An insight into public sector readiness for change – the Fiji experience

Neale J. Slack and Gurmeet Singh

ABSTRACT

The purpose of this paper is to provide an insight into public sector readiness for change from the perspective of four dimensions, namely, change management, change communication, change resistance, and readiness for change; to determine associations between these four dimensions; and to establish a prediction model for readiness for change. Using a structured survey questionnaire, data was collected from the employees of the Maritime Safety Authority of Fiji (MSAF). These research findings suggest statistically significant positive correlations exist between three change variables, namely, change management, change communication, and readiness for change; whereas, negative correlations exist between change resistance and the other 3 variables. The results also show that change management, change communication, and change resistance added statistically significantly to the prediction of readiness for change. This paper makes its theoretical contribution to the scarce theoretical strands relating to change efforts of public enterprises; and practical contribution towards prediction of readiness for change, policy making, and strategic planning at government levels.

Keywords: Change management, change communication, change resistance, readiness for change, Fiji
INTRODUCTION

“Public sector reform (‘PSR’) is about strengthening the way that the public sector is managed. The public sector may be overextended – attempting to do too much with too few resources. It may be poorly organized; its decision-making processes may be irrational; staff may be mismanaged; accountability may be weak; public programmes may be poorly designed and public services poorly delivered. PSR is the attempt to fix these problems” (Schacter, 2000, p.1). However, introducing change into the public sector is extremely contentious and complex (Huerta Melchor, 2008), and is an enormous challenge (Isett et al., 2012; Piening, 2013).

“With so much research undertaken and information available on managing change, it stands to reason that change programmes today should be more successful than those of more than a decade ago” (Keller & Aiken, 2009, p.1). However, up to 70 percent of change efforts fail (Beer & Nohria, 2000; Isern & Pung, 2007; Patterson, 2000). Investigating further into why change programmes fail reveals that the majority stumble on precisely the thing they are trying to transform: employee attitudes and management behaviour, exacerbated by other factors, such as, poorly planned diagnosis and data quality (Di Pofi, 2002); inadequate budget, poorly deployed resources and poor change architecture (Keller & Aiken, 2009); poor change communication (Gilsdorf, 1998; Murdoch, 1999); organisational culture, change efforts, and change-agents (Bennebroek-Gravenhorst et al., 1999); and resistance to change (Maurer, 1996).

Change specialists (Amatayakul, 2005; Kirch et al., 2005; Kotter, 1996; Kuhar et al., 2004; O’Connor & Fiol, 2006) suggest that readiness for change is a vital antecedent to successful change implementation. Kotter (1996) opines that half of the organizational change failures result from organisational leaders’ inability to establish adequate readiness. Weiner et al. (2008) reinforce the opinion of Kotter, and state that where leaders have not prepared the organisation and its employees for change, anticipated undesirable consequences result - including change effort false starts, stalling of change efforts as resistance increases, and change effort failure.

Given the significant investment of time, energy, and resources involved in change efforts; high organisational change failure rates; the lack of reliability and validity of instruments used for measuring organisational readiness for change (Weiner et al., 2008); and that since 1998 various efforts at public service reform of the predecessor organisations leading up to the public enterprise (MSAF), and of MSAF, have failed to deliver the required change management outcomes; these factors set the stimulus for this research to develop a stronger knowledge base about readiness for change, ultimately to strengthen organisational and employee efforts (Weiner et al., 2008).

Using a structured survey questionnaire, data was collected from the population of the Maritime Safety Authority of Fiji (MSAF) employees, totaling 66, and deployed in 11 locations across Fiji. Descriptive and inferential statistical analysis is performed using the Statistical Package for Social Sciences.

The paper is organized as follows: “Literature Review” followed by the background; research problem, justification, and hypothesis of the study; research methodology; results and discussion; and finally conclusions and research implications.
LITERATURE REVIEW

READINESS FOR CHANGE

The importance of readiness for change and how to create it is widely published, however, independence of researcher empirical assessment of different types of organisational change, and the use of different theoretical perspectives, have resulted in a proliferation of definitions of readiness for change, and inconsistency regarding the conceptual terminology (Weiner et al., 2008) - the phenomenon is described by different terms - ‘readiness for change’ (Armenakis et al., 1993; Chonko et al., 2002; Cook & Scott, 2005; Devereaux et al., 2006; Jones et al., 2005; Rafferty & Simons, 2006; Rampazzo et al., 2006; Simpson & Flynn, 2007); ‘change readiness’ (Clark et al., 1997; Maurer, 2001; Simon, 1996; West, 1998); ‘organisational readiness’ (Chan & Ngai, 2007); ‘organisational readiness for change’ (Fuller et al., 2007); and ‘readiness for organisational change’ (Cunningham et al., 2002; Holt et al., 2007), to name but a few. In this research, ‘readiness for change’ and ‘change readiness’ have been used interchangeably.

Weiner et al. (2008) suggests that typically two approaches are adopted by authors in describing readiness – in psychological terms, with employees’ attitudes, beliefs and intentions emphasized (Armenakis et al., 1993; Barrett et al., 2005; By, 2007; Rafferty & Simmons, 2006); and in structural terms, with organisational capabilities and resources emphasized (Prochaska et al., 2006; Levesque et al., 2001; McCluskey & Cusick, 2002). However, literature highlights a wide variation in the indicators of readiness, and the target of the readiness (individual, group, or organizational) (Weiner et al., 2008).

Weiner et al. (2008), at the individual level, define readiness for change as the degree by which employees are psychologically and behaviorally inclined toward implementation of organisational change. Armenakis et al. (1993, pp.681-682) define readiness for change as “the cognitive precursor to the behaviours of either resistance to, or support for, a change effort”, and is the approach whereby employees’ beliefs and attitudes about an organisational change effort are modified to perceiving the change is necessary and achievable. According to Armenakis et al. (1993), readiness for change is comprised of both resistance to change, and support of change, and is viewed as a continuum, from one extreme to the other. In contrast, at the organisational level, Lehman et al. (2002) define organisational readiness for change as the combination of the perceptions of motivational readiness, organisational resources, staff attributes, and organisational climate; however, also notes “other factors can influence whether specific interventions are adopted and implemented” (p.198).

It could be assumed that when employees are ready to accept the change, low levels of resistance to change or high levels of readiness for the change are indicators for effective organisational change (Elving, 2005). Experts (Armenakis & Harris, 2002; Elving, 2005; Kotter, 1996; Scott et al., 1995) contend that when high organisational readiness for change is present, employees are highly committed to the change effort, apply increased effort toward the change effort, and exhibit greater steadfastness in the presence of difficulties.

CHANGE MANAGEMENT

Berger (1994, p.7) defines change management as “the continuous process of aligning
an organisation with its marketplace and doing it more responsively and effectively than competitors.” While Burnes (2000) defines change management as a continuous process of experiment and adaptation intended to align an organisation’s capacity with the demands of a volatile environment, Kotter (2011) defines the concept as a method for progressing individuals, teams, and organisations to an intended future state. According to Perkov et al. (2008, p.3), “Change management is a set of structured processes and actions, tools and techniques for managing the human side of business changes in order to align organisation’s goals with changed demands of the environment”.

Historically, organisations (in particular public service organisations) have been designed for stability rather than change (Malek & Yazdanifard, 2012a). However, in this fast changing business environment we operate in, typified by the absence of environmental stability (Breu & Benwell, 1999), effective change management is essential to coping with the enormity of change, while increasing benefits and reducing the risk of failure during the change effort (Malek & Yazdanifard, 2012a).

**CHANGE COMMUNICATION**

Change communication has been described “as the process by which information is exchanged and understood, with the objective of motivating or influencing behaviour” (Daft, 1997, p.570). Bourke & Bechervaise (2002, p.15) define change communication as the mechanism required “to construct, deconstruct and reconstruct existing realities in order to effect change”. Organisational researchers acknowledge the criticality of change communication in successful organisational change and organisational change management (Fairhurst & Wendt, 1993; Lewis & Seibold, 1996; Rogers, 1995). Notwithstanding, Lewis (2000) contends that methodical research into the effectiveness of communication strategies in change is scant.

As organisations attempt to endure increasing economic, technological, and social turmoil, they depend increasingly on their employees to acclimate to change (Stanley et al., 2005, p. 429). In addition, considering that communication is foundational to the success of all organisations during organisational change efforts, communication is even more critical (Bennebroek-Gravenhorst, et al., 2006; Elving, 2005; Elving & Hansma, 2008; Kotter, 1999). However, change communication is typically inadequately applied, creates a challenge for most organisations (D’Aprix, 1996, p.3), is often ineffective (Burke, 2008; Cummings & Worley, 2009; Fernandez & Rainey, 2006), and when inadequate, can adversely impact the change effort (Llenza, 2008). The consequences of poorly managed organisational change communication are resistance to change, and a lack of change readiness, amplifying the negative facets of the change (DiFonzo et al., 1994; Smelzer & Zener, 1992). However, the importance assigned to communication differs in the literature, and managerial change literature leans towards designating less importance to communication (Cheney et al., 2004; Lewis et al., 2006; Lewis & Seibold, 1998).

**CHANGE RESISTANCE**

The term ‘resistance’ has been defined as “coherence to any attitudes or behaviours that frustrate organisational change goals” (Chawla & Kelloway, 2004, p.485); and as “any behaviour that retains the status quo in spite of applied forces to change the status quo” (Zaltman & Duncan,
As environmental forces escalate the requirement for employees to adjust to change (Ployhart & Bliese, 2006), employees often resist change (Cummings & Worley, 2009; Strebel, 1996). Resistance to change is deemed to be the “enemy of change” (Yue, 2008, p.85); resistance to change is recognized as something to be eliminated or overcome (Waddell & Sohal, 1998); and employees’ resistance to change is frequently disregarded in organisations and in research (Fox & Amichai-Hamburger, 2001; Kiefer, 2005; Liu & Perrewé, 2005). Fine (1986) “suggests that a major cause of resistance to change is inept management” (pp.91-92), however, change-agents and managers have at their avail a choice of strategies to address employees’ resistance to change (Kotter & Schlesinger, 1979). The communication strategy and employee opportunity to participate in the change have been identified as the most effective methods of allaying resistance to change and increasing readiness (Ford et al., 2008; Frahm & Brown, 2007; Jimmieson et al., 2008; Van Dam et al., 2008).

THEORETICAL FRAMEWORK AND CONCEPTUAL MODEL

The theoretical framework of this study is based on the research of Holt et al. (2007) who classified the antecedents of readiness for change into four categories namely, individual, process, context and content factors (Figure 1).

**FIGURE 1: Theoretical Framework: Relationship between Content, Process, Context and Individual Attributes with Change Readiness**

![Diagram of theoretical framework](https://example.com)

**Source:** Holt et al. (2007)

The conceptual model applied to this research depicts the relationship between three antecedents for readiness for change, which are linked to the successful implementation of organisational reform. These three factors (as discussed in the literature review section) are change communication, change management and change resistance (Figure 2).
BACKGROUND

PUBLIC SECTOR REFORM IN DEVELOPING COUNTRIES, THE SOUTH PACIFIC AND FIJI

Many developing countries gained independence in the 1970’s, including the majority of the Pacific Island Countries and Territories (PICT) (Knapman & Saldanha, 1999). During the next decade government expenditure as a percentage of GDP grew to unsustainable levels, facilitated by exceptional high influxes of aid funding and economic mismanagement, and drove many governments to fiscal crisis (Duncan et al., 1999). “Many developing countries also established a heavy reliance on State Owned Enterprises (SOEs) that placed a heavy financial burden on governments” (Karan, 2010, p.26). Donors questioned the developing country SOE model, and offered funding contingent on reduction in the public sector. Since the 1990’s there has been a turnaround, and public sector development has been promoted and has emerged (Schacter, 2000).

PICT governments’ reform agendas are focused on mitigation of demand on their limited resources (Reddy, 1997) and improvement in efficiency, effectiveness and performance (Pollitt et al., 2007); however, this has been a slow process (Asian Development outlook, 2004). “Fiji, like other Pacific post-colonial developing nations, relied heavily on its public sector for socio-economic development and nation building” (Sharma & Lawrence, 2009, p.268). The Department of Public Enterprises was established in Fiji under the Public Enterprise Act (1996). This Act provided a markedly different governance structure for SOEs whereby government retained ownership, however, strategic direction and commercial performance was provided by a government appointed board (Sharma & Lawrence, 2009).

REFORM LEADING TO THE MARITIME SAFETY AUTHORITY OF FIJI (MSAF)

In 1998, under the Public Enterprise Act (1996), the Marine Department was declared a ‘Reorganization Enterprise’ resulting in the establishment of the Shipping Corporation Fiji Limited (SCFL). SCFL was wound up in 1999. The Marine Fleet was renamed Government Shipping Services (GSS), and the Marine Department became the Fiji Islands Maritime Safety Administration (FIMSA). In spite of the name changes, and minimal structural and organisational
reform, no tangible service delivery improvement resulted. In 2005, the reorganisation of Fiji Ports (Ports Terminal Ltd. and Maritime Ports Authority of Fiji) resulted in the establishment of the Fiji Ports Corporation Limited (FPCL) and in the transfer of all regulatory functions to FIMSA. Considering FIMSA administered only a minimal portion of the Fiji government’s international and national maritime safety obligations, and failed to adopt a customer focused and business oriented structure and philosophy, in 2006 FIMSA was declared a Reorganisation Enterprise (Secretariat of the Pacific Community, 2008). In 2011 FIMSA was wound up, and the Maritime Safety Authority of Fiji (MSAF) was established, with a much wider set of responsibilities, and a customer-centric mandate.

**RESEARCH PROBLEM, JUSTIFICATION, AND HYPOTHESIS OF THE STUDY**

The main research problem is that change readiness is critically important to the success of change programmes; however, it is quite difficult to determine whether an enterprise is ready for a change effort; limited ‘immature’ assessment instruments exist to determine readiness, that typically focus on employee readiness and not organisational readiness for change (Combe, 2014; Weiner et al., 2008); and readiness for change lacks empirical studies (Weiner, 2009). The main research problem and history showed that since 1998 efforts at public sector reform of the predecessor organisations leading up to the MSAF failed to deliver the required change management outcomes, and the ongoing public sector reform in Fiji, set the stimulus for this research. This research provides insight into readiness for change from the perspective of four dimensions, namely, change management, change communication, change resistance, and readiness for change; determines associations between these four dimensions; and establishes a prediction model for readiness for change.

One hypothesis is tested in this research relating to the dependent (predicted) variable, readiness for change at MSAF. The null hypothesis is simply a default position that there is no relationship or no difference existing between the variables.

\[ H_0: \text{(No linear relationship exits)} \]

\[ H_1: \text{(Linear relationship exists)} \]

\[ H_0: \text{There is no statistically significant correlation at all; i.e. none of the variables (Change Management, Change Communication, and Change Resistance) belongs in the prediction model for Readiness for Change.} \]

\[ H_1: \text{There is a statistically significant correlation; and at least one of the variables (Change Management, Change Communication, and Change Resistance) belongs in the prediction model for Readiness for Change.} \]

**RESEARCH METHODOLOGY**

The survey instrument for this research is a structured survey questionnaire. This was administered
as a self-completion, written survey, face-to-face, in focus groups. The surveys were personally administered to the population of MSAF employees, dispersed across eight maritime locations of Fiji, namely, Labasa, Savusavu, Taveuni, Levuka, Rakiraki, Nadi/Denarau, and Kadavu. The MSAF employee database identified the employee population. All employees were invited to participate in the survey, and the sample size totaled 66. The questionnaire was pretested in Suva on a sample size of 10 respondents, after which minor changes were made. Justification for the use of a self-completion, written, face-to-face, in focus groups questionnaire as a survey instrument in this research was that this proved to be quicker and cheaper to administer, as many respondents were able to complete the questionnaire simultaneously (Bryman & Bell, 2007), and it was reasonable to expect that response rates would be high, completion rates high, and response bias mitigated (Daniel & Berinyuy, 2010). Completion of the questionnaire took approximately 15-20 minutes. The questionnaire constitutes 73 questions and statements. Section A consists of a demographic section of 12 questions; and Sections B-E consists of 61 statements/questions, based on a 5-point Likert scale. The research assistant was present in administering the questionnaire and this allowed for a greater response rate. The descriptive and inferential statistical analysis (the stepwise (backward) method of building the multiple linear regression model) was performed using the Statistical Package for Social Sciences. The stepwise (backward) method has an advantage over normal stepwise regression, because “it is possible for a set of variables to have considerable predictive capability, even though any subset of them does not. Forward selection and stepwise regression will fail to identify them. Because the variables do not predict well individually, they will never get to enter the model to have their joint behavior noticed” (Dattalo, 2013, p.89). The stepwise (backward) method commences with all variables in the model, and enables their cumulative predictive capability to be seen (Dallal, 2012).

RESULTS AND DISCUSSION

DEMOGRAPHICS

The employee respondents’ response rate was 95% (63 questionnaires completed, with 3 employees opting not to participate), and the completion rate was one hundred percent.

These responses were statistically analyzed using the Statistical Package for Social Sciences. Table 1 shows the demographic characteristics of the respondents in this study included forty-seven (47) males while there were only sixteen (16) females. Indigenous Fijians were numbered forty-seven (47) while there were only sixteen (16) Fijians of Indian origin. The sample mostly consisted of employees aged 31-40 years (18), 21-30 years (17), and 41-50 years (16). In terms of employee length of service with MSAF, a greater proportion of respondents had less than 1 year’s service (24), followed by 1-5 years (19). Technical roles dominated (42) over non-technical roles (21). Dominant maritime qualifications held by employees included no qualification (24) followed by boat master license (10). Gross income per annum of respondents (Fijian Dollars) predominantly was in the range of 11,000 to 20,000 (39) followed by 21,000 to 30,000 (10).
<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>Above 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>17</td>
<td>21</td>
<td>16</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Percent</td>
<td>27</td>
<td>33.3</td>
<td>25.4</td>
<td>12.7</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>47</td>
<td>16</td>
</tr>
<tr>
<td>Percent</td>
<td>74.6</td>
<td>25.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Single</th>
<th>Married</th>
<th>Separated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>11</td>
<td>51</td>
<td>1</td>
</tr>
<tr>
<td>Percent</td>
<td>17.4</td>
<td>81.0</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Fijian</th>
<th>Indo-Fijian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>47</td>
<td>16</td>
</tr>
<tr>
<td>Percent</td>
<td>74.6</td>
<td>25.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Academic Education</th>
<th>Masters</th>
<th>Degree</th>
<th>Diploma</th>
<th>Certificate</th>
<th>No Formal Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>4</td>
<td>8</td>
<td>16</td>
<td>28</td>
<td>7</td>
</tr>
<tr>
<td>Percent</td>
<td>6.3</td>
<td>12.8</td>
<td>25.4</td>
<td>44.4</td>
<td>11.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maritime Education</th>
<th>Class 2 Master / Engineer</th>
<th>Watchkeeper &amp; Class 3 Master / Engineer</th>
<th>Class 4 &amp; 5 Master / Engineer</th>
<th>Class 6 Master / Engineer</th>
<th>Boat Master</th>
<th>No Class Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>3</td>
<td>13</td>
<td>7</td>
<td>6</td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>Percent</td>
<td>4.8</td>
<td>20.7</td>
<td>11.2</td>
<td>9.5</td>
<td>15.9</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Service (Years)</th>
<th>&lt;1</th>
<th>1 - 5</th>
<th>6 - 10</th>
<th>11 - 15</th>
<th>16 - 20</th>
<th>21 - 25</th>
<th>&gt;25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>24</td>
<td>19</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Percent</td>
<td>38.1</td>
<td>30.2</td>
<td>7.9</td>
<td>7.9</td>
<td>6.3</td>
<td>1.6</td>
<td>7.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Job Status</th>
<th>Executive</th>
<th>Senior Management</th>
<th>Middle Management</th>
<th>Professional Staff</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>2</td>
<td>4</td>
<td>9</td>
<td>44</td>
<td>4</td>
</tr>
<tr>
<td>Percent</td>
<td>3.2</td>
<td>6.3</td>
<td>14.3</td>
<td>69.8</td>
<td>6.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department</th>
<th>Qualifications &amp; Licensing</th>
<th>Standards &amp; Compliance</th>
<th>Enforcement &amp; Compliance</th>
<th>Port Regulatory</th>
<th>Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>8</td>
<td>9</td>
<td>22</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Percent</td>
<td>12.7</td>
<td>14.3</td>
<td>34.9</td>
<td>4.8</td>
<td>33.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>Permanent</th>
<th>Contract</th>
<th>Temporary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>17</td>
<td>44</td>
<td>2</td>
</tr>
<tr>
<td>Percent</td>
<td>27.0</td>
<td>69.8</td>
<td>3.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Length of Service as a Civil Servant (Years)</th>
<th>&lt; 1</th>
<th>1 - 5</th>
<th>6 - 10</th>
<th>11 - 15</th>
<th>16 - 20</th>
<th>21 - 25</th>
<th>&gt;25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>17</td>
<td>21</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Percent</td>
<td>27.0</td>
<td>33.3</td>
<td>12.7</td>
<td>9.5</td>
<td>7.9</td>
<td>1.6</td>
<td>7.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gross Income (FJD) per annum</th>
<th>≤$10K</th>
<th>$11K-$20K</th>
<th>$21K-$30K</th>
<th>$31K-$40K</th>
<th>$41K-$50K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>3</td>
<td>39</td>
<td>10</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Percent</td>
<td>4.8</td>
<td>61.9</td>
<td>15.9</td>
<td>11.1</td>
<td>6.3</td>
</tr>
</tbody>
</table>

**TABLE 1: Demographic profile of the sample**
RELIABILITY

Table 2 shows the results of the Cronbach’s Alpha Coefficient for Internal Efficiency for this survey instrument. Cronbach’s alpha values were used to test the reliability of the survey instrument and the result was .860. Individually, Sections B, C, D & E were also considered reliable, with alpha values of .941, .711, .912, and .874 respectively. Based on the Cronbach’s alpha values calculated for this survey instrument, the instrument was considered reliable, with a high degree of internal consistency, thereby adding validity and accuracy to the interpretation of this research’s data.

<table>
<thead>
<tr>
<th>Change Dimension</th>
<th>Cronbach’s Alpha Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Management</td>
<td>.941</td>
</tr>
<tr>
<td>Change Communication</td>
<td>.711</td>
</tr>
<tr>
<td>Change Resistance</td>
<td>.912</td>
</tr>
<tr>
<td>Readiness for Change</td>
<td>.874</td>
</tr>
<tr>
<td>Overall</td>
<td>.860</td>
</tr>
</tbody>
</table>

BIVARIATE CORRELATIONS

Considering the variables in this data were normally distributed, Pearson Product-Moment Correlation Coefficient was utilized to determine whether bivariate correlations existed, and the strength of the correlations, between the four dimensions Change Management, Change Communication, Change Resistance, and Readiness for Change.

Table 3 shows that the correlation between Change Management and Change Communication ($r = .752$) represented a high positive correlation at the .01 level, and was statistically significant. The $p$-value for the correlation ($p = .000$) was < .05, which suggested the correlation was statistically significant at the 0.05 level. These results are in accordance with change management literature that suggests a relationship between organisational change management success and communication (Elving, 2005). Effective change communication is fundamental to change management success (Donaldson et al., 2005; Papantos, 2015). Organisational researchers acknowledge the criticality of change communication in successful organisational change and organisational change management (Lewis & Seibold, 1996; Rogers, 1995). The correlation between change management and change communication can aid organisations, change agents, customers, management and staff to cope with change and its effects (Malek & Yazdanifard, 2012b). Notwithstanding, Lewis (2000) contends that methodical research into the effectiveness of communication strategies in change is scant.
Table 3 shows that the correlation between Change Communication and Readiness for Change ($r = .666$) represented a moderate positive correlation at the .01 level, and was statistically significant. The $p$-value for the correlation ($p = .000$) was < .05, which suggested the correlation was statistically significant at the 0.05 level. These results are in accordance with previous research that change communication was associated with participants’ readiness for change (Eby et al., 2000; Wanberg & Banas, 2000, Weber & Weber, 2001); that when employees receive practical and timely information about a change, they are more inclined to assess the change more positively and display enhanced readiness for change (Miller et al., 1994; Wanberg & Banas, 2000); and that suggests strong support for the association of communication with readiness for change (McKay et al., 2013).

Table 3 shows that the correlation between Change Management and Readiness for Change ($r = .668$) represented a moderate positive correlation at the .01 level, and was statistically significant. The $p$-value for the correlation ($p = .000$) was < .05, which suggested the correlation was statistically significant at the 0.05 level. These results are in accordance with previous research. Change management experts prescribe various change management strategies to create readiness for change (Weiner, 2009; Armenakis et al., 1993; Kotter, 1996), including “disconfirming organisational members’ conceptions of the current situation, stimulating their dissatisfaction with the status quo, creating an appealing vision of a future state of affairs, and fostering a sense of confidence that this future state can be realized” (Armenakis et al., 1993; Kotter, 1996). Change management conditions likely to create readiness for change include, uniform leadership messages and actions, information sharing, and shared experience (Klein & Kozlowski, 2000). Conversely, employees are unlikely to perceive readiness for change when leaders communicate inconsistent messages or act in inconsistent ways, when limited opportunity to interact and share information, or when employees do not have a common basis of experience. Variability in readiness perceptions indicates lower organisational readiness for change and could signal
problems in implementation efforts that demand coordinated action among interdependent actors (Weiner, 2009).

Table 3 shows that the correlation between Readiness for Change and Change Resistance \( (r = -.347) \) represented a low negative correlation at the .01 level. The \( p \)-value for the correlation \( (p = .003) \) was < .05, which suggested the correlation was statistically significant at the 0.05 level. These results are in accordance with previous research which suggests that readiness for change is a precursor to resistance to change (Armenakis et al., 1993); change resistance and readiness have often been situated at opposing extremes of the same spectrum (Armenakis et al., 1993); and, when readiness for change is high, employees are more likely to be part of the change process (Armenakis & Harris, 2002; Madsen et al., 2005), however, when readiness for change is low, employees are likely to resist the change (Weiner et al., 2008). Strategies for tackling resistance to change (such as communication and participation) are reported as literally generating readiness (Armenakis et al., 1993).

Table 3 shows that the correlation between Change Communication and Change Resistance \( (r = -.128) \) represented a low negative correlation at the .01 level. The \( p \)-value for the correlation \( (p = .159) \) was > .05, which suggested the correlation was not statistically significant at the 0.05 level. These results show a negative correlation (in line with previous research), however, the correlation between Change Communication and Change Resistance was not statistically significant (not in line with previous research). A negative correlation between change communication and resistance to change has been extolled in research literature (McKay et al., 2013); appropriate change communication resulted in lower intent to resist change (McKay et al., 2013; Wanberg & Banas, 2000); and change communication is deemed an effective way to restrain resistance to change (Ford et al., 2008; Van Dam et al., 2008). The findings in this research could hold important implications suggesting that other factors may affect the change communication/change resistance correlation. It is recommended that further research be undertaken to investigate this finding.

Table 3 shows that the correlation between Change Management and Change Resistance \( (r = -.244) \) represented a negligible negative correlation at the .01 level. The \( p \)-value for the correlation \( (p = .027) \) was < .05, which suggested the correlation was statistically significant at the 0.05 level. These results are in accordance with previous research. Literature highlights that resistance to change exists, and is a major concern for organizations (Maurer, 1996; Waddell & Sohal, 1998). While some resistance to change in inevitable, inept change management strategies can often cause more severe problems (Baker, 1989). Change-agents and management have a range of change management strategies to address resistance to change, that are dependent on the type of change, time frame, and resources available (Kotter & Schlesinger, 1979).

MULTIPLE LINEAR REGRESSION

Considering that readiness for change is critically important to the success of change programmes (Combe, 2014), and the publicized significance of the impact of Change Management, Change Communication, and Change Resistance, on Readiness for Change (DiFonzo et al., 1994; Elving, 2005); a multiple linear regression analysis was conducted to evaluate whether Change
Management, Change Communication, and Change Resistance (independent variables) predicted Readiness for Change (dependent variable). One hypothesis is tested in this research:

H₀: There is no statistically significant correlation at all; i.e. none of the variables (Change Management, Change Communication, and Change Resistance) belongs in the prediction model for Readiness for Change.

H₁: There is a statistically significant correlation; and at least one of the variables (Change Management, Change Communication, and Change Resistance) belongs in the prediction model for Readiness for Change.

The researcher tested the data against a series of multiple regression assumptions, the assumptions were met, and thus the researcher was confident about any inference/predictions gained from the model – 1. Normality: skewness and kurtosis (ranged between -2 and +2); histograms, Q-Q plots and boxplots reinforced these results; Shapiro-Wilk test (Sig. values > .05) showed no statistically significant difference from a normal distribution could be demonstrated at the .05 level; and scatterplots of standardized residuals showed that the data met the variance and linearity assumptions. 2. Outliers: standardized residuals lay between ±2 to 3 standard deviations of zero, indicative of no outliers. 3. Autocorrelation: Durbin-Watson value of 1.440 shows that the residuals were not correlated. 4. Multicollinearity: Tolerance values ranged from .412 to .934 and VIF values ranged from 2.429 to 1.071 and show that multicollinearity was not a concern.

Table 4 shows that the ‘R’ (Multiple Regression Coefficient) value (.743) indicated a moderate level of prediction of the dependent (predicted) variable. The R Square value (.553) indicated that the independent variables explain 55.3% of the variability of the dependent (predicted) variable, Readiness for Change. The Adjusted R Square value (.530) indicated that the model explained 53.0% of the variability of the response data around its mean; hence the model appeared not to fit the data well. However, it is difficult to predict human perceptions, hence lower R Square values and Adjusted R Square values were expected (Onditi, 2013).

**Table 4: Model Summary Table**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.743a</td>
<td>.553</td>
<td>.530</td>
<td>.608</td>
<td>1.550</td>
</tr>
</tbody>
</table>

b. Dependent Variable: Readiness for Change*
Table 5 shows that at least one of the independent variables statistically significantly predicted the dependent variable: $F(3, 59) = 24.289, p < .0005, R^2 = .553$

**TABLE 5: Anova Table**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>26.958</td>
<td>3</td>
<td>8.986</td>
<td>24.289</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>21.828</td>
<td>59</td>
<td>.370</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48.787</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Readiness for Change
b. Predictors:(Constant), Change Management, Change Resistance, Change Communication.*

Table 6 shows that Change Communication ($p = .003$), Change Resistance ($p = .018$), and Change Management ($p = .026$), with $p$-values < .05 contributed to the model.

**TABLE 6: Coefficients Table**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>95.0% Confidence Interval for B</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.678</td>
<td>.745</td>
<td>.91</td>
<td>.367</td>
<td>.813</td>
<td>2.168</td>
</tr>
<tr>
<td>Change Communication</td>
<td>.695</td>
<td>.228</td>
<td>.405</td>
<td>3.050</td>
<td>.003</td>
<td>.239</td>
</tr>
<tr>
<td>Change Resistance</td>
<td>-.378</td>
<td>.155</td>
<td>-.220</td>
<td>-2.440</td>
<td>.018</td>
<td>-.688</td>
</tr>
<tr>
<td>Change Management</td>
<td>.358</td>
<td>.157</td>
<td>.310</td>
<td>2.282</td>
<td>.026</td>
<td>.044</td>
</tr>
</tbody>
</table>

Table 7 shows that the means of the residuals are zero, as is expected. A Scatterplot was prepared and showed that the data was randomly distributed – Figure 3.

**TABLE 7: Residual Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>.875</td>
<td>4.6101</td>
<td>2.868</td>
<td>.659</td>
<td>63</td>
</tr>
<tr>
<td>Residual</td>
<td>-1.220</td>
<td>1.206</td>
<td>.000</td>
<td>.593</td>
<td>63</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-3.022</td>
<td>2.644</td>
<td>.000</td>
<td>1.000</td>
<td>63</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.005</td>
<td>1.983</td>
<td>.000</td>
<td>.976</td>
<td>63</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Readiness for Change*
In summary, a stepwise (backward) multiple regression was conducted to evaluate whether three independent variables, namely, Change Management, Change Communication, and Change Resistance were necessary to predict Readiness for Change (dependent variable). At step 1 of the analysis the three independent variables were entered into the regression equation. Change Communication ($p = .003$), Change Resistance ($p = .018$), and Change Management ($p = .026$), with $p$-values < .05 contributed to the model: $F(3,59) = 24.289$, $p < .0005$, $R^2 = .553$.

All of the three variables added statistically significantly to the prediction, $p < .05$.

The multiple correlation coefficient ($R = .753$) indicated approximately 55.3% of the variance of Readiness for Change could be accounted for by Change Communication, Change Resistance, and Change Management. Thus, the regression equation for predicting Readiness for Change was:

$$Y_{predicted} = b0 + b1*x1 + b2*x2 + b3*x3$$

(Ypredicted was the dependent variable Change Readiness)

Readiness for Change = (.678) + (.358*Change Management) + (.695*Change Communication) – (.378*Change Resistance)

For this model, Change Management, $t(59) = 2.2820$, $p < .05$; Change Communication, $t(59) = 3.0500$, $p < .05$; and Change Resistance, $t(59) = -2.4400$, $p < .05$; were significant predictors of Readiness for Change. Thus, the null hypothesis is rejected. There is a statistically significant correlation; and at least one of the variables (Change Management, Change Communication, and Change Resistance) belongs in the model.
CONCLUSIONS AND RESEARCH IMPLICATIONS

The main objective of this research was to provide insight into public sector readiness for change; to determine associations between change management, change communication, change resistance, and readiness for change; and to establish a prediction model for readiness for change.

The research findings suggest that statistically significant positive correlations exist between three change variables, namely, change management, change communication, and readiness for change; and, negative correlations exist between change resistance and the other 3 variables. These findings were typically in line with previous research. While a negative correlation was shown between Change Communication and Change Resistance, the correlation was not statistically significant (not in line with previous research). This finding could hold important implications suggesting that other factors may affect the Change Communication/Change Resistance correlation. It is recommended that further research be undertaken to investigate this finding.

The multiple linear regression findings show that change management, change communication, and change resistance added statistically significantly to the prediction of readiness for change.

Readiness for change is critically important to the success of public sector reform. However, it is quite difficult to determine whether a public enterprise and its employees are ready for a change effort; limited ‘immature’ assessment instruments exist to determine readiness; and there exists a dearth of studies that incorporate a practitioner viewpoint (Pettigrew et al. 2001). This study undertaken by practitioners/researchers makes its theoretical contribution primarily to the scarce theoretical strands relating to change efforts of public enterprises and assessment instruments, and practical contribution towards prediction of readiness for change, policymaking, and strategic planning at government levels.

This study has several limitations. First, the sample size is small due to only one public sector undertaking being part of this research. The second limitation of this study relates to the fact that our findings are not generalisable, and the small country (and small public sector undertaking) focus meant that we had to be careful in protecting the confidentiality of our participants. Lastly, we recognize that our research study covers an analysis of three independent variables (Change Management, Change Communication, and Change Resistance) in the prediction model for Readiness for Change, whilst other independent variables exist that could account for variability of the dependent (predicted) variable, Readiness for Change.

It is important that future research focus on more in-depth, empirical studies (Kuipers, 2014), and longitudinal studies (Pettigrew et al. 2001), of the reform process and readiness for change in various public contexts (Kuipers, 2014), practical directions for success (Kuipers, 2014), and the prediction of readiness for change. This research contributes to knowledge by providing a statistically significant model for prediction of readiness for change in support of such future research.
REFERENCES


