



# METHODOLOGY APPLICATION

APPLICATION NO: VM002

APPLICATION TITLE: Wireless Telephone Service

INDUSTRY: Utilities

VALUE METHODOLOGY APPLIED: Value Management

## INDEX

INTRODUCTION .....	1
PROCESS EXPLAINED.....	2
ISSUES AND CONCERNS: .....	2
OBJECTIVE MATRIX: .....	4
NUMERICAL EVALUATION:.....	5
CAUSE & EFFECT GRAPH: .....	5
RECOMMENDATIONS: .....	6
CONCLUSION: .....	6

## INTRODUCTION

This organisation provided a Wireless Telephone services to the public (Rural Area) that would enhance the communication network already in place.

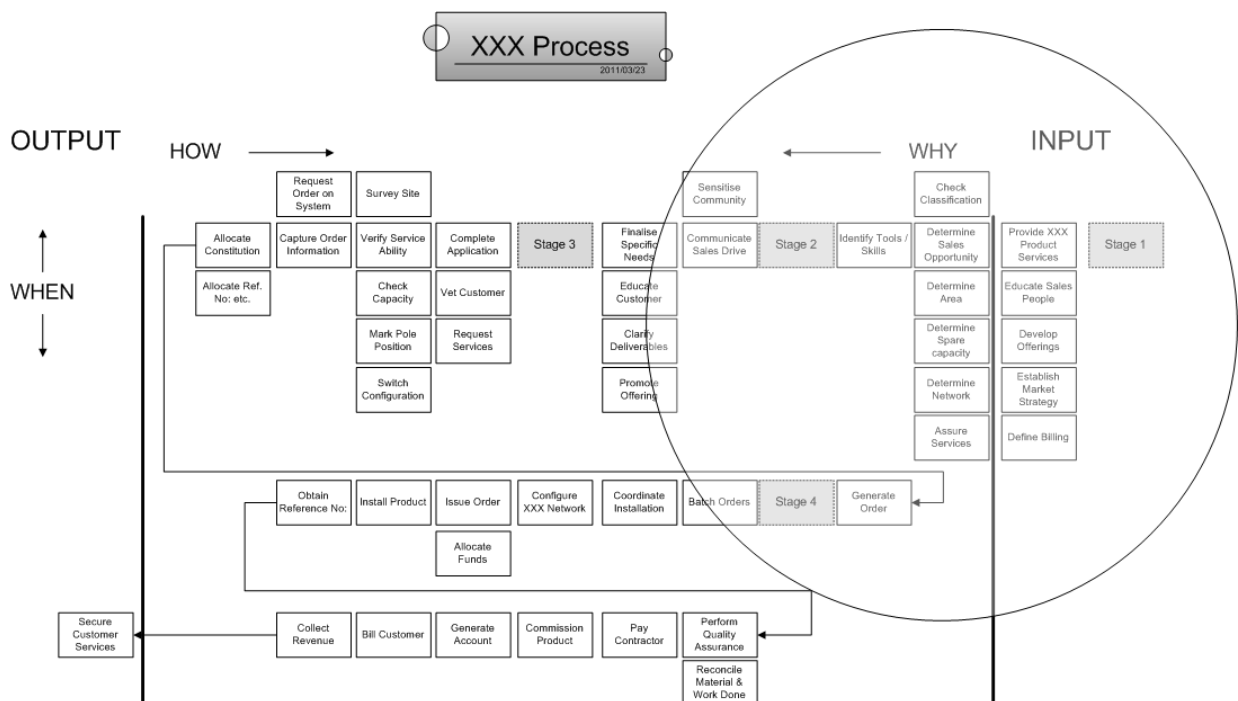
There was however the concern that the high cost of implementing and sustain this service could negatively impact on the organisation.



Therefore it was agreed on to apply the Value Engineering / Value Management (VE/VM) Methodology to develop a strategy to reduce annual cost of XXX Process Logistics by at least R100 Million before the end of March 20XX) & increase revenue through tripling current traffic by providing service to potential XXX customer within 14 days of validated order.

## PROCESS EXPLAINED

The first step was to understand the process flow of this service and a FAST Diagram was applied.



From there the VM Process was followed with the listing of the issues and concerns, objective matrix and numerical evaluation.

## ISSUES AND CONCERNS:

- Installed, existing and new
- Demand forecast
- Hardware, software and services – split?
- Processes
- Market research



Sales process (fraud, processes)  
 Services / products  
 Terrain / locations  
 Positioning / site of mast  
 AC / DC  
 Solution evaluation  
 Viability within certain tolerances  
 Revenue collection – rural versus urban  
 Etc.

These issues were then translated into Results to Achieve:

<b>Functions</b>							
<b>Issues and Concerns</b>	<b>Reduce Processing</b>	<b>Establish Co-ordination</b>	<b>Measure Cost / Deliverables</b>	<b>Promote Strategic Alliances</b>	<b>Manage Quality</b>	<b>Reduce CPE Cost</b>	<b>Develop Offering</b>
01.) Installed , existing and new		X					X
02.) Demand forecast			X				X
03.) Hardware, software and services – split?		X					
04.) Processes	X						
05.) Market research		X					
06.) Sales process (fraud, processes)	X	X					
07.) Services / products							X
08.) Terrain / locations		X					
09.) Positioning / site of mast	X						
10.) AC / DC				X			
11.) Solution evaluation							
12.) Viability within certain tolerances							
13.) Revenue collection – rural versus urban	X	X		X			
14.) Recording systems	X	X					



## OBJECTIVE MATRIX:

Objective:

Provide service to potential product XXX customer within 14 days of validated order and treble (3x) current traffic by the 31<sup>st</sup> March 20XX and include a measurable cost avoidance and/or saving of minimum R 100 million.

RESULTS TO ACHIEVE	RESULTS TO PREVENT
<ol style="list-style-type: none"> <li>1) Define appropriate product set for the relevant market segment (existing market)</li> <li>2) Provide service for new markets with up-graded products (new network)</li> <li>3) Marketing strategy for new and existing market segments</li> <li>4) Match technological capability to support product offering in line with customer requirement</li> <li>5) Reduce processing time by reviewing appropriateness</li> <li>6) Efficient and effective planning / engineering</li> <li>7) Promote strategic alliances (internal / external)</li> <li>8) Reduce CPE installation cost and simplify the process</li> <li>9) Ensure quality management process and responsibilities</li> <li>10) Measure cost / deliverables of process</li> <li>11) Improve / integrate services and business layers (flow-thru)</li> <li>12) End to end project management (ownership)</li> </ol>	<ul style="list-style-type: none"> <li>• Inter-department hostility worsening</li> <li>• False promises to customers</li> <li>• Polarisation of customers</li> <li>• Incur additional, unjustified cost</li> <li>• Procrastinate</li> <li>• Over-extended offering</li> </ul>
AVAILABLE RESOURCES	CONSTRAINTS
<ul style="list-style-type: none"> <li>• Executive goodwill</li> <li>• Technology</li> <li>• Staff (for CPE)</li> <li>• ALCATEL and other suppliers</li> <li>• Marketing skills</li> <li>• Established network</li> <li>• Installed base of equipment</li> <li>• Potential market</li> </ul>	<ul style="list-style-type: none"> <li>• Geographic / terrain</li> <li>• Marketing skills</li> <li>• Time</li> <li>• RC factor</li> <li>• Empires</li> <li>• Technology</li> <li>• Test equipment</li> <li>• Economic climate</li> <li>• Lack of overall project ownership</li> </ul>

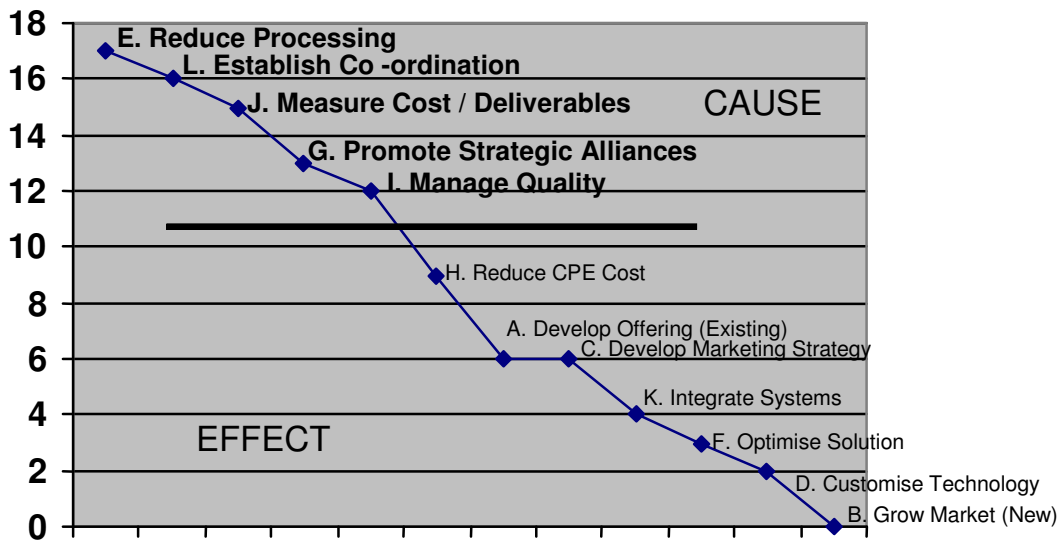
The Results to Achieve were translated into functional requirements and then evaluated by applying the Numerical Evaluation Matrix to determine the Cause and Effect.



**NUMERICAL EVALUATION:**

												Functions	Scr	Rnk
<b>A</b>	A2	A1	A2	E2	A1	G2	H2	I2	J2	K1	L2	Develop offering (existing)	6	
	<b>B</b>	C2	D2	E3	F2	G2	H1	I2	J1	K1	L2	Grow market (new)	0	
		<b>C</b>	C2	E2	C1	G1	H1	I1	J1	C1	L2	Develop marketing strategy	6	
			<b>D</b>	E2	F1	G2	H2	I1	J3	K1	L2	Customise technology	2	
				<b>E</b>	E2	E1	E2	E1	J1	E2	L1	Reduce processing	17	1
					<b>F</b>	G2	H2	I2	J2	K1	L2	Optimise solutions (planning)	3	
						<b>G</b>	G1	I1	J1	G2	G1	Promote strategic alliances	13	4
							<b>H</b>	I1	J1	H1	L1	Reduce CPE cost	9	
								<b>I</b>	J1	I2	L1	Manage quality	12	5
									<b>J</b>	J2	L1	Measure cost / deliverables	15	3
										<b>K</b>	L2	Integrate systems	4	
											<b>L</b>	Establish co-ordination (DECT)	16	2

**CAUSE & EFFECT GRAPH:**



The team focused on the top 5 functions and established recommendations for each of them.



## RECOMMENDATIONS:

Area / Function of investigation: **Reduce Processing**

(Reduce processing time by reviewing appropriateness of current process (adjust and optimise))

STRATEGY	RECOMMENDATIONS	BENEFITS	SAVING (R)	SUCC. RATE	RISK	COUNTER MEASURE
01.) Explore alliances with installation contractors (SMME) for sales, maintenance, billing, collecting and creating a kind of franchise / agent for our company. (END to END services)	Establish and define scope of work in line with Government Telecom Policy Define and set criteria for the End to End Co-ordination function and Alliance Agreement (if required) Review compensation plans for Alliances <b>1<sup>st</sup> Phase Solutions:</b> Expand on current scope of work, to include Sales, Delivery of Accounts, Revenue Collection and 1 <sup>st</sup> Line Maintenance (perform Contract Review)	Savings explained: – Less survey (20 000 x R250.00) – Elimination GPS contracts – sales (200 000 x R40.00) – Initial 25% savings on material handling logistics (CPE, waste reduction etc.), allocation of 10% to contractor (to be evaluated) to manage additional responsibility (15% saving on 300 million) – ± 40% of installs using recovery equipment will not have to be reworked (40% / 40 000 units = 16 000 x R100.00) – Cost of sales (conservative claim) – 100 000 sales @ R100.00 – contractor commission @ R50.00 – Reduction in installation time, generating increased revenue / rental (improvement of average ½ month in installation time, reflecting in revenue increase on rental only (03.0 million) and additional calls (03.0 million)	05.0 million 08.0 million 45.0 million 01.6 million 05.0 million <i>06.0 million Revenue Increase</i>	70%	<ul style="list-style-type: none"> <li>▪ Lack of overall management of contractor</li> <li>▪ Wrong choice of customer</li> <li>▪ Quality standards? Company image?</li> <li>▪ Installation type / qty</li> <li>▪ Support from sales?</li> </ul>	<ul style="list-style-type: none"> <li>▪ ILO function expanded – Project Management Office</li> <li>▪ Audits on correct points Contractor to control CPE</li> <li>▪ Control CPE logistics</li> <li>▪ Involve sales in implementation</li> </ul>

## CONCLUSION:

This project incorporated the Value Management Principles and the Value Engineering FAST Diagram highlighted the functional relationship within the process.

By *Reducing Process* together with the *Establish Coordination* between the various Stakeholder, *Measure Cost / Deliverables*, *Promote Strategic Alliances* with other Utilities Companies who have similar logistics problems / opportunities and focusing on *Manage Quality* to eliminate re-work / downtime on equipment the objective were realised beyond expectation.