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## APPENDICES

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### 7.1 APPENDIX A: QUESTIONNAIRE (PHASE 1)

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## CHANGE DYNAMICS WITHIN PROJECT MANAGEMENT:

### QUESTIONNAIRE ON CHANGE DYNAMICS CONSTRUCT RELEVANCE

Dear respondent

The purpose of this questionnaire is to establish the relevance of certain constructs around change dynamics in the domain of project management. This questionnaire forms part of the PhD study of Riana Smith at the University of Pretoria under the supervision of Dr Yvonne du Plessis.

**The purpose of this study** is to contribute to the existing body of knowledge around change dynamics in the context of managing projects.

**The very nature of project management, i.e. the rigorous and structured management of the project performance framework, timelines, deliverables, quality criteria, costs and the temporary nature of the project configuration, does not always allow sufficient time in the process to apply sound change management philosophy, principles and methodology to manage and entrench the change effected by the project.**

**Therefore, more often than not, the management of the change dynamics imperative within the context of the project management methodology is overlooked, neglected or expedited to such an extent that it is rendered worthless.**

By completing this questionnaire, you will contribute hugely to determining which of the dimensions mentioned below are applicable to reflect change dynamics in the context of project management. The relevance of the proposed change dynamics dimensions will be determined.

Completion of this questionnaire should take **no longer than 20 minutes** of your valuable time. Your responses and other detail will be considered highly confidential. Responses will be analysed and only consolidated results will be made available.

In order to ensure the integrity of the conclusions drawn from this survey, it is important that all questions are answered and returned to Riana Smith (PhD student in Organisational Behaviour) who can be reached at [rianasmith@telkomsa.net](mailto:rianasmith@telkomsa.net) or on tel. 083 444 0094 by no later than

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There is no right or wrong answer. Please consider each item individually based on your past experience. Indicate your answer with an 'X' in either the 'Essential', 'Useful but not essential' or 'Not necessary' box.

**DEFINITIONS:**

**Project Management**

A project has a single, definable purpose and result, and is usually specified in terms of cost, schedule and performance requirements. Every project is unique, is temporary in nature, cuts across organisational lines, involves unfamiliarity and is considered a process with distinct phases called the project life cycle.

**Change dynamics**

Change dynamics refers to change management aspects that form part of the effective implementation of planned change through a sequence of activities, processes and leadership that produce organisational improvements to enhance economic potential and the creation of competitive advantage.

**DEMOGRAPHIC DETAIL**

**Name:** \_\_\_\_\_

**Years of project management experience:**

0 – 2 years	
3 – 5 years	
6 – 10 years	
11 – 15 years	
16 years and more	

**Industry:**

Agriculture, hunting, forestry and fishing	
Mining and quarrying	
Manufacturing	
Electricity, gas and water supply	
Construction	
Wholesale and retail trade	
Transport, storage and communication	
Financial intermediation, insurance, real estate and business services	
Community, social and personal services	
Other (please specify)	

**Project management involvement:**

❖ project leader	
❖ member of team	

**Functional area:** \_\_\_\_\_

**Highest qualification**

❖ Matric	
❖ National Higher Certificate	
❖ Diploma	
❖ 3-year undergraduate degree	
❖ Post graduate degree	

**Qualification in project management (if any):**  
**How do you view your proficiency level in change management theories and dynamics?**

❖ I have vast experience	
❖ I have moderate experience	
❖ I have limited experience	
❖ I have no experience	

Please qualify your response:

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Do you wish to receive the results of the survey?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

The purpose of this questionnaire is for you to indicate whether you consider the listed dimensions to be relevant to change dynamics. You therefore have to mark **one** of the 3 (three) boxes listed below. This information obtained will serve as input into an assessment tool for change dynamics,

If you mark 'Essential', you will indicate that you agree that the aspect is related to change dynamics within the project management context. Should you mark 'Useful, but not essential', you will indicate that you do consider the aspect to be advantageous to change dynamics within the project management context, but not essential. Should you mark 'Not necessary' you will indicate that you do not consider the construct to be related to change dynamics within project management.

Example of response options:

	Essential	Useful, but not essential	Not Essential
The price of gold impacts on staff morale			X
Visible leadership is essential for a successful change interventions	X		
Audio equipment in boardrooms		X	

### DIMENSIONS OF CHANGE DYNAMICS WITHIN PROJECT MANAGEMENT

What is the relevance (if any) of the following dimensions and elements with regard to change dynamics within the context of project management?

#### A. CONCEPTUAL/INITIATION PHASE

(i.e. the pre-feasibility assessment of the project and its parameters/scope)

CREATING THE NEED FOR CHANGE		Essential	Useful, but not essential	Not Essential
1	An awareness of the need to change should be created			
2	A compelling case for change should be made by leadership			
3	A burning platform should exist for the need to change			
4	Energy should be created around the need for change, i.e. role players should internalise the need for change.			
5	Comprehension by management of the complex nature of managing change dynamics within projects			
6	Communication of the new strategic issues, vision and corporate objectives is essential to ensure buy-in			
7	A sense of urgency needs to be created			
8	A guiding coalition of stakeholders should be formed			
9	Employee motivation for change needs to be encouraged			
10	A critical mass in support of the change should be developed			



	<b>Please add any more dimension(s) you deem relevant:</b>			
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**ASSESSING READINESS FOR CHANGE**

		Essential	Useful, but not essential	Not Essential
11	Management competence and experience of change dynamics within a project management context should be assessed			
12	The organisational environment (internal and external) should be assessed, i.e. a comprehensive diagnosis should be conducted			
13	Problems and priorities should be identified			
14	The readiness for change should be assessed			
15	The barriers and resistance to change should be identified and planned for			
16	Level of change fatigue should be assessed.			
17	Change readiness / resilience should be developed.			
18	Criteria for success and performance indicators should be developed.			
19	Risk propensity should be assessed			
20	The potential implications of the change, such as costs, impact on morale, etc. should be assessed.			
21	The change intervention should be aligned with the overall business strategy			
22	Top management should have an adequate understanding of change management.			
	<b>Please add any other dimension(s) you deem relevant:</b>			

**B. PLANNING PHASE**

(i.e. planning the execution of the project scope, deliverables, timeframe and resource requirements)

**COMMUNICATION AND ENGAGEMENT**

		Essential	Useful, but not essential	Not Essential
1	Visible commitment and presence from leadership structures is essential			
2	Top management should champion and sponsor the change project			
3	Leadership should be aligned to potential project outcomes			
4	Appropriate and aligned leadership behaviour should be developed			
5	Leadership behaviour should be sustained			
6	Candid communication by leadership to staff around the project scope and potential changes			
7	Openly discuss planned changes and potential problems			
8	Synergy and open communication between project team and line management essential			
9	Encourage the use of an adequate variety of communication channels			
10	Messages around the vision from leadership should be consistent			
11	Staff should be aligned to potential project outcomes			

12	Engaging two-way communication should be a priority			
13	Stakeholders should be identified and focused engagement plans should be developed			
14	All employees are relevant and stakeholders such as line management and labour should be involved			
15	Meaningful participation is managed as an integral part of the process			
16	Decision-making processes should be transparent			
17	Consensus and shared vision should be developed			
18	Career expectations of project members should be managed			
19	Changes in business procedures due to project implementation should be communicated to ensure that people and infrastructure support it			
20	A dedicated team for change management and communication should be established			
21	The project team should ensure that they understand the company culture and conduct themselves in such a way not to alienate the organisation			
22	Project team members should be orientated with regard to change management and change dynamics			
23	'Quick wins' should be communicated and celebrated throughout the process			
	<b>Please add any other dimension(s) you deem relevant:</b>			

**CREATION OF AN ENABLING ENVIRONMENT**

		<b>Essential</b>	<b>Useful, but not essential</b>	<b>Not Essential</b>
23	Leadership should be inspiring			
24	Organisational power and political dynamics should be addressed			
25	An enabling environment and project structures should be created			
26	The right people with the necessary credibility should be chosen for the project organisation			
27	It should be ensured that everyone involved in the change effort should understand his/her role			
28	A comprehensive risk analysis should be conducted to inform a strategy to mitigate these risks			
29	The business should be redefined			
30	Necessary tools and know-how required in the change project should be identified early			
31	Training needs concerning the use of new tools and technology should be evaluated			
32	Project members should be transitioned from a functional role to a project role through an on-boarding process			
33	Workload of project members should be managed, i.e. balance between functional and project duties should be facilitated			
34	Continuous stakeholder involvement should take place to ensure alignment to both organisational and political agendas			
35	A systems engineering approach is advisable, i.e. people, systems and processes affected by the project should be included in the design and planning of the project			
36	Training on new requirements should happen early in the			

	process to ensure that capacity is built and fear is reduced			
37	A learning project environment should be created			
38	Difference(s) in organisational cultures between contractors, suppliers, project team and operations should be managed			
39	Capacity should be built for the changes through both generic and job-specific training			
40	A learning environment should be promoted and facilitated			
41	Credible change agents should be identified and oriented			
42	There should be alignment between corporate strategy and the project outcomes			
43	Adequate budget and resources determination and allocation by leadership is important			
44	An internal team comprising of senior executives should be set up to manage and monitor progress at a strategic level			
45	Multi-disciplinary teams comprising of all stakeholders should be formed.			
46	A change management expert should be part of the project team			
47	Measurement of project success should include both quantitative and qualitative measures			
48	Co-operation across function areas is essential			
49	Potential competing issues should be removed through a process of prioritisation			
50	A supportive infrastructure around the change agents should be built			
51	A clear migration plan should be developed			
52	Capacity building – including “softer” skills should be a focus area			
53	Organisational values, e.g. collaboration, openness, trust, supportiveness & involvement, should be harnessed			
54	An environment supportive of innovation should be created			
55	Quick remedial action should be taken to solve emerging problems			
56	Continuous co-operation between line and project management should be fostered			
57	Maintaining enthusiasm and comprehension for the project			
58	Managed risk taking, i.e. a degree to risk propensity should be allowed			
59	Resistance to change should be identified and managed			
60	The understanding of project objectives and quality of communication during the change project should receive attention			
61	Alternatives and establishing action plans should be investigated			
62	Data collection and data feedback are important			
63	The future state should be determined			
64	Top management should have a medium to long term focus and not have a ‘quick-fix’ mentality			
65	Unreasonable expectations attributed to the project as a solution to all organisational problems should be avoided			
66	Appropriate change management methodology should be used			

67	Fears around potential job losses should be addressed to minimise resistance to change			
68	The project needs to be considered within the context of the organisational system, i.e. the impact on systems, structures and processes			
	<b>Please add any other dimension(s) you deem relevant:</b>			

### C. IMPLEMENTATION

(i.e. executing the stated outcome and objectives)

		Essential	Useful, but not essential	Not Essential
69	Silo mentality and fragmented departmental interests should be identified and dealt with			
70	Organisational integration should be fostered			
71	A transparent decision-making process should be instituted			
72	Proper management of change should be done throughout			
73	New values should be promoted			
74	Striving for 'quick wins' as tangible short-term results			
75	Perception management should receive adequate focus			
76	Continuous staff motivation should be a priority			
77	Communication should focus on mindset and cultural shift of all involved			
78	Anxiety around potential and/or perceived job loss, loss of autonomy and/or authority should be identified and managed			
79	Behaviour patterns and feelings should be closely monitored			
80	Employees should be empowered to act on the new vision			
81	New symbols should be created to further embed the change			
82	Multiple interventions to entrench new organisational culture and values should be undertaken			
83	Continuous measurement and feedback on progress should be done rigorously			
84	Changes effected during the project should be consolidated			
85	Continuously emphasise the systems nature of the organization			
86	The necessary changes in HR and other policies should be made to sustain the change			
87	Rigid hierarchical structures should be replaced by more appropriate organisational structures			
88	Line managers should be receptive to change and innovation			

	<b>Please add any other dimension(s) you deem relevant:</b>			
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**D. POST IMPLEMENTATION**

(i.e. embedding and institutionalising the changes effected through the project)

		Essential	Useful, but not essential	Not Essential
1	Change(s) should be institutionalised through structures, systems and procedures			
2	New culture and behaviour should be reinforced through appropriate incentive schemes			
3	Performance management should be designed to reward new required behaviour and organisational outputs			
4	The impact of change should be measured			
5	Continuous training and refreshers in the newly required behaviour/outputs should be done			
6	The organization should be stabilised			
7	The new state should be formalised			
8	Monitoring to adherence of the new state should be ongoing			
9	Attempts to revert to old practices should be discouraged			
	<b>Please add any other dimension(s) you deem relevant:</b>			

**THANK YOU - YOUR PARTICIPATION IN THIS SURVEY IS HIGHLY VALUED**

## 7.2 APPENDIX B: QUESTIONNAIRE (PHASE 2)

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### CHANGE MANAGEMENT WITHIN THE GENERAL CONTEXT OF PROJECT MANAGEMENT

Dear participant

You have been selected to participate in this study due to your specialisation in project management.

**The purpose of the study** is to contribute to the existing body of knowledge on change dynamics within the general context of managing projects.

**The very nature of project management, i.e. the rigorous and structured management of the project performance framework, timelines, deliverables, quality criteria and costs, and the temporary nature of the project configuration, do not always allow sufficient time in the process to apply sound change management philosophy, principles and methodology in managing and entrenching the change effected by the project.**

**Therefore, more often than not, the management of the change dynamics imperative within the context of the project management methodology is overlooked, neglected or expedited to such an extent that it is rendered worthless.**

This study forms part of a PhD thesis in Organisational Behaviour conducted by Riana Smith under the supervision of Dr Yvonne du Plessis at the University of Pretoria.

You are kindly requested to complete the following questionnaire, which should not take longer than 20 minutes. Your responses and other detail will be considered as highly confidential. Responses will be analysed, and only consolidated results will be made available. Please forward the completed questionnaire electronically to Riana Smith by **10 June 2006** at the following e-mail address: [vanessabezuidenhout@flysaa.com](mailto:vanessabezuidenhout@flysaa.com)

Should you have any questions, please contact me at 083 254 1754 or on my e-mail (RSmith@etihad.ae).

Thank you very much for your support.

Kind regards

Riana Smith

## CHANGE MANAGEMENT WITHIN THE GENERAL CONTEXT OF PROJECT MANAGEMENT

### QUESTIONNAIRE:

This questionnaire contains statements relating to the characteristics of “change management within the context of project management”, i.e. “the way change management/dynamics are managed in project environments to facilitate project success and sustainability”. Please complete the questionnaire, indicating to which extent you agree with each statement. **Each item must be rated, based on your personal experience and perception as member or manager of a project team.** Use the following five-point rating scale.

- 1 = **strongly disagree**  
 2 = **disagree**  
 3 = **neither disagree nor agree**  
 4 = **agree**  
 5 = **strongly agree**

<i>For office use only</i>			
<i>Respondent number</i>			
<b>Please rate each of the following statements as per rating scale:</b>			
<b>Section A:</b>			
<b>During the conceptual / initiation phase of the project.....</b>			
1	Each project team member is aware of the theory/principles of change management.		<b>A1</b>
2	Each project team member is aware of the importance of the management of change within the project management domain.		<b>A2</b>
3	Top management initiates a business case for change.		<b>A3</b>
4	Relevant stakeholders have internalised the need for change.		<b>A4</b>
5	The complex nature of change is acknowledged and understood by top management.		<b>A5</b>
6	Communication of the new strategy and objectives ensures buy-in by all relevant stakeholders.		<b>A6</b>
7	A sense of urgency is communicated, and understood by each stakeholder.		<b>A7</b>
8	The importance of stakeholder coalition is established.		<b>A8</b>
9	All key stakeholders are motivated throughout the project.		<b>A9</b>
10	All stakeholders support the need for change.		<b>A10</b>
11	Management is competent to manage change dynamics during projects.		<b>A11</b>
12	Management has experience in dealing with change.		<b>A12</b>
13	A comprehensive diagnosis of the organisational environment, both internal and external, has been conducted.		<b>A13</b>
14	Potential problems are identified and discussed by all stakeholders and the project team.		<b>A14</b>
15	Priorities are identified and discussed by all stakeholders and the project team.		<b>A15</b>
16	The readiness for change in the organisation has been assessed.		<b>A16</b>
17	The project team has identified possible barriers and resistance to change.		<b>A17</b>
18	The project team has put corrective action plans in place for all the identified barriers and resistance to change.		<b>A18</b>
19	The project team has developed change-readiness capacity and resilience within the organisation.		<b>A19</b>
20	Criteria for project success and related performance indicators have been developed.		<b>A20</b>
21	Project team members have identified and assessed potential project risk factors.		<b>A21</b>
22	The project team has assessed the potential implications of change, such		<b>A22</b>

	as costs, impact on morale, etc.		
23	Commitment from top management is visible.		A23
24	Top management aligns the change intervention with the overall business strategy.		A24
25	Top management has an adequate understanding of change management.		A25
<b>Section B:</b>			
<b>During the planning phase of the project.....</b>			
26	Top management supports the project team members.		B26
27	Top management's presence is experienced by the project team.		B27
28	The project outcome is sponsored and championed by top management.		B28
29	Top management is held accountable for the project outcome.		B29
30	Top management is aligned to potential project outcomes.		B30
31	Top management's behaviour is aligned and appropriate to the goals of the project.		B31
32	Top management candidly communicates the project scope to the organisation.		B32
33	Top management communicates all potential changes to the organisation.		B33
34	There is a synergy between top management and the project team.		B34
35	There is open communication between top management and the project team.		B35
36	Top management encourages the use of an adequate variety of communication channels between the project team and the organisation.		B36
37	The messages around the vision of top management are consistent.		B37
38	The messages around the vision of the top management are reliable.		B38
39	Stakeholders, including labour unions, have been identified.		B39
40	Focused engagement plans have been developed for all stakeholders (including labour unions).		B40
41	Stakeholders, together with all in the project team, are involved in bringing about change management.		B41
42	All project members enjoy meaningful participation.		B42
43	The project manager manages the participation of all project team members and stakeholders as an integral part of the project plan.		B43
44	The decision-making processes are transparent to all team members.		B44
45	Team members all reach consensus on the vision of the project.		B45
46	Project team members understand the company culture.		B46
47	Project team members conduct themselves in such a way as not to alienate the organisation.		B47
48	Project team members are orientated with regards to change management and change dynamics.		B48
49	Project teams communicate and celebrate early gains ("quick wins")		B49
50	Project team members positively identify the organisational power and political dynamics.		B50
51	Project team members create an enabling environment.		B51
52	Project team members create an appropriate project structure.		B52
53	The project manager selects competent people to become part of the project team.		B53
54	Each project team member clearly understands his/her role.		B54
55	Project team conducts a comprehensive risk analysis, which informs a strategy to mitigate these risks.		B55
56	Project team timeously identifies the necessary tools and know-how required for the project.		B56
57	Project team assesses training needs with regard to the use of new tools and technology, envisaged for the success of the project.		B57
58	Project team members are transitioned from a functional role to a project role through a structured orientation process.		B58
59	Project managers with dual roles and responsibilities, i.e. functional and project duties, manage their workload.		B59
60	Stakeholders are continuously involved to ensure that the project is aligned		B60



	to both organisational and political agendas		
61	Training of all affected employees on new requirements takes place, ensuring that capacity is built.		<b>B61</b>
62	A project environment conducive to exploring and making mistakes is fostered.		<b>B62</b>
63	Organisational culture differences between contractors, suppliers, project team and operations are managed appropriately.		<b>B63</b>
64	Capacity building of affected employees takes place through customised training.		<b>B64</b>
65	A learning environment for project team members is promoted.		<b>B65</b>
66	A learning environment for project team members is facilitated accordingly.		<b>B66</b>
67	Credible change agents within the project team are identified.		<b>B67</b>
68	Orientation of identified change agents within the project team takes place.		<b>B68</b>
69	Project outcomes are aligned to corporate strategy.		<b>B69</b>
70	Top management ensures that an adequate budget is made available to the project team.		<b>B70</b>
71	Top management ensures that sufficient resources are made available to the project team.		<b>B71</b>
72	Project success factors for change are identified and measured.		<b>B72</b>
73	A multi-disciplinary team comprising all stakeholders is put together for the project.		<b>B73</b>
74	The project success is measured quantitatively.		<b>B74</b>
75	The project success is measured qualitatively.		<b>B75</b>
76	There is co-operation across all functional areas.		<b>B76</b>
77	Competing issues within the project are prioritised and dealt with accordingly.		<b>B77</b>
78	A supportive infrastructure around the change agents is carefully considered and initiated.		<b>B78</b>
79	A clear migration plan is in place.		<b>B79</b>
80	A key focus area of the project is capacity building, which includes “softer” skills such as change resilience.		<b>B80</b>
81	Organisational values such as collaboration, openness, trust, supportiveness and involvement between key role players are fostered.		<b>B81</b>
82	The environment supports innovation.		<b>B82</b>
83	Emerging problems are resolved by quick remedial action.		<b>B83</b>
84	There is continuous co-operation between line and project management.		<b>B84</b>
85	Enthusiasm and comprehension for the project is maintained at all times by all project team members.		<b>B85</b>
86	Risk factors are continually identified.		<b>B86</b>
87	Risk taking is managed accordingly.		<b>B87</b>
88	Resistance to change is identified and managed at all times.		<b>B88</b>
89	Project team members understand the project objectives.		<b>B89</b>
90	Project team members understand importance of the quality of communication during the change project.		<b>B90</b>
91	Responsible project team members take ownership of data collection and data feedback.		<b>B91</b>
92	The future state of the project is determined on a continuous basis.		<b>B92</b>
93	Top management has a medium- to long-term focus.		<b>B93</b>
94	Top management does not place emphasis on a “quick-fix” mentality.		<b>B94</b>
95	There are no unreasonable expectations of the project as a medium to solve all organisational problems.		<b>B95</b>
96	An appropriate change management methodology is used and maintained.		<b>B96</b>
97	Fears around potential job losses are addressed appropriately to minimise the resistance to change.		<b>B97</b>
98	Project needs, i.e. the impact on systems, structures and process, are considered within the context of the organisational system.		<b>B98</b>

<b>Section C:</b>			
<b>During the implementation of the project.....</b>			
99	There is no silo mentality, and fragmented departmental interests are not entertained.		<b>C99</b>
100	Team members and top management ensure that organisational integration is fostered.		<b>C100</b>
101	Top management involves the project team members in the decision-making process to ensure that the process is transparent.		<b>C101</b>
102	Top management ensures that change is properly managed throughout the process.		<b>C102</b>
103	Top management and project team members promote new values continuously.		<b>C103</b>
104	Adequate focus is placed on perception management.		<b>C104</b>
105	Staff is continuously motivated according to their needs.		<b>C105</b>
106	Communication is focused on mindset and culture of all relevant stakeholders.		<b>C106</b>
107	Top management identifies and manages anxiety around potential and/or perceived job losses, loss of autonomy and/or authority.		<b>C107</b>
108	Top management closely monitors behaviour patterns and feelings of all relevant stakeholders.		<b>C108</b>
109	Employees are empowered to act on the new vision.		<b>C109</b>
<b>Section D:</b>			
<b>During the post-implementation phase of the project</b>			
110	Changes are institutionalised through structures, systems and procedures.		<b>D110</b>
111	Appropriate incentive schemes ensure that the new culture and behaviour is reinforced throughout the organisation.		<b>D111</b>
112	Performance management systems are designed to reward new required behaviour and organisational outputs.		<b>D112</b>
113	The impact of the change on the organisational culture is measured and monitored on a continual basis.		<b>D113</b>
114	Provision is made for continuous training and refreshers for the newly acquired behaviour, and outputs are monitored accordingly.		<b>D114</b>
115	The organisation is sensitised continuously about the change.		<b>D115</b>
116	The new state is formalised, implemented and monitored on a continuous basis.		<b>D116</b>
117	Employees are discouraged to revert to old practices.		<b>D117</b>
118	Employees are encouraged and facilitated to accept and comply with the new change environment.		<b>D118</b>
<b>Section E:</b>			
<b>General</b>			
	<b>Please mention any other aspects that you consider to be relevant to the measurement of change dynamics within the project management domain THAT RUNS CONTINUOUSLY THROUGHOUT ALL THE PROJECT PHASES, e.g. communication, risk management, etc. :</b>		<b>E119</b>

### BIOGRAPHICAL INFORMATION

<b>Please provide the following information about yourself by marking the relevant number or block</b>							<b>For office use only</b>
<b>1. Age</b>	..... years						<b>E1</b>
<b>2. Gender</b>	Male	1		Female	2		<b>E2</b>
<b>3. Work history</b>							<b>E3</b>
How long have you worked in this sector? ..... years							
<b>4. The economic sector in which you are working:</b> <i>(Mark one sector only)</i>							<b>E4</b>
Agriculture, forestry and fishing				01			
Mining and quarrying				02			
Manufacturing				03			
Electricity, gas and water				04			
Construction (contractors)				05			
Wholesale and retail trade, catering and accommodation				06			
Transport, storage and communication				07			
Financial intermediation, insurance, real estate and business services				08			
Community, social and personal services				09			
General government services				10			
Others (please name)				11			
Other producers (please name)				12			
<b>5. Qualifications (<i>highest qualification only</i>)</b>							<b>E5</b>
Secondary school		1	Std. 10 or equivalent		2		
Post-school certificate/diploma		3	National Diploma/National Higher Diploma		4		
Bachelor's degree or equivalent		5	Honours degree or equivalent		6		
Master's degree or equivalent		7	Doctoral degree or equivalent		8		
<b>6. Organisational Level</b>							<b>E6</b>
Senior management	1	Middle management	2	Supervisory	3		

Other	4	<b>Please specify:</b> .....					
<b>7. Home language: (Mark one language only)</b>							<b>E7</b>
Afrikaans	01	IsiZulu	05	Xitsonga	09		
English	02	IsiNdebele	06	Setswana	10		
IsiXhosa	03	Southern Sotho	07	Siswati	11		
Tshivenda	04	Northern Sotho	08	<i>Sign Language</i>	12		
Others:	13	<b>Please specify</b> .....					
<b>8. How many years of project management experience do you have as a <b>team member</b>?</b> _____							<b>E8</b>
<b>9. How many years of project management experience do you have as a <b>project manager</b>?</b> _____							<b>E9</b>

**PLEASE SAVE YOUR INPUTS IF YOU ARE COMPLETING THIS ELECTRONICALLY**

Thank you for taking the time to complete this questionnaire.

All information will be treated as confidential.  
Please e-mail completed questionnaire to:

**vanessabezuidenhout@flysaa.com**

### 7.3 APPENDIX C: ITEMAN™ (Conventional Item and Test Analysis Program) STATISTICS FOR THE COMBINED GROUP (South African and international responses)

Section A question number (items)	Percentage endorsements					Mean	Variance	Item to section correlation
	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree			
A1	2.3%	22.7%	21.5%	41.3%	12.2%	3.384	1.074	0.63
A2	1.2%	17.4%	22.1%	43.6%	15.7%	3.552	0.980	0.66
A3	1.7%	8.7%	22.7%	48.8%	18.0%	3.727	0.838	0.55
A4	3.6%	7.7%	21.9%	42.0%	24.9%	3.769	1.041	0.63
A5	0.6%	10.5%	23.8%	45.9%	19.2%	3.727	0.826	0.65
A6	1.7%	10.5%	9.9%	45.9%	32.0%	3.959	0.993	0.58
A7	2.3%	26.2%	34.3%	27.9%	9.3%	3.157	0.981	0.58
A8	1.7%	9.9%	21.5%	48.3%	18.6%	3.721	0.876	0.56
A9	4.1%	15.7%	36.6%	34.9%	8.7%	3.285	0.936	0.73
A10	1.2%	24.4%	22.1%	33.1%	19.2%	3.448	1.189	0.67
A11	3.5%	11.0%	29.1%	43.6%	12.8%	3.512	0.936	0.69
A12	1.7%	16.3%	32.6%	42.4%	7.0%	3.366	0.802	0.51
A13	4.1%	17.4%	31.4%	34.3%	12.8%	3.343	1.074	0.73
A14	0.6%	16.9%	19.2%	49.4%	14.0%	3.593	0.893	0.60
A15	0.6%	7.6%	24.4%	52.9%	14.5%	3.733	0.673	0.52
A16	9.3%	19.8%	22.1%	37.8%	11.0%	3.215	1.343	0.74
A17	0.6%	20.9%	21.5%	47.1%	9.9%	3.448	0.898	0.63
A18	2.9%	22.1%	24.4%	40.7%	9.9%	3.326	1.034	0.79
A19	2.9%	18.6%	24.4%	38.4%	15.7%	3.453	1.108	0.73
A20	0.6%	4.1%	9.3%	52.3%	33.7%	4.145	0.624	0.51
A21	0.0%	5.2%	20.3%	59.3%	15.1%	3.843	0.539	0.52
A22	0.0%	10.5%	25.0%	47.1%	17.4%	3.715	0.762	0.62
A23	3.5%	3.5%	18.0%	32.0%	43.0%	4.076	1.058	0.68
A24	4.1%	11.6%	12.2%	43.6%	28.5%	3.808	1.202	0.69
A25	3.5%	10.5%	28.5%	41.3%	16.3%	3.564	0.990	0.70
<b>Section A Averages</b>	<b>2.33%</b>	<b>13.98%</b>	<b>23.15%</b>	<b>42.96%</b>	<b>17.58%</b>	<b>3.594</b>	<b>0.386</b>	<b>0.64</b>

Section B question number (items)	Percentage endorsements					Mean	Variance	Item to section correlation
	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree			
B26	0.0%	4.1%	10.5%	50.0%	35.5%	4.169	0.594	0.55
B27	0.6%	12.8%	50.0%	33.7%	2.9%	3.256	0.539	0.55
B28	1.7%	8.1%	12.8%	38.4%	39.0%	4.047	0.998	0.54
B29	2.3%	7.6%	24.4%	43.6%	22.1%	3.756	0.917	0.55
B30	0.6%	9.3%	21.5%	55.8%	12.8%	3.709	0.683	0.63
B31	1.2%	12.2%	25.6%	50.6%	10.5%	3.570	0.768	0.63
B32	2.3%	11.6%	12.8%	50.6%	22.7%	3.797	0.988	0.62
B33	4.1%	16.3%	19.8%	33.1%	26.7%	3.622	1.340	0.74

B34	3.5%	9.9%	30.2%	44.2%	12.2%	3.517	0.901	0.64
B35	0.0%	14.5%	25.0%	47.1%	13.4%	3.593	0.799	0.67
B36	0.6%	7.6%	28.5%	35.5%	27.9%	3.826	0.888	0.68
B37	0.6%	7.0%	20.9%	45.9%	25.6%	3.890	0.784	0.72
B38	2.3%	8.7%	25.0%	44.8%	19.2%	3.698	0.909	0.75
B39	1.7%	8.7%	20.9%	41.3%	27.3%	3.837	0.962	0.57
B40	4.7%	15.1%	15.1%	43.0%	22.1%	3.628	1.257	0.62
B41	6.4%	24.4%	41.3%	22.1%	5.8%	2.965	0.952	0.45
B42	1.7%	13.4%	39.0%	39.5%	6.4%	3.355	0.729	0.59
B43	0.6%	6.4%	26.7%	59.3%	7.0%	3.657	0.528	0.37
B44	0.0%	12.2%	37.2%	41.3%	9.3%	3.477	0.680	0.49
B45	1.2%	20.6%	15.3%	42.9%	20.0%	3.600	1.122	0.54
B46	1.8%	5.9%	27.6%	56.5%	8.2%	3.635	0.620	0.40
B47	0.0%	10.5%	35.5%	47.1%	7.0%	3.506	0.599	0.44
B48	2.9%	7.6%	21.6%	50.9%	17.0%	3.713	0.871	0.55
B49	4.1%	17.4%	42.4%	30.2%	5.8%	3.163	0.846	0.26
B50	2.9%	10.5%	31.4%	48.8%	6.4%	3.453	0.759	0.62
B51	1.2%	8.1%	34.9%	48.8%	7.0%	3.523	0.622	0.54
B52	1.7%	4.1%	16.9%	53.5%	23.8%	3.936	0.723	0.61
B53	1.7%	7.6%	14.0%	54.1%	22.7%	3.884	0.812	0.46
B54	0.6%	7.6%	13.4%	34.9%	43.6%	4.134	0.907	0.62
B55	1.2%	14.0%	24.4%	50.6%	9.9%	3.541	0.795	0.67
B56	0.0%	8.1%	21.5%	49.4%	20.9%	3.831	0.722	0.63
B57	0.6%	12.8%	23.3%	45.3%	18.0%	3.674	0.871	0.66
B58	2.9%	20.3%	43.0%	32.0%	1.7%	3.093	0.701	0.49
B59	4.7%	26.2%	29.1%	31.4%	8.7%	3.134	1.093	0.53
B60	1.7%	16.9%	36.0%	35.5%	9.9%	3.349	0.867	0.47
B61	2.9%	11.6%	27.3%	47.7%	10.5%	3.512	0.866	0.65
B62	5.2%	32.6%	30.2%	28.5%	3.5%	2.924	0.954	0.54
B63	7.6%	23.8%	37.8%	26.2%	4.7%	2.965	0.987	0.54
B64	2.3%	14.5%	24.4%	48.8%	9.9%	3.494	0.878	0.62
B65	1.2%	16.3%	29.7%	44.2%	8.7%	3.430	0.815	0.53
B66	1.7%	16.9%	35.5%	40.1%	5.8%	3.314	0.774	0.61
B67	4.1%	18.6%	35.5%	37.8%	4.1%	3.192	0.853	0.61
B68	1.2%	25.0%	27.3%	40.7%	5.8%	3.250	0.874	0.62
B69	0.6%	5.2%	8.7%	50.6%	34.9%	4.140	0.678	0.56
B70	1.7%	9.9%	11.6%	51.2%	25.6%	3.890	0.912	0.62
B71	2.9%	11.0%	15.7%	38.4%	32.0%	3.855	1.159	0.63
B72	0.6%	12.8%	18.0%	39.5%	29.1%	3.837	1.008	0.57
B73	1.2%	10.5%	37.8%	43.6%	7.0%	3.448	0.666	0.25
B74	1.2%	11.6%	3.5%	55.2%	28.5%	3.983	0.889	0.42
B75	0.0%	11.0%	23.8%	48.3%	16.9%	3.709	0.764	0.45
B76	1.2%	11.6%	34.3%	44.2%	8.7%	3.477	0.726	0.67
B77	0.0%	3.5%	29.7%	54.7%	12.2%	3.756	0.499	0.72
B78	1.7%	23.8%	25.6%	44.2%	4.7%	3.262	0.868	0.69
B79	1.2%	14.0%	15.2%	43.3%	26.3%	3.795	1.040	0.67
B80	1.8%	13.1%	40.5%	33.9%	10.7%	3.387	0.821	0.54
B81	2.9%	9.9%	39.0%	35.5%	12.8%	3.453	0.876	0.68
B82	0.6%	15.7%	28.5%	45.3%	9.9%	3.483	0.796	0.54
B83	0.0%	13.4%	18.0%	52.9%	15.7%	3.709	0.788	0.67
B84	1.7%	14.5%	29.7%	35.5%	18.6%	3.547	1.015	0.67
B85	1.2%	9.3%	29.1%	44.2%	16.3%	3.651	0.809	0.71
B86	0.6%	15.7%	26.2%	47.7%	9.9%	3.506	0.796	0.65
B87	2.9%	20.9%	20.3%	44.2%	11.6%	3.407	1.067	0.74

B88	4.1%	17.5%	39.2%	33.3%	5.8%	3.193	0.869	0.66
B89	0.0%	2.9%	9.3%	41.9%	45.9%	4.308	0.574	0.60
B90	0.0%	5.8%	16.3%	50.6%	27.3%	3.994	0.669	0.61
B91	0.6%	5.2%	44.2%	44.2%	5.8%	3.494	0.506	0.21
B92	0.0%	12.8%	22.7%	58.1%	6.4%	3.581	0.627	0.55
B93	1.2%	9.3%	22.1%	51.2%	16.3%	3.721	0.783	0.45
B94	4.1%	19.8%	28.5%	34.9%	12.8%	3.326	1.115	0.48
B95	2.3%	18.6%	32.0%	36.6%	10.5%	3.343	0.946	0.46
B96	2.9%	15.7%	17.4%	48.3%	15.7%	3.581	1.046	0.66
B97	4.7%	15.7%	25.0%	44.2%	10.5%	3.401	1.043	0.66
B98	0.0%	7.6%	18.6%	55.2%	18.6%	3.849	0.652	0.60
<b>Section B Averages</b>	<b>1.83%</b>	<b>12.82%</b>	<b>25.97%</b>	<b>43.78%</b>	<b>15.60%</b>	<b>3.585</b>	<b>0.278</b>	<b>0.59</b>

Section C question number (items)	Percentage endorsements					Mean	Variance	Item to section correlation
	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree			
C99	7.6%	13.4%	18.6%	49.4%	11.0%	3.430	1.187	0.79
C100	1.8%	8.8%	19.9%	52.0%	17.5%	3.749	0.820	0.83
C101	2.3%	20.9%	43.0%	27.9%	5.8%	3.140	0.794	0.68
C102	3.5%	11.6%	25.6%	43.0%	16.3%	3.570	1.013	0.86
C103	3.5%	10.5%	37.8%	40.7%	7.6%	3.384	0.806	0.73
C104	4.1%	17.4%	20.9%	42.4%	15.1%	3.471	1.145	0.81
C105	4.7%	16.6%	40.8%	34.3%	3.6%	3.154	0.817	0.76
C106	3.5%	6.4%	22.7%	50.6%	16.9%	3.709	0.881	0.78
C107	3.5%	17.4%	34.3%	38.4%	6.4%	3.267	0.882	0.83
C108	7.6%	25.0%	36.0%	27.9%	3.5%	2.948	0.968	0.73
C109	0.6%	12.3%	25.7%	48.5%	12.9%	3.608	0.776	0.64
<b>Section C averages</b>	<b>3.87%</b>	<b>14.57%</b>	<b>29.58%</b>	<b>41.39%</b>	<b>10.59%</b>	<b>3.399</b>	<b>0.547</b>	<b>0.66</b>

Section D question number (items)	Percentage endorsements					Mean	Variance	Item to section correlation
	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree			
D110	0.0%	4.7%	11.0%	51.7%	32.6%	4.122	0.607	0.65
D111	4.1%	14.0%	18.0%	47.7%	16.3%	3.581	1.092	0.78
D112	2.3%	13.4%	25.6%	47.7%	11.0%	3.517	0.878	0.71
D113	3.5%	19.8%	48.3%	25.0%	3.5%	3.052	0.724	0.77
D114	2.9%	11.6%	34.9%	40.7%	9.9%	3.430	0.850	0.77
D115	2.9%	10.5%	55.8%	27.3%	3.5%	3.180	0.601	0.68
D116	0.6%	10.5%	23.3%	44.8%	20.9%	3.750	0.850	0.75
D117	2.9%	9.4%	37.4%	44.4%	5.8%	3.409	0.721	0.57
D118	0.6%	5.2%	15.7%	57.6%	20.9%	3.930	0.623	0.69
<b>Section D averages</b>	<b>2.20%</b>	<b>10.99%</b>	<b>30.00%</b>	<b>42.99%</b>	<b>13.83%</b>	<b>3.552</b>	<b>0.386</b>	<b>0.72</b>

**Overall scale statistics (n = 172):**

	Section			
	A	B	C	D
Number of items	25	69	11	9
Number of examinees	172	172	172	172
Mean	3.594	3.585	3.399	3.552
Variance	0.386	0.278	0.547	0.386
Standard deviation	0.622	0.527	0.739	0.622
Skewness	-0.290	-0.046	-0.695	-0.598
Kurtosis	-0.619	-0.495	0.224	0.105
Minimum	2.000	2.397	1.200	1.667
Maximum	5.000	4.959	5.000	5.000
Median	3.600	3.630	3.500	3.667

**Scale intercorrelation statistics (n = 172):**

		Section			
		A	B	C	D
Section	A	1.000	0.904	0.790	0.730
	B	0.904	1.000	0.775	0.704
	C	0.790	0.775	1.000	0.831
	D	0.730	0.704	0.831	1.000



## 7.4 APPENDIX D: ASSESSMENT TOOL FOR CHANGE MANAGEMENT IN PROJECT MANAGEMENT

In the course of the study, the items included in the initial draft change management measurement instrument were subjected to several rounds of validation. Furthermore, the reliability of the instrument was tested and has been confirmed by means of rigorous statistical analysis. Various changes were effected as a result of this process. This process culminated in the final assessment tool set out in this Appendix D.

The four tables below set out the measurement items included in the final change management assessment tool for the four phases of a project life cycle. The assessment items for each phase have been arranged primarily according to their respective factor loadings, in descending order. This criterion was used as a proxy to rank items in terms of their level of importance, but the criterion has been modified in minor instances in order to group items that are related or that reflect a similar theme, or to group items that reflect a chronological sequence in the project management process.

### Section A of the final assessment tool – the conceptual or initiation phase of the project

Item No.	Original Question No.	Assessment Item Description
A1	A13	A comprehensive diagnosis of the organisational environment, both internal and external, has been conducted
A2	A16	The readiness for change in the organisation has been assessed
A3	A3	Top management initiates a business case for change
A4	A19	The project team has developed change-readiness capacity and resilience within the organisation
A5	A17	The project team has identified possible barriers and resistance to change
A6	A18	The project team has put corrective action plans in place for all the identified barriers and resistance to change
A7	A9	All key stakeholders are motivated throughout the project
A8	A25	Top management has an adequate understanding of change management
A9	A24	Top management aligns the change intervention with the overall business strategy
A10	A11	Management is competent to manage change dynamics during projects
A11	A23	Commitment from top management is visible
A12	A8	The importance of stakeholder coalition is established
A13	A6	Communication of the new strategy and objectives ensures buy-in by all relevant stakeholders

A14	A4	The relevant stakeholders have internalized the need for change
A15	A10	All stakeholders support the need for change
A16	A2	Each project team member is aware of the importance of the management of change in the project management domain
A17	A5	The complex nature of change is acknowledged and understood by top management
A18	A1	Each project team member is aware of the theory / principles of change management
A19	A22	The project team has assessed the potential implications of change, such as costs, impact on morale, etc.
A20	A14	Potential problems are identified and discussed by all the stakeholders and the project team
A21	A21	Project team members have identified and assessed potential project risk factors
A22	A20	Criteria for project success and related performance indicators have been developed
A23	A12	Management has experience in dealing with change

### Section B of the final assessment tool – the planning phase of the project

Item No.	Original Question No.	Assessment Item Description
B24	B38	The messages around the vision of the top management are reliable
B25	B37	The messages around the vision of top management are consistent
B26	B33	Top management communicates all potential changes to the organisation
B27	B86	Risk factors are continually identified
B28	B55	The project team conducts a comprehensive risk analysis which informs a strategy to mitigate these risks
B29	B87	Risk-taking is managed according to the risk mitigation strategy
B30	B77	Competing issues within the project are prioritized and dealt with according to their relative importance
B31	B85	Enthusiasm and comprehension for the project is maintained by all project team members at all times
B32	B36	Top management encourages the use of an adequate variety of communication channels between the project team and the organisation
B33	B35	There is open communication between top management and the project team
B34	B32	Top management candidly communicates the project scope to the organisation
B35	B84	There is continuous co-operation between line management and project management
B36	B96	An appropriate change management methodology is utilized and maintained
B37	B76	There is co-operation across all functional areas
B38	B78	A supportive infrastructure around the change agents has been carefully considered and initiated
B39	B83	Emerging problems are resolved by quick remedial action
B40	B61	All affected employees are trained on new requirements ensuring that capacity is built
B41	B81	Organisational values such as collaboration, openness, trust, supportiveness and involvement between key role players are fostered

B42	B97	Fears around potential job losses are addressed appropriately to minimize resistance to change
B43	B79	A clear migration plan is in place
B44	B88	Resistance to change is identified and managed at all times
B45	B57	The project team assesses training needs with regard to the use of any new tools and technology envisaged for the success of the project
B46	B30	Top management is aligned to potential project outcomes
B47	B31	Top management's behaviour is aligned and appropriate to the goals of the project
B48	B34	There is synergy between top management and the project team
B49	B54	Each project team member clearly understands his/her role
B50	B64	Capacity building of affected employees takes place through customized training
B51	B71	Top management ensures that sufficient resources are made available to the project team
B52	B70	Top management ensures that an adequate budget is made available to the project team
B53	B56	The project team identifies the necessary tools and know-how required for the project timeously
B54	B90	Project team members understand the importance of the quality of communication during the change project
B55	B40	Focused engagement plans have been developed for all stakeholders (including labour unions)
B56	B68	Orientation of identified change agents within the project team takes place
B57	B89	Project team members understand the project objectives
B58	B52	Project team members create an appropriate project structure
B59	B50	Project team members proactively identify the organisational power and political dynamics
B60	B67	Credible change agents within the project team are identified
B61	B98	Project deliverable requirements, such as the impact on systems, structures and processes, are considered within the context of the organisational system
B62	B42	All project members enjoy meaningful participation
B63	B72	Project success factors for change are identified and measured
B64	B69	Project outcomes are aligned to corporate strategy
B65	B82	The environment supports innovation
B66	B65	A learning environment for project team members is promoted
B67	B66	A learning environment for project team members is facilitated accordingly
B68	B62	A project environment conducive to exploring and making mistakes is fostered
B69	B39	Stakeholders, including labour unions, have been identified
B70	B26	Top management supports the project team members
B71	B48	Project team members are oriented with regard to change management and change dynamics
B72	B29	Top management is held accountable for the project outcome
B73	B80	A key focus area of the project is capacity building, which includes "softer" skills such as change resilience
B74	B92	The future state of the project is determined on a continuous basis
B75	B28	The project outcome is sponsored and championed by top management
B76	B45	Team members all reach consensus on the vision of the project

B77	B59	Project managers with dual roles and responsibilities, i.e. functional and project duties, manage their workload
B78	B63	Organisational culture differences between contractors, suppliers, project team and operations are managed appropriately
B79	B27	Top management's presence is experienced by the project team
B80	B51	Project team members create an enabling environment
B81	B44	The decision-making processes are transparent to all team members
B82	B58	Project team members are guided through the transition from a functional role to a project role through a structured orientation process
B83	B95	There are no unreasonable expectations that the project as a medium will solve all the organisation's problems

### Section C of the final assessment tool – the implementation phase of the project

Item No.	Original Question No.	Assessment Item Description
C84	C102	Top management ensures that change is properly managed throughout the process
C85	C100	Team members and top management ensure that organisational integration is fostered
C86	C99	There is no silo mentality; and fragmented departmental interests are not entertained
C87	C107	Top management identifies and manages anxiety around potential and/or perceived job losses, loss of autonomy and/or authority
C88	C104	Adequate focus is placed on perception management
C89	C106	Communication is focused on the mindset(s) and culture(s) of all the relevant stakeholders
C90	C105	Staff is continuously motivated according to their needs
C91	C103	Top management and project team members continuously promote new values
C92	C108	Top management monitors closely the behavioural patterns and feelings of all the relevant stakeholders
C93	C101	Top management involves the project team members in the decision-making process to ensure that the process is transparent
C94	C109	Employees are empowered to act on the new vision

### Section D of the final assessment tool – the post-implementation phase of the project

Item No.	Original Question No.	Assessment Item Description
D95	D113	The impact of the change on the organisational culture is measured and monitored on a continual basis
D96	D116	The new state is formalised, implemented and monitored on a continuous basis
D97	D110	Changes are institutionalised through structures, systems and procedures
D98	D114	Provision is made for continuous training and refresher courses to reinforce the newly acquired behaviour, and outputs are monitored accordingly
D99	D118	Employees are encouraged to accept and comply with the new changed environment and such acceptance and compliance is facilitated

D100	D111	Appropriate incentive schemes ensure that the new culture and behaviour are reinforced throughout the organisation
D101	D112	Performance management systems are designed to reward the newly acquired behaviour and new organisational outputs
D102	D117	Employees are discouraged from reverting to old practices
D103	D115	The organisation is sensitised continuously to the change

The final assessment tool measuring change management within the project management domain consists out of a total of 103 elements.