Factors affecting “resistance to change”: an explanatory study conducted in the healthcare sector

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Abstract: “Resistance to change” has significantly concerned the research community over the last 15 years, since it is proven to be the main failure cause of all change initiatives, especially when it comes to business process reengineering. The present study examines this phenomenon from a managerial point of view, pointing out the main factors affecting resistance to change in the healthcare sector. The survey was conducted in 6 Greek hospitals, 3 of which are University Hospitals, with a total participation of 134 managers. A novelty of the present study is the establishment of a theoretical link between the concepts of “public sector marketing” and “change management”.

Keywords: Change management, public-sector marketing, healthcare management, Business Process Reengineering (BPR), empirical research.

1. Introduction

Applying changes in an organization is a prerequisite for ensuring its long-term viability. Change implementation results in the diversification of the initial status (Agboola and Salawu, 2011). Employee effort that aims to preserve the status quo and avoid any possible changes to the appointed tasks is defined as “resistance to change” (Carr et al., 1996).

In the context of the present study, the concept of “organizational change” mainly refers to “Business Process Reengineering” (BPR) efforts. According to Hammer and Champy (1993), BPR is the fundamental rethinking and radical redesign of business processes and organizational structures, in order to achieve significant and continuous improvement. However, other studies have proven that most of BPR initiatives fail (e.g. Grady and Grady, 2013; Buick et al., 2015). More specifically, the failure of most BPR efforts is attributed to “resistance to change” (Ford et al., 2008; Fuchs, 2011; Wittig, 2012; Grady and Grady, 2013; Georgalis et al., 2015).
During the last decade, managing “resistance to change” is an issue that has fairly concerned the international research community. However, most of the studies that have been conducted seem to include several limitations and numerous gaps. More specifically, researchers very often investigate the effect of specific factors on “resistance to change”, while the investigation of other acknowledged factors seems to be omitted (Bhattacherjee and Hikmet, 2007; Georgalis et al., 2015). Moreover, many of the existing empirical studies collect data from a single organization (company) (e.g. Bhattacherjee and Hikmet, 2007; Escobar-Rodriguez and Bartual-Sopena, 2014; Hanif et al., 2014; Georgalis et al., 2015; Ming-Chu and Meng-Hsiu, 2015). In such cases, the generalizability of the results is significantly diminished (Ming-Chu and Meng-Hsiu, 2015). Finally, another limitation that has been pointed out by Hanif et al. (2014) refers to the data collection process itself. More specifically, in many empirical studies, the questionnaires are distributed via mail; hence there is a lack of direct contact between researchers and respondents. This issue complicates the communication between the two parties and, therefore, the understanding of the actual situation is limited.

The present study (a) develops and (b) empirically tests a conceptual framework investigating the factors having an effect on “attitude towards change” and “resistance to change”. The study is conducted on the Greek healthcare sector. Key respondents are managers of large Greek hospitals. This research setting was selected because of two main reasons: (a) public healthcare in Greece, just like in many other countries with similar characteristics, requires immediate change, (b) “resistance to change” among employees of Greek (state-owned) hospitals is quite significant.

As mentioned above, the present survey develops and empirically tests an original conceptual framework (research model). The proposed conceptual framework examines the dynamics between eight research factors. Six of these factors are independent (“personality traits”, “perception about BPR”, “job satisfaction”, “management-employee relationship”, “disposition towards change”, “anticipated impact of change”), while two factors are dependent (“attitude towards change”, “resistance to change”). The present study continues on the same path of a previous one (Amarantou et al., 2016), which pointed out the reasons why employees of Emergency Departments (ED) of Greek hospitals resist change.

The present study attempts to make several contributions. Firstly, it examines the cooperativeness of public servants in a possible change. The existing literature has very seldom examined such an issue, especially in a context of severe economic crisis. More specifically, the Greek economic crisis has resulted in cutback of salaries, staff and resources inefficiencies, and poor working conditions. All these factors make employees unwilling and frightened in accepting any kind of change. Secondly, it instigates the perceptions of public hospital managerial employees concerning change that derives from business process reengineering programs. Also, this approach is unique in the international literature. Moreover, investigating “resistance to change” from the perspective of managers is considered to be critical, since they are the ones that make all the important managerial decisions and significantly influence the overall organizational climate / culture. Additionally, the present study is conducted in multiple public hospitals, each with different characteristics, thus enhancing the generalizability of the empirical results. Finally, the following section provides arguments that establish a link between “public sector marketing” and “change management”.

1.1. “Public sector marketing” and “change management”

The present study argues that “public sector marketing” includes an understudied and overlooked “change management” perspective. More specifically, it is argued that the implementation of marketing strategies by public organizations creates the need for organizational change. The link between “public-sector marketing” practices and change initiatives in public organizations has been only implied in the relevant literature. The present study attempts to establish a distinct theoretical link between these two concepts.

“Public-sector marketing” has gained interest during the last twenty years (Chew and Vinestock, 2012; Bouzas-Lorenzo, 2010). Despite that, a universal definition does not yet exist. According to the most recent, commonly-accepted definition of marketing, offered by the American Marketing Association (2013), marketing is “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large”. The present study slightly adapts this definition, arguing that “public-sector marketing” refers to the exchange of offerings between a public organization and various groups of stakeholders (e.g. citizens, taxpayers, employees, partners, society). Bovaird (2003) also argues that stakeholders in “public-sector marketing” include many groups that are not usually included in the marketing strategies of private companies (e.g. taxpayers).

There are several reasons that have exponentially increased the importance of “public-sector marketing” (Bouzas-Lorenzo, 2010; Chew and Vinestock, 2012; Lamb, 1987; McLaughlin et al., 2009; McLaughlin, 2002; Talbot and Talbot, 2011): (a) massive reduction in government funding, (b) reduced level of citizen satisfaction, (c) reduced level of citizen participation, (d) greater dependence on various fees and charges, in order to offset costs associated with the provision of public services, (e) higher expectations from citizens, (f) adoption of the “New Public Management” (NPM) concept: conversion of citizens into clients. All of these factors are, directly or indirectly, associated with the role of citizens (customers). Therefore, the significance of “public-sector marketing” is further underlined. In that direction, the use of “public-sector marketing” strategies aim at: (a) developing cost-effective ways to respond to citizen needs, (b) increasing the level of customer satisfaction and participation, (c) decrease the risk associated with the provision of public services (Grigorescu, 2006).

Summing all the above, it is concluded that modern public organizations need to increase the adoption of “public-sector marketing” strategies. But, according to various studies (e.g. Andreasen et al., 2005; Boenigk and Möhlmann, 2016; Zaheer and Rashid, 2016), the adoption of such strategies from public organizations is quite difficult, because of various constrains (e.g. enhanced bureaucracy, lack of appropriate systems, lack of marketing culture, etc). Therefore, the implementation of “public-sector marketing” strategies will inevitably result in various organizational changes. Or, in other words, organizational change is a significant prerequisite of marketing initiatives in public organizations. Either way, these two concepts seem to be highly correlated.

This argument has only been indirectly implied in previous studies (Barbu, 2011; Boenigk and Möhlmann, 2016; Helmig and Thaler, 2010; Laing, 2003; McMahon, 2002), but it has not yet been properly articulated. More specifically, the literature generally suggests that organizational change is the anticipated long-term effect of public marketing models. Under that rationale, Levy and Zaltman (1975) consider organizational change as a long term effect of “public-sector marketing”. Their argument is, moreover, supported by a recent study (Zaheer and Rashid, 2016).
2. Literature review

Due to the increasing contemporary need for organizational change, more and more researchers investigate the concept of “resistance to change”. According to Yue (2008), resistance to change means that people express their denial to cooperate and adapt the new way of thinking or acting. Resistance can be intentional, inadvertent, concealed or direct. Moreover, according to Atkinson (2005), resistance results from various feelings like fear and stress, while it can be also experienced passively. The fact that it can appear suddenly, makes its management much more challenging.

In the workplace, changes are inevitable when an organization wishes to respond to the competition (Ferlie et al., 2005). Ming-Chu and Meng-Hsiu (2015) highlighted the need for implementation of change programs in organizations, in order for them to be able to survive and expand into a dynamic environment. In such cases, resistance is a common phenomenon, appearing when employees hesitate to take over new responsibilities and change the way they usually operate. According to Morris and Punnington (1998), this unwillingness is not an irrational feeling and, in most cases, there is a specific reason behind its occurrence. Therefore, in order to successfully implement the desired changes, the management of an organization must be able to understand the antecedents of employee resistance to change (Furst and Cable, 2008). On that vein, Ming-Chu and Meng-Hsiu (2015) argue that top management should focus at managing employee resistance to change, since it significantly obstructs the proper implementation of change initiatives.

Significant research efforts have been made in order to point out the main factors affecting “attitude towards change”. Oreg (2006) refers to employee “resistance to change” as a three dimensional phenomenon (cognitive resistance, affective resistance, behavioral resistance), the aspects of which are influenced by different factors. These factors may be related either to the personality of the employees or to the broader context of their job.

Many researchers (e.g. Fuchs, 2011; Nesterkin, 2013; Georgalis et al., 2015) argue that “attitude towards change” and consequently “resistance to change” are related with employee perception of justice and fairness. More specifically, according to Georgalis et al. (2015), leader-member exchange, employee participation in the change process and the level of the provided information, affect the perception of employees about the justice in the working environment.

Various other studies (e.g. Mlay et al., 2013; Liu and Seddon, 2009) have focused on managing “resistance to change” in the workplace. According to Crowe (2002), employees are afraid to express themselves and discuss their emotions during a change process, something that creates a silent climate of general discontent inside the organization. Management can face these problems by treating the personnel equally, providing support during the transition period and encouraging the participation in the decision making process (Mlay et al., 2013).

Furst and Cable (2008) examined the relationship between employee psychology and “resistance to change”. They concluded that when adequate assistance is provided to employees and when employees feel that the organization has an active interest in their wellbeing, their overall psychology improves. Improved psychology makes employees more receptive towards imminent changes and, thus, reduces the level of their resistance. Additionally, perceived organizational support has also been found to decrease “resistance to change”, since employees are identified with the overall targets of the organization (Ferlie et al., 2005; Ming-Chu and Meng-Hsiu, 2015).
3. Conceptual framework

In order to develop the conceptual framework of the present study, an extensive literature review analysis, using the ‘Scopus’ database, was initially conducted. More specifically, the antecedents of “attitude towards change” and “resistance to change”, which constitute the two main dependent factors of this study, were identified. After thorough examination, the most important of these factors (antecedents) were selected and, finally, incorporated in the proposed conceptual framework (see Figure 1). Essentially, the proposed conceptual framework is a composition of factors that have been used in previous studies of the field. All of these empirical studies have been published in highly esteemed journals.

The independent factors of the present study are: “personality traits” (Bovey and Hede, 2001a,b; Stanley et al., 2005; Oreg, 2006; Erturk, 2008; Pessoa, 2008; Mayer et al., 2010; Wittig, 2012; Nesterkin, 2013), “perception about BPR” (Giangreco and Peccei, 2005; Stanley et al., 2005; Fedor, 2006; Peccei et al., 2011; Mlay et al., 2013), “job satisfaction” (Oreg, 2006; Kwahk and Lee, 2008; Peccei et al., 2011; Mlay et al., 2013), “management-employee relationship” (Oreg, 2006; Mlay et al., 2013), “disposition towards change” (Oreg, 2006; Kwahk and Lee, 2008), “anticipated impact of change” (Oreg, 2006; Kwahk and Lee, 2008). On the other hand, the dependent factors are: “attitude towards change” (Peccei et al., 2011) and “resistance to change” (Peccei et al., 2011; Neuman, 2003).

“Personality traits” include defensive mechanisms, irrational thoughts (Bovey and Hede, 2001a,b), and personal characteristics of each employee (Stanley et al., 2005). All these dimensions collectively influence the attitude of employees towards the expected organizational change. As it has been thoroughly indicated in the relevant literature, managerial employees who have strong defensive mechanisms, irrational thoughts and conservative personal characteristics will probably have a negative “attitude towards change”, and vice versa (Erturk, 2008; Nesterkin, 2013). Thus, it is hypothesized:

**Hypothesis 1**: “Personality traits” have a direct positive effect on “attitude towards change”.

The perception about the business process reengineering (BPR) initiatives plays a significant role in the way that employees react to change. According to Ruth and Maaja (2004), employees take under serious consideration all the privileges they think they can obtain from the reengineering of operations (Ruth and Maaja, 2004). When employees perceive that they will gain privileges from a BPR initiative, they tend to have a positive “attitude towards change” (Ruth and Maaja, 2004, Mlay et al., 2013). On the same vein, when employees feel comfortable about the environment that will emerge after the implementation of the reengineering process, they also tend to have a positive “attitude towards change” (Neuman, 2003).

**Hypothesis 2**: “Perception about BPR” has a direct positive effect on “attitude towards change”.

“Job satisfaction” includes two dimensions: (a) the internal satisfaction employees receive from their job and (b) the fear of losing their power/prestige after the implementation of the reengineering process (Oreg, 2006; Ruth and Maaja, 2004). When managers are satisfied with the current working conditions and their position (power) within the hospital, they tend to have a negative “attitude towards change”, since every change constitutes a possible threat to their overall status. Therefore, it is hypothesized:

**Hypothesis 3**: “Job satisfaction” has a direct negative effect on “attitude towards change”.
Before upper management starts to implement reengineering initiatives, it should examine the feasibility of the expected changes. After all, reengineering initiatives are destined to fail when they do not have the full support of all employees. A healthy relationship between managers and employees requires support, faith and dedication (Stanley et al., 2005). When managers inspire confidence to their subordinates, it is easier to implement changes. Hence, it seems that enhanced “management-employee relationships” have a positive effect on “attitude towards change”.

**Hypothesis 4**: “Management-employee relationship” has a direct positive effect on “attitude towards change”.

“Disposition towards change” refers to the tendency towards accepting changes that occur in the working environment. Without any doubt, the inclination of different people towards accepting or rejecting change initiatives differs from one another (Oreg, 2006). Employees with a positive “disposition towards change” will very likely have a positive “attitude towards change”, while their “resistance to change” will be decreased (Oreg, 2006; Kwahk and Lee, 2008).

**Hypothesis 5**: “Disposition towards change” has a direct positive effect on “attitude towards change”.

**Hypothesis 6**: “Disposition towards change” has a direct negative effect on “resistance to change”.

Respectively, employees with a positive “attitude towards change” will very likely have lower “resistance to change” (Wittig, 2012). Hence, it is hypothesized:

**Hypothesis 7**: “Attitude towards change” has a direct negative effect on “resistance to change”.

The “anticipated impact of change” refers to the organizational benefits or losses that employees expect to occur from the implementation of the BPR initiatives. When the “anticipated impact of change” is thought to be negative, employees will maintain a negative “attitude towards change” (Kwahk and Lee, 2008; Peccei et al., 2011) and resist its implementation (Oreg, 2006), and vice versa.

**Hypothesis 8**: “Anticipated impact of change” has a direct positive effect on “attitude towards change”.

**Hypothesis 9**: “Anticipated impact of change” has a direct negative effect on “resistance to change”.

![Figure 1: The proposed conceptual framework of the study](image-url)
4. Research methodology

4.1. Methodological approach

The present research is applied, since it offers answers to specific management problems. Moreover, it is empirical (based on primary data), explanatory (examines cause and effect relationships), deductive (tests research hypotheses) and quantitative (analyses quantitative data that are collected with the use of a structured questionnaire).

4.2. Data collection

Initially, nine hospitals were officially contacted in order to participate in the present study, while only six finally accepted to do so. Among these six hospitals, three are located in Thessaloniki and other three in other cities of Northern Greece. Primary data were collected with the use of personal contact. The research period lasted three months (September-November 2015).

The final sample consists of 134 managerial employees. These managers have different educational background, since no other criteria were used for participating in the present study. The response rate was quite low, indicating the disdain and indifference of public sector employees towards scientific research. This attitude may also be linked to the field of this study, namely “resistance to change”.

4.3. Measurement

The measurement of the research factors was conducted with the use of multiple questions (items) that were adopted from the international literature. These items were fully adjusted to the Greek reality. All questions were translated to Greek and then back to English by another person, in order to detect and, consequently, improve any discrepancies. The measurement of all items was conducted using the five-point Likert scale (1=Strongly Disagree to 5=Strongly Agree). Table 1 demonstrates the research factors, the number of items used for their measurement and the studies from which they where adapted.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Adapted from</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality traits</td>
<td>Oreg, 2006; Bovey and Hede, 2001a,b</td>
<td>4</td>
</tr>
<tr>
<td>Perception of BPR</td>
<td>Ruth and Maaja, 2004; Mlay et al., 2013; Al-Ameri, 2013; Neuman, 2003</td>
<td>9</td>
</tr>
<tr>
<td>Job perception</td>
<td>Ruth and Maaja, 2004; Oreg, 2006</td>
<td>5</td>
</tr>
<tr>
<td>Management-employee relationship</td>
<td>Stanley et al., 2005</td>
<td>4</td>
</tr>
<tr>
<td>Attitude towards change</td>
<td>Peccei et al., 2011</td>
<td>4</td>
</tr>
<tr>
<td>Disposition towards change</td>
<td>Ruth and Maaja, 2004; Bovey and Hede, 2001b; Peccei et al., 2011; Neuman, 2003</td>
<td>5</td>
</tr>
<tr>
<td>Resistance to change</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Anticipated impact of change</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>
4.4. Data analysis

Empirical data were encoded and then converted to digital form. For conducting the appropriate analyses, the IBM SPSS 20.0 and IBM AMOS 20.0 software was used. Descriptive statistics were used for analyzing employee characteristics, while the examination of the conceptual framework was conducted using the “Structural Equation Modeling” technique.

5. Results

5.1. Descriptive statistics

The sample consists mainly of women (71.6%), aged between 41 and 55 years (58.2%) or between 25 and 40 years (29.9%), with high level of education (graduates from Universities or Technological educational institutes, 64.2%), with more than 16 years of experience in the same hospital (46.8%), who are mainly office employees (83.6%) or department directors (13.5%).

The analysis of the mean score of the items included in the questionnaire offers some interesting observations. More specifically, managerial employees argue that they would not protest or object possible future changes, while they consider such changes to be necessary for their organization. Furthermore, they claim that they do not fear the implementation of these changes.

Concerning job satisfaction, managerial employees seem to be quite satisfied, while they express their desire to keep working in the same hospital. They also believe that possible future changes will not affect their prestige and responsibilities. Regarding the relationship with their subordinates, they feel that trust is a quite unknown concept. Managers, also, believe that change initiatives are usually under great dispute from most employees.

5.2. Reliability and validity

The questionnaire that was used in the present study was tested for both its content and construct validity.

The control for the content validity was conducted prior to the beginning of the survey and included: (a) consultation with academics of the field, (b) consultation with experienced practitioners, and (c) pilot testing.

To test the construct validity, each research factor was evaluated: (a) for its unidimensionality and reliability (Table 2), (b) for its goodness of fit to the proposed research model (Table 3).

The estimation of the unidimensionality was conducted using Exploratory Factor Analysis (EFA) with Principal Component Analysis. Moreover, Cronbach Alpha was used to measure the reliability of the measurement scales. All tests concluded that the scales used are valid and reliable (see Table 2 for the main results).

For the appropriate statistical analysis, the following measures were examined (Malhotra, 1999; Taher et al., 2010; De Vellis, 1991):

- For determining the appropriateness of the factor analysis the following measures were estimated: (a) the ‘Bartlett’s test of Sphericity’ (it should be statistically significant at the 0.05 level), (b) the statistical test of ‘Kaiser-Mayer-Olkin’ (KMO) (values over 0.8 are satisfactory, while values over 0.6 are acceptable).
- For determining the number of the extracted factors the criterion of ‘eigenvalue’ was used. Factors whose ‘eigenvalue’ is over one are selected.
For testing the significance of the items (questions), their factor loadings were examined. For a sample size of more than 100 observations a loading over 0.5 is considered significant.

For testing the reliability of the factors, the ‘Cronbach Alpha’ measure was used. Values greater than 0.7 are considered to be valid.

### Table 2. Unidimensionality and reliability

<table>
<thead>
<tr>
<th>Factors</th>
<th>KMO</th>
<th>TVE</th>
<th>Factor Loadings</th>
<th>Cronbach a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality traits</td>
<td>0.500</td>
<td>71,259</td>
<td>0.844-0.844</td>
<td>0.591</td>
</tr>
<tr>
<td>Perception of BPR</td>
<td>0.762</td>
<td>61,211</td>
<td>0.700-0.843</td>
<td>0.775</td>
</tr>
<tr>
<td>Job perception</td>
<td>0.584</td>
<td>69,514</td>
<td>0.637-0.926</td>
<td>0.751</td>
</tr>
<tr>
<td>Management-employee relationship</td>
<td>0.612</td>
<td>55,343</td>
<td>0.641-0.898</td>
<td>0.723</td>
</tr>
<tr>
<td>Attitude towards change</td>
<td>0.665</td>
<td>60,895</td>
<td>0.767-0.794</td>
<td>0.661</td>
</tr>
<tr>
<td>Disposition towards change</td>
<td>0.728</td>
<td>59,343</td>
<td>0.676-0.842</td>
<td>0.829</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>0.718</td>
<td>67,604</td>
<td>0.752-0.868</td>
<td>0.839</td>
</tr>
<tr>
<td>Anticipated impact of change</td>
<td>0.687</td>
<td>81,464</td>
<td>0.859-0.944</td>
<td>0.885</td>
</tr>
</tbody>
</table>

The evaluation of the goodness of fit of each research factor to the proposed model was conducted using Confirmatory Factor Analysis (CFA). All tests produced satisfactory results (see Table 3 for the main results). More specifically, the following measures have been examined (Taher et al., 2010; De Vellis, 1991):

- $\chi^2$: It should be statistically insignificant ($p>0.05$). Since it is quite sensitive to sample size, usually the ‘normed $\chi^2$’ is being examined.
- Normed $\chi^2$ ($\chi^2/df$): Values between 1 and 3 are desirable, while values between 1 and 5 are acceptable.
- Construct Reliability (C.R.): It should higher than 0.7.
- Variance Extracted (V.E.): It should higher than 50%.
- RMSEA: It should be less than 0.08.
- CFI / GFI: They both should be higher than 0.9.

### Table 3. Estimation of the goodness of fit

<table>
<thead>
<tr>
<th>Factors</th>
<th>Normed $\chi^2$</th>
<th>C.R.</th>
<th>V.E.</th>
<th>RMSEA</th>
<th>CFI / GFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personality traits</td>
<td>2.17</td>
<td>0.72</td>
<td>66,7%</td>
<td>0.055</td>
<td>0.97 / 0.99</td>
</tr>
<tr>
<td>Perception of BPR</td>
<td>2.44</td>
<td>0.74</td>
<td>68,2%</td>
<td>0.047</td>
<td>0.90 / 0.93</td>
</tr>
<tr>
<td>Job perception</td>
<td>2.55</td>
<td>0.81</td>
<td>80,6%</td>
<td>0.069</td>
<td>0.95 / 0.99</td>
</tr>
<tr>
<td>Management-employee relationship</td>
<td>3.67</td>
<td>0.82</td>
<td>77,6%</td>
<td>0.081</td>
<td>0.90 / 0.90</td>
</tr>
<tr>
<td>Attitude towards change</td>
<td>2.91</td>
<td>0.79</td>
<td>66,4%</td>
<td>0.067</td>
<td>0.99 / 0.98</td>
</tr>
<tr>
<td>Disposition towards change</td>
<td>2.51</td>
<td>0.84</td>
<td>73,8%</td>
<td>0.066</td>
<td>0.95 / 0.96</td>
</tr>
<tr>
<td>Resistance to change</td>
<td>1.33</td>
<td>0.89</td>
<td>66,5%</td>
<td>0.071</td>
<td>0.99 / 0.97</td>
</tr>
<tr>
<td>Anticipated impact of change</td>
<td>1.55</td>
<td>0.79</td>
<td>85,2%</td>
<td>0.048</td>
<td>0.90 / 0.93</td>
</tr>
</tbody>
</table>
5.3. Hypothesis testing

The empirical testing of the proposed conceptual framework was conducted using the “Structural Equation Modelling” technique. This particular multivariate approach was mainly used because of its ability to simultaneously examine a number of depended linear relations, where one or more constructs are both dependent and independent, according to the relationship they belong to (Joreskog and Sorbom, 1996; Kelloway, 1998; Schumacker and Marcoulides, 1998; Dimitriadis, 2010).

For the examination of the research model, various indicators were used. Most of them evaluate the overall fit of the model (Dimitriadis, 2010). These indicators are the Normed $X^2$ ($X^2/df$) (acceptable values 1-5), the RMSEA (Root Mean Square Error of Approximation) (acceptable values <0,08), the CFI (Comparative Fit Index) and GFI (goodness of fit Index) (acceptable values >0,9) and the RMR (root mean-square Residual) (acceptable values <0,05).

The use of SEM methodology resulted in a new modified model (conceptual framework), which is illustrated in Figure 2. As demonstrated in Table 4, the values of the indicators of this modified model are within acceptable limits.

The predictive power of the modified model is quite satisfactory (see Figure 2). More specifically, the included factors are able to explain 43% of the variance in the dependent factor “attitude towards change” and 65% of the variations in the dependent factor “resistance to change”.

<table>
<thead>
<tr>
<th>Table 4. Indicators of the final modified model (SEM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
</tr>
<tr>
<td>$X^2/DF$</td>
</tr>
<tr>
<td>CFI</td>
</tr>
<tr>
<td>GFI</td>
</tr>
<tr>
<td>TLI</td>
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<tr>
<td>RMR</td>
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<td>RMSEA</td>
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<table>
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<tr>
<th>Table 5. Hypotheses testing</th>
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</thead>
<tbody>
<tr>
<td><strong>Hypothesis path</strong></td>
</tr>
<tr>
<td>H1 Personality traits</td>
</tr>
<tr>
<td>H2 Perception about BPR</td>
</tr>
<tr>
<td>H6 Disposition towards change</td>
</tr>
<tr>
<td>H8 Anticipated impact of change</td>
</tr>
<tr>
<td>H9 Anticipated impact of change</td>
</tr>
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</table>

**New suggested relations**

<table>
<thead>
<tr>
<th>Hypothesis path</th>
<th>Effect</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception about BPR</td>
<td>→ Resistance to change</td>
<td>-0,14</td>
</tr>
<tr>
<td>Perception about BPR</td>
<td>→ Anticipated impact of change</td>
<td>0,22</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>→ Anticipated impact of change</td>
<td>-0,15</td>
</tr>
<tr>
<td>Management-employee relationship</td>
<td>→ Anticipated impact of change</td>
<td>0,16</td>
</tr>
</tbody>
</table>
The evaluation of the conceptual framework revealed that five of the nine initial hypotheses are accepted by the empirical data (H1, H2, H6, H8, H9). The other four hypotheses are rejected (H3, H4, H5, H7), while four new casual paths are being proposed (using the “modification indexes” of AMOS). Table 5 summarises the final results. More specifically, it includes the five accepted hypotheses, along with the four new suggested relationships (causal paths).

“Perception about BPR” is highlighted as an extremely significant factor, since it has a direct effect on both dependent factors, namely “attitude towards change” (r=0,39) and “resistance to change” (r=-0,14). Moreover, it also has an indirect effect on both of these factors; more specifically, this effect is mediated through the factor “anticipated impact of change”.

As mentioned earlier, “perception about BPR” captures the belief of employees concerning their personal benefits from the whole reengineering process. When these (expected) benefits increase, employees tend to have a positive “attitude towards change”. Hence, hypothesis 2 is verified by the empirical data.

Additionally, according to the new proposed causal paths of the modified research model, it seems that “perception about BPR” also has a direct effect on “resistance to change” and “anticipated impact of change”. In other words, the better the perception about the future effects of the reengineering process, the less the “resistance to change” (r=-0,14) and the more positive the “anticipated impact of change” (r=0,22).

Moreover, according to the modified research model (see Figure 2), “anticipated impact of change” is a very significant mediating factor. More specifically, it mediates the effects of “perception about BPR”, “job satisfaction” and “management-employee relationship” on both the dependent factors of the study (“attitude towards change” and “resistance to change”). As mentioned earlier, “anticipated impact of change” measures the expected organizational benefits (or losses) from the implementation of the BPR initiatives. Therefore, when change is expected to have organizational benefits, the “attitude towards change” becomes positive (r=0,15) and “resistance to change” (r=-0,64) significantly decreases.
Furthermore, the empirical results verified that “personality traits” and “disposition towards change”, two factors measuring the internal characteristics of managerial employees, have an effect on the concept of change. Firstly, “personality traits” (defensive mechanisms, irrational thoughts, personal characteristics) have an effect on “attitude towards change” \( (r=0.48) \). Secondly, “disposition towards change” (tendency towards accepting changes that occur in the working environment) has an effect on “resistance to change” \( (r=-0.23) \). These two factors cannot be directly enhanced by the management of each organisation, since they are an integrated part of every employee. Nevertheless, proper recruiting techniques should be used, in order to select employees with internal characteristics that are “change friendly”.

The empirical results, also, highlighted the effect (impact) of “job satisfaction” and “management-employee relationship” on “anticipated impact of change” \( (r=-0.15 \text{ and } r=0.16, \text{ respectively}) \).

On the one hand, it seems that satisfied managerial employees perceive that change will have a negative impact on their organisation \( (r=-0.15) \). This is, maybe, because satisfied employees are more concerned about any possible disturbance to the existing level of their status and satisfaction. Despite the fact that hypothesis 3 (“job satisfaction” \( \rightarrow \) “attitude towards change”) is rejected by the empirical data, the relationship between these two factors is indirect; more specifically, the impact of “job satisfaction” on “attitude towards change” is mediated through the factor “anticipated impact of change”.

On the other hand, when managers and employees have a mutual relationship of support, faith and dedication, the anticipated impact of future changes becomes positive \( (r=0.16) \). Despite the fact that hypothesis 4 (“management-employee relationship” \( \rightarrow \) “attitude towards change”) is rejected by the empirical data, the relationship between these two factors seems to be indirect (mediated through “anticipated impact of change”) (see Figure 2 for a schematic representation).

Finally, a very interesting result of the present empirical study is the rejection of the relationship between “attitude towards change” and “resistance to change”. This may be attributed to several reasons: (a) Managerial employees in public bodies, like hospitals, should obey in state laws and official directives. Therefore, regardless their positive or negative “attitude towards change”, they are forced to implement the changes that have been voted in the parliament or dictated by the minister of health; (b) Some managerial employees wish to be liked by their subordinates. Therefore, it is possible that they tend to align their “attitude towards change” with the beliefs of these subordinates. Under that rationale, a manager may have a positive “attitude towards (a specific) change”, but decide to resist its implementation, because this is the wish of his subordinates. Such a mechanism may have interfered with the empirical results of the present study, leading to the rejection of Hypothesis 7; (c) Managerial employees usually act with a professional manner, not allowing personal beliefs and/or fears interfere with their decision making process. If changes must be applied, managers let their hesitations aside, only thinking about the benefit of the organization. Therefore, a manager may have a negative “attitude towards (a specific) change”, but decide not to resist its implementation because the organization may gain some significant benefits.

Nevertheless, the relationship between “attitude towards change” and “resistance to change” should be further examined in the literature of the field.
6. Conclusions

The aim of this study was the investigation of the factors that have an effect on “attitude towards change” and “resistance to change”. More specifically, the research developed a new conceptual framework, consisting of various factors that have been previously used in the literature of the field (Personality traits, Perception of BPR, Job perception, Management-employee relationship, Attitude towards change, Disposition towards change, Resistance to change, Anticipated impact of change).

Therefore, the present study is a synthesis of previous research. To the best of the authors’ knowledge and based on the extensive literature review that was conducted, such a conceptual framework has never been examined in the relevant literature.

“Perception about BPR” and “anticipated impact of change” appear as the two most significant factors of the change process. More specifically, “perception about BPR” has both a direct and indirect effect on both the dependent factors of the study (namely, “attitude towards change” and “resistance to change”).

On the other hand, “anticipated impact of change” has a significant mediating role, since it mediates the effects of three factors (more specifically, “perception about BPR”, “job satisfaction”, “management-employee relationship”), on “attitude towards change” and “resistance to change”. The understanding of these results could be significantly enhanced after examining Figure 2, above.

Moreover, “personality traits” and “disposition towards change”, two factors that are inherent to every employee, have a significant effect on the overall concept of change. Finally, “job satisfaction” and “management-employee relationship” were found to have an indirect effect on the whole change process. More specifically, they indirectly influence both the dependent factors of the study.

Moreover, an important outcome of the present empirical research is the rejection of the causal relationship between “attitude towards change” and “resistance to change”. The fact that this relationship was not accepted by the empirical data, does not mean that it does not exist. It is possible that another factor, not included in the conceptual framework of the present study, mediates that relationship. Therefore, the further examination of this issue, by future studies, is strongly proposed.

In conclusion, it should be underlined that the modified model of the study has significant predictive power. As mentioned earlier, it can explain 43% of the variance in the dependent factor “attitude towards change” and 65% of the variations in the dependent factor “resistance to change”. Therefore, it can be used as a reliable tool for predicting and influencing the success of change initiatives. The results of the study may be generalised in other developed countries with similar economic realities and yield interesting outcomes for practitioners in these countries.

7. Managerial implications

Based on the empirical findings of the present study, the following suggestions are proposed to managers and policy makers.

- **Perception about Business Process Reengineering (BPR):**
  Upper management should focus on the effective communication of the personal benefits of the reengineering program. In that vein, it should be ensured that employees are properly and analytically informed about the changes that will occur to their everyday working life. After all, resistance to change may be enhanced and attitude towards change may be degraded when employees are uncertain about the effect that the change process will have on their job (Wittig, 2012).
FACTORS AFFECTING “RESISTANCE TO CHANGE”: AN EXPLANATORY STUDY CONDUCTED IN THE HEALTHCARE SECTOR

- **Anticipated impact of change:**
  Upper management should also ensure that employees are properly informed about what is about to happen on an overall organizational level. In that direction, the organizational benefits that are expected to occur from the implementation of the BPR initiatives should also be communicated. After all, the fear of the expected changes decreases as information dissemination increases.

- **Job satisfaction:**
  In general, change is easier when employees are satisfied with their working environment. But, on the other hand, change gets harder when employees are afraid to lose their status after the implementation of the reengineering process. Upper management should enhance job satisfaction, but, at the same time, explain that future changes will not pose any threat to the overall status of its employees.

- **Management-employee relationship:**
  Upper and middle management should try to establish and maintain good relationships (trust, feedback etc.) with employees. According to numerous previous studies (e.g. Stanley et al., 2005; Van Dam et al., 2008; Yue, 2008; Boohene and Williams, 2012), such good relationships are critical for reducing resistance to change.

- **Personality traits / Disposition towards change:**
  These two factors are inherent and specific to each employee and, therefore, cannot be directly enhanced by the upper management of every organisation. Nevertheless, organisations should use their human resource competencies, in order to attract and select employees with internal characteristics that are “friendly towards change”.

8. **Limitations and future research**

The time frame, during which this survey was conducted (September-November 2015), could be described as a period of deep economic crisis for Greece. Obviously, this affects citizens, both economically and psychologically, and it is noticeable in their workplace, too. Lately, plenty of changes have been implemented in Greece and since the dire economic condition remains unchanged, people tend to question the effectiveness of change. The word “change” has gained, for the majority of Greek people, a negative reputation. Therefore, it is possible for someone to assume that if the same study was conducted at a different time, its results would probably be quite different.

Taking into account the results of the present study, managerial employee personality traits seem to significantly affect their attitude towards change. However, this is a special factor, since it deals with one’s personality and it cannot be easily defined. For this reason, its further examination is suggested, so that more valid and reliable information can be obtained. Meanwhile, the investigation of the relationship between “attitude towards change” and “resistance to change” is recommended, since a causal relationship certainly exists, but it was not supported by the results of the present study.

**References**


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