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Why change fails: knowledge counts

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Abstract

Purpose – This paper aims to examine the relationship between managers' understanding of a specific organizational change process and their attitudes towards implementing the change.

Design/methodology/approach – After a review of the current literature on the link between organizational change, knowledge of the change, and attitudes towards implementing the change, limited research was found that examined the relationship between knowledge of change and resistance to change. Then original empirical research was conducted by administering a survey to 296 managers from the Botswana Government.

Findings – The results of the regression models suggest that managers who understand the change effort are more likely to be less resistant to change. Specifically, the more a manager understood the change, the more likely they were to be excited about the change, the less likely that they would think the change effort would fail, and the less likely they were to state that they wished their organization had never implemented the change.

Research limitations/implications – The major limitation of our research is that the data are self-reported. The managers themselves rated their knowledge of the change and their resistance or lack of resistance to the change. However, because the question is one where social desirability bias (a major concern of self-reported data) would lead to no variance (all managers should have said that they understood the change) and the self-report bias is minimal. The research implications are that a link between knowledge of the organizational change has been found, and resistance to change, adding to the literature on why individuals resist change.

Practical implications – The practical implications is that senior managers need to focus more on developing checks to ensure that managers understand the change program and the implications of the change program as a way of ensuring that they, and their subordinates, understand the change program.

Originality/value – The value of the study is that it is one of the first studies to empirically show a link between knowledge of change and resistance to change. The originality of the study is the dataset (managers from the public sector in Botswana) and the application (managers attempting to implement total quality techniques in a large-scale bureaucracy).

Keywords Organizational change, Leadership, Non-profit organizations, Africa

Paper type Research paper

Introduction

If there is one constant in the business world it is change. Some have speculated that nearly 75 percent of all American corporations have gone through some type of systemic change program (Attaran, 2000). If there is an even more ubiquitous topic it is writing about change. Whether it is books, practitioner or academic journals, the topic of change is sure to be one of the most researched and well-published subjects.



However, for all that has been written about change, there is still so much more to be learned (Longenecker and Fink, 2001). Why change fails

One area in the change literature that has received interest as of late is the study of why change efforts fail. Starting with the work of Cuch and French (1948) scholars have been interested in understanding why change fails. One common answer is that people – employees, middle managers or even senior managers – resist change (Post and Altman, 1994). We contribute to this literature by examining managers' attitudes about change.

We examine this question in the context of a large-scale countrywide change initiative occurring in the Botswana Public Service. The country of Botswana will celebrate the 50th anniversary of their independence in 2016. They have created a Vision 2016 that identifies the quality of service their government (public service) will provide for its citizens. Starting in 1999, they have been implementing a performance management system (PMS), a variant of total quality management, as a tool to help them create the necessary processes, activities and results that will get the Botswana Public Service to its 2016 Vision. To help with their efforts to implement PMS, the government has trained more than 500 of its highest non-elected personnel in both PMS and in understanding how PMS links to Vision 2016. To examine the question of why some managers are more resistant to change we surveyed 296 secondary school heads from the Ministry of Education (MOE) and senior managers in the Ministry of Minerals, Energy, and Water Affairs (MMEWA) asking questions about their leadership style, tenure, and their outlook about the ongoing change process.

Those trained were selected for training based upon their high-level managerial position in the organization and their responsibility to improve the quality of the services that they deliver in their governmental department. We surveyed this group to understand the relationship between knowledge and change as this group would be the group that was most exposed to the knowledge about the change (they went through the class explaining the change). This group also would be the group that would be most involved in the change (they would have to lead their followers through the process). Thus, if there is a linkage, we could find it with this group. Therefore, we think this setting provides a suitable context to study our question of the link between knowledge about change programs and resistance to the change.

The rest of this paper flows as follows. Next, we discuss the relevant literature on organizational change paying particular attention to the literature on why change fails and resistance to change. Then we discuss our empirical site the Botswana Public Service. This project represents a unique aspect of the overall research on leadership and change being conducted in Botswana. We then present our research question, methodology, data and summarize our results. We conclude with the discussion and implications for both academics and practitioners.

Organizational change

The study of why change efforts fail has benefited from increasing interest in the academic and practitioner literature. It is estimated that up to 70 percent of new programs – from re-engineering, installing new technology to changing culture fail (Hammer and Champy, 1993; Beer and Nohria, 2000). Beer *et al.* (1990) discussed why change efforts do not produce change. They state that many senior managers think change will occur through company-wide training programs and that employee

behavior is changed by altering a company's formal structure. However, they found the opposite to be true:

The greatest obstacle to revitalization is the idea that it (the change) comes about through company-wide change programs, particularly when a corporate staff group such as human resources sponsors them ... formal organization structures and systems cannot lead a corporation renewal process (pp. 158-9).

From their six-company, four-year study of organizations, they developed a six-step approach to organizational change. The first three steps deal with creating a shared vision, the fourth step is to spread the change through the organization, the fifth step is to institutionalize the changes made, and the last step is to monitor the results. While they talk about ensuring that there is a shared understanding of the vision, their work is silent about having a shared understanding of the changes required to reach the vision. Kotter (1995) also discusses why change efforts fail. From his experience with more than 100 companies, Kotter suggests change fails for eight reasons. Four reasons deal with not having a well-crafted and communicated vision. The other four reasons deal with not having a compelling reason to change, not having the right structure in place, not having a guiding coalition, and not having the right culture. Attaran (2000) furthers this literature by suggesting eight reasons why re-engineering efforts fail. Two of his reasons are related to this study: lack of proper training and failure to cope with people's resistance.

While many studies focus on the factors impacting change, the link between resistance and change has been only explored to a limited extent. Jaffe *et al.* (1994) provide a four-stage model of change: denial, resistance, exploration, and commitment. Isabella (1990) identifies trigger events that enable individuals to move between stages associated with change. Armenakis *et al.* (1999) explore reducing resistance to change through incorporating the following components into the change message: the need for change, the ability to change, the valence for the change, the existing support for the change, and appropriateness of the change. Burnes and James (1994) found that organizational context is a critical factor to evaluate in planning for change and resistance to change. For our study, we are most interested in the resistance phase of change and the role of knowledge or information on resistance:

In resistance, people try to preserve their sense of meaning and identity, by retaining familiar ways of doing things ... the resistance phase is about loss: loss of control, familiar attachments, community, and structures ... During resistance, people feel worse, stress is higher and performance is at lower levels (pp. 171-2).

Previous research has suggested a link between knowledge or information and resistance to change. Löwstedt (1993) found that employees' view of an organizational change was personal. The view was based upon each individual's knowledge and experience of organizations and organizing, and their interactions with others. Miller *et al.* (1994) found that the quality of information employees received impacted their willingness to change. Information that was seen as useful and timely concerning the change favorably impact employee attitudes about the planned change. Judson (1991) argued that there are six factors that determine an organization's resistance to change:

- (1) feelings about change in general;
- (2) conflict between the existing culture and what is to be changed;

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- (3) the number of unanswered questions that arise;
 - (4) historical events;
 - (5) the extent that the change threatens basic needs; and
 - (6) the extent the change impacts feelings of self-worth or self-importance.

This study continues the exploration of how knowledge about the change impacts resistance to change. Specifically, we extend Miller *et al.*'s (1994) work on information and change. However, instead of focusing on the information given to managers, we focus our attention to the understanding that a manager has about the information given. As such, we have one formal research question:

RQ1. Does a respondent's understanding of an organizational change process reduce their resistance to the change?

In the next section we discuss our empirical research setting.

Botswana Public Service

This research paper is part of a larger research study examining the relationship between leadership and change in the Botswana Public Service (see Hacker and Washington, 2003, 2004 for a fuller discussion of the changes occurring in Botswana). Botswana is located in southern Africa between Zimbabwe, South Africa and Namibia. Although it has a long history as a British protectorate, Botswana was granted independence in 1966. While still classified as a developing country on some reports, Botswana is the largest exporter of gemstone diamonds in the world and the largest exporter of beef to the European Union (www.gov.bw). In line with their 50th anniversary as a nation, Botswana has created their Vision 2016. This vision for the country encompasses goals for each of the 16 ministries, parliament, the national police, and the military. To help achieve the vision, Botswana has begun a nation-wide effort to implement a PMS. Similar to TQM in the US, PMS is designed to provide systemic thinking to implement change. In the fall of 1999, Botswana started a program to train its top non-elected personnel in understanding the vision and in understanding how PMS can be used to implement the vision.

Botswana provides an ideal site to study resistance to change for five reasons. First, the country is undergoing tremendous change. Vision 2016 includes targets for everything from economic development, police statistics, literacy rates, to national security and health. Second, the tools used in PMS to implement change are a significant change to how managers currently accomplish their work. Where the government would fit Weber's ideal-type of bureaucracy (Weber, 1978), implementing PMS will require different skills and capabilities than required in a traditional bureaucracy.

Third, the change has major implications for the leaders of the organizations. Thus, understanding the senior managers' attitudes and beliefs about the change is crucial because if the senior managers do not think the change process will be successful, then they will have a hard time convincing their subordinates to implement the change process. Fourth, given the magnitude of the change, we can not only obtain ample data to empirically answer our issue; we also are assured of having sufficient variation on both our respondents and our question of interest. Lastly, given our focus on one

country and one industry (government employees), we can minimize the variation normally caused by cultural and industry differences.

Methodology

Data

We analyze the relationship between knowledge and resistance to change through administering surveys to 296 senior-level managers in the Botswana Public Service. Of this number, 219 were secondary school heads (the equivalent of high school principals and junior college presidents) and 77 were senior-level managers in the MMEWA. Owing to incomplete surveys, we had a total of 259 usable surveys.

The survey instrument collected demographic (age, sex, number of years working in the government), leadership, and perception data about implementing PMS. While several authors have developed taxonomies of leadership, we use Quinn's competing values framework to examine leadership roles since this framework has been validated and used to study leadership (e.g. Quinn *et al.*, 1996) as well as overall organizational effectiveness (Quinn and Rohrbaugh, 1983). The underlying theoretical model of this perspective is that effective leaders are those who have the cognitive and behavior capacity to recognize and react to paradox, contradiction, and complexity in their environments. For this study, we measure leadership to control against a claim that the relationship between knowledge about the change and resistance to the change is mediated by leadership; the better a leader a person is, the more they will understand change and the less resistant they will be to the change.

The eight roles are descriptive of the competing roles or expectations that a leader might experience, applicable to leadership positions at any level of the organization, and are broad classifications of behavior required of leadership at different situations. The respondents were asked to rate how often they engaged in the enlisted behavior over the past six months. A seven-point Likert scale was used to record their answers. The score on the eight roles were then averaged together to form one score that ranged from 2.8 to 6.8.

Control variables

We control for a set of other possible factors that could impact an individual's resistance to change. Age is a continuous variable that codes the age of our respondents. This controls for the conventional wisdom that older people are more likely to resist change. Years of work in government is a continuous variable that measures the number of years our respondents have worked for the Botswana Government. Male is a dichotomous (1/0) variable that measures the gender of the respondent. It takes a value of 1 if the respondent is a male or 0 if the respondent is a female. School-head is a dichotomous variable that measures the occupation of the respondent. It takes a value of 1 if the respondent is a school head or 2 if the respondent is a manager of MMEWA. Leadership score was the average score a respondent received from the leadership questionnaire. This variable controlled for the possible argument that the better a person's leadership skills the less resistant that person might be to change.

Independent variable

Our independent variable of interest is “understand the change”. This is the average of the respondents answer on two statements from the survey. The first statement was “I understand PMS” and the second statement was “I understand how to implement PMS in my ministry”. Chronbach’s α for these two statements was 0.86 indicating they were measuring the same construct. An α score of 0.70 is considered acceptable (Nunnally and Berstein, 1994).

Dependent variables

In this study we measured resistance to change three ways: how excited a respondent was about the change effort; if a respondent thought the change would fail; and, if a respondent wished the change effort would have never occurred. The first dependent variable is being excited about the change. This variable measures how excited the respondents were about implementing PMS in their organization. This variable is the average of six different statements from the survey. Chronbach’s α for these six questions was 0.79 indicating consistency between these statements. The second dependent variable is believing the change will fail. This variable measures the respondent’s perception of the success of implementing PMS. This variable is derived from two statements from the survey that had a Chronbach’s α of 0.72. The third dependent variable is belief that we should never have done change. This variable, derived from the statement on the survey, “I wish my ministry had never implemented PMS”, measures a respondent’s attitude about undertaking the change effort.

We chose to measure resistance to change this way in order to minimize the social desirability of the question. We felt that if we had stated “will you resist this change effort” that respondents would have answered no. However, we recognize that this is a crude measure and that further research needs to be conducted to obtain better measures of resistance to change. We analyze the data using ordinary least squares linear regression in STATA. Table I presents the summary statistics of the variables and their correlations.

Results

We began our analysis by conducting tests of collinearity. A measure for collinearity in regression models is the variance inflation factor (VIF), which should be smaller than 10 for all variables (Belsey *et al.*, 1980). This criterion was easily met for all variables since our tests indicated that a mean variance-inflation factor of 1.55 with the highest being 2.33. Another measure of collinearity, the condition index, was below the critical value of 30 (Belsey *et al.*, 1980, p. 105). This criterion was also satisfied since our tests indicated that the condition index ranged from 1.00 to 3.20.

Table II presents the results of our first model examining the relationship between a respondent’s understanding of the change and a respondent’s assessment of how excited they are about the change. Model 1 presents the results of the control variables. “Leadership score” was positive and significant and “school head” was negative and significant. We also see that the model has an R^2 of 0.031 and is significant at the $p < 0.05$ level. Model 2 presents the results of our analysis with the control variables and our independent variable, “understand the change”. This variable is significant, $p < 0.001$ and the R^2 of this model improves to 0.261 and is significant at $p < 0.001$.

Table I.

Variable	Average	Standard deviation	1	2	3	4	5	6	7	8
1	Happy about the change	5.3	0.9							
2	Should never have done change	1.8	1.3	-0.36						
3	The change will fail	2.1	1.2	-0.43	0.36					
4	Understand the change	4.7	1.1	0.46	-0.23	-0.34				
5	Leadership score	5.4	0.7	0.11	0.00	0.00	0.18			
6	Age	43.8	5.7	-0.13	0.20	0.02	0.02	0.02		
7	Male	0.7	0.4	-0.01	0.00	-0.03	0.05	0.02	-0.01	
8	Years' work in government	19.2	5.8	-0.07	0.10	0.01	-0.04	0.03	0.75	-0.14
9	School head	0.7	0.4	-0.18	0.06	0.10	-0.10	0.11	0.32	-0.01

Notes: $n = 259$; correlations > 0.17 ; (< -0.17) significant at $p < 0.01$

	Variables	Model 1	Model 2
1	Understand the change		0.387*** 0.044
2	Leadership score	0.175* 0.080	0.050 0.041
3	Age	0.012 0.014	-0.025* 0.013
4	Male	0.056 0.129	-0.092 0.113
5	Years' work in government	-0.001 0.014	0.011 0.013
6	School head	-0.295* 0.129	-0.140 0.114
7	Constant	5.210*** 0.625	4.339*** 0.556
	Adj. R^2	0.031	0.261
	Change in R^2		0.230
	Degrees of freedom	5	6

Table II.
Models predicting how excited individuals are about the change

Notes: $n = 259$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Standard errors below coefficients

This suggests that there is a strong relationship between respondents who understand the change and respondents who stated they were excited about the change.

Table III presents the results of our second model examining the relationship between a respondent's understanding of the change and the respondent's assessment of if they think the change will fail. Model 3 presents the results of the control variables. None of the control variables is significant in this model and the overall model is also not significant. Model 4 presents the results of the linear regression analysis with the independent variable, "understand the change" included. In this

	Variables	Model 3	Model 4
1	Understand the change		-0.406*** 0.064
2	Leadership score	-0.020 0.111	0.113 0.105
3	Age	-0.007 0.179	0.006* 0.019
4	Male	-0.110 0.179	-0.071 0.167
5	Years' work in government	0.000 0.020	-0.012 0.019
6	School head	0.323 0.179	0.159 0.169
7	Constant	2.497*** 0.682	3.397*** 0.816
	Adj. R^2	0.000	0.129***
	Change in R^2		0.129
	Degrees of freedom	5	6

Table III.
Models predicting how individuals think the change will fail

Notes: $n = 259$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Standard errors below coefficients

model, the variable, “understand the change”, is negative and significant ($p < 0.001$) and the R^2 for this model is 0.129 and significant ($p < 0.001$). This provides additional support that respondents who understand the change are also less likely to state that they think the change effort will fail.

Table IV presents the results of the analysis measuring the relationship between understanding the change and wishing the change had never been implemented. Model 5 shows the results of the control variables. Only age is significant and this model is modestly significant ($p < 0.05$) with an R^2 of 0.028. Model 6 shows the results with the independent variable, “understand the change” included. This variable is negative and significant ($p < 0.001$) and the model is significant ($p < 0.001$) with an R^2 of 0.098. This provides support that respondents who understand the change are also likely to not say they wish the ministry had never implemented PMS.

Discussion and implications for management development

Our overall results suggest that there is a strong relationship between respondents that understood the change and respondents’ feelings about the change. This study allowed us to answer our original research question: are individuals that state they do not understand organizational change more likely to resist the organizational change, than individuals that state they do understand the change? Our findings suggest that those respondents who understood the change were more likely to be excited about the change, were less likely to think the change would fail, and were less likely to wish that the change had never occurred. While we recognize that neither of our three dependent variables directly tested if the respondent would resist the change, we contend that stating they were not excited, thinking it would fail, and wishing the change would not have been implicated are three outcomes and beliefs consistent with someone who would have a negative attitude towards the change. While we are pleased with the results, we do not suggest, nor do we imply, that understanding the change is the only

	Variables	Model 5	Model 6
1	Understand the change		- 0.332*** 0.073
2	Leadership score	- 0.010 0.122	0.099 0.120
3	Age	0.063** 0.020	0.074*** 0.021
4	Male	0.005 0.196	0.037 0.189
5	Years’ work in government	0.018 0.022	- 0.028 0.021
6	School head	- 0.017 0.197	- 0.15 0.192
7	Constant	- 0.504 0.946	0.229 0.259
	Adj. R^2	0.028*	0.098***
	Change in R^2		0.070
	Degrees of freedom	5	6

Table IV.
Models predicting if
individuals never wanted
the change

Notes: $n = 259$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; Standard errors below coefficients

factor in examining resistance to change. However, based upon our results, we feel the link between knowledge and resistance to change warrants further inquiry.

Equally important is our choice of sample. Given that the respondents were in some leadership capacity, the connection between knowledge and resistance is even more crucial. For example, if the school head did not understand the change and subsequently wished the change had never occurred, thought it would fail, and was not excited about the change, then we would argue that they would have a difficult time convincing the teachers to comply with the changes. While they might not sabotage the change effort, it would be hard to understand how they would be “leading the charge” of the new changes.

What is also surprising is that the leadership score is not a significant predictor of resistance to change. We found that being a better leader (as measured by a high score on Quinn’s leadership survey) did not make a manager less resistant to change. This suggests that resistance to change might be more an individual issue and not a managerial or leadership skill development issue.

Limitations of the study

There are some methodological issues to consider when interpreting these results. One issue to consider is that the data for this study was self-reported and was collected in a non-experimental setting. The phenomena of interest – a self-reported understanding of the change and its impact on the change – can only be fully understood through the study of managers of change in real organizations. For this study, managers rated themselves. While there are usually worries of same-source bias, given that the outcome has a negative connotation (social desirability would suggest that all the managers would have said they understand the change and would have scored themselves low on thinking the change would fail). Future studies could increase validity by empirically testing the understanding managers think they have.

Implications for management development

This research contributes to the discussion as to why change efforts fail and how managers can increase the likelihood of their change effort’s success. Instead of general answers that individuals resist change, we argue that academics and practitioners need to “peel the layers of the onion” to understand why managers may resist change. This article can help practitioners understand that before implementing change, they should make sure that their managers actually understand the change. Beer *et al.* (1990) and Kotter (1995) have done an excellent job of reminding us of the importance of understanding the vision in regards to understanding change. Kotter goes on to remind us that we must also have a detailed understanding of why there is a need to change. Armenakis *et al.* (1999) describes the critical components of the message signaling a need to change. Isabella (1990) highlights events that facilitate individual movement through the stages of change. Attaran (2000) warns us of the importance of getting personnel involved in the change effort. To these valuable insights we have argued that there must also be a detailed understanding of what the change is. Specifically, how will the manager’s role be different? What skills, behaviors, or characteristics will be needed to accomplish the change? What are some of the key processes that will need to be developed to accomplish the change? These are some of the types of questions

that we think need to be addressed to help managers develop a better understanding of the changes.

To ensure this detailed understanding exists across the organization, managers can conduct knowledge checks, beginning first with themselves. Is there a shared understanding of the change with those initiating the change? Next, lower levels of management and change agents can be checked to ensure shared understanding. These knowledge checks can range from having the managers articulate what the change is, how it will impact their organization, how it fits in the overall strategy, to having the manager take a “pen-and-pencil” test on how to implement the change. All of these suggestions will help to increase the level of understanding the manager has about the change. This, we conclude, will go a long way to helping the managers feel less dreadful and more excited about the change which will lower their resistance towards the change and make the change effort more successful.

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