiatives.

**Table 7: Create Projects**

Projects										
Title	Cost	Benefit	Impact	Risk	Priority	Start	Due	Responsible	%Complete	Status
Project 1										
Project 2										
Project 3										
Project 4										
Project 5										
Project 6										
Project 7										

Title: Title of the project

Cost: Cost of the project e.g. 12k

Benefit: Annual payback, revenue or cost avoidance e.g. 5k or a number from 1 to 5

Impact: Impact on the project on goal attainment from 1 to 5

Risk: Level of risk associated with the project in achieving its impact from 1 to 5

Priority: Priority of the project from 1 to 5

Start: Start date of the project

Due: Due date of the project

Responsible: Individual responsible for leading the project

%Complete: The percent completeness of the project

Status: Status of the project (e.g. Not Started, In Progress, Waiting, Completed, etc.)

## A8: Create Responsibilities

This activity requires you to allocate individuals to each of the goals and actions in your Innovation Plan through various tables you created earlier. Be careful not to allocate individuals at random – consider why each individual needs to be allocated to a particular goal or action. Your allocation needs to be credible and realistic. Check for appropriateness and availability of various individuals.

## A9: Create List of Skills

This activity requires you to create a list of skills used or required by individuals in your organization. These skills can be technical skills, managerial skills, personal skills, interpersonal skills and so on. Skills may be articulated as a list of potential training courses.

**Table 8: Create Skills**

Skills	
Group	Title
Technical	
Technical	
Technical	
Technical	
Personal	Communication and presentation
Personal	Project management
Personal	Managing conflict
Personal	Idea generation and problem solving
Personal	Leadership
Interpersonal	Teamwork
Interpersonal	Coaching, mentoring and motivating
Interpersonal	Delegating to others
Interpersonal	Recognising others and rewarding
Management	Handling pressure and stress management
Management	Planning
Management	Monitoring Performance

Group: Label of the skill (e.g. Technical, Personal, Interpersonal, etc)

Title: The statement in less than 12 words



### **A10:Other Lists and Matrices**

Consider adding other lists and even matrices to your one-page template. Try to stick to one page using a small but readable font. Make sure that your spreadsheet is printable on one page and that your name is clearly placed on top of the spreadsheet. Check for template and samples in Blackboard.

**Upload your assignment within Blackboard before the due date agreed.**