Transformational Leadership and Professionals' Willingness to Change: A Multiple Case Study in Project Management Organisations

Stoffers J.[1,*], Mordant-Dols A.[2]

[1]Research Centre of Employability, Zuyd University of Applied Sciences, Heerlen-Maastricht-Sittard, the Netherlands
[2]MEMIC, Maastricht University, Maastricht, the Netherlands

Abstract   Professionals' willingness to change is a necessity for successful implementation of changes in the organisation. This study focused on the influence of a transformational leadership style on professionals' willingness to change. This multiple case study was performed in three project management organisations that had recently implemented a new business information system. The research data were obtained through both qualitative and quantitative data collection. The qualitative investigation revealed that through leading by good example a manager has a positive influence on their employees' willingness to change. However, the quantitative investigation showed that there is no relationship between transformational leadership and the motivational factors of willingness to change. Finally, the study showed that the most important factors of employees' willingness to change are timing, involvement, emotions, necessity, and added value.

Keywords   Transformational Leadership, Willingness to Change, Resistance, Implementation

1. Introduction

Technological revolutions are the order of the day, and they place innovation and renewal high on the business agenda. Research by the Economist Intelligence Unit [1] showed that European businesses do not cope with technological alterations as well as they think they do. According to Devos, Vanderheyden and Van den Broek [2], employees' willingness to change and their capability of innovation primarily stem from their manager. Their influence on their staff gives managers not only a direct influence on the execution of the change process, but indirectly also on its success.

This case study was designed to investigate the relationship between transformational leadership and the willingness to change of professionals in employment. It was a combined qualitative and quantitative study, performed in three project management organisations. These organisations had recently implemented a new business information system. The results of the study were used to compare another project management company on the implementation of their new business information system. They provided handles for how this company may use transformational leadership to influence the willingness to

change of the professionals it employs.

2. Resistance and Willingness to Change

Theories that are frequently referred to in the scientific literature that focuses on changes by implementing IT-systems are Davis' [5] "Technology Acceptance Model" (TAM), the "Theory of Reasoned Action" (TRA) by Fishbein and Ajzen [6], and Ajzen's [7] "Theory of Planned Behaviour" (TPB).

The measurement of the acceptance of IT changes is often based on Davis' [5] TAM. There are two important determinants: (1) perceived usefulness: the degree to which a new system is thought to be better than its predecessor; and (2) perceived ease of use: the degree to which an individual expects the usage of the new system to be simple.

Having a certain attitude and showing a certain behaviour are two different things. Willingness to change is only useful if it actually also leads to behaviour that supports the change. The key author in the area of this relationship is, without a doubt, Ajzen [6]. Together with Fishbein [6], he developed a model for the correlation between attitude and behaviour. This is the theory of reasoned action (TRA). Ajzen improved the original TRA model on the basis of various critiques, and expanded it to three variables (motivational powers) that each exert influence on the intention to behave in a certain way. The third variable is the experienced control over the behaviour or the control over the behaviour as experienced by an individual, and the degree to which someone is

convinced of the attainability of the objective that has been set: Theory of Planned Behaviour (TPB).

Ajzen [7] developed his theory for behaviour and behavioural intentions in general, but according to Metselaar [8] it can also be applied to the area of change management. The attitude towards changes is, for the greater part, determined by the factor of uncertainty that so often comes along. Lewin [9] defined resistance as the employees' development of counter powers against changes. Whenever a certain change is introduced in an organisation, resistance against this change also emerges [10]. Resistance can be regarded as a natural tendency to repeatedly (wanting to) go back to a certain balance [11]. The resistance against changes offered by staff on the shop floor is a critical factor in the failure of these changes [12]. Zaltman and Duncan [13] defined resistance against change as "Every action that is aimed at preserving the current situation, despite the pressure of others to alter this situation".

Whatever appears to be resistance does not always have to be an opposite force of unwillingness, but may also originate from different ideas as to how the new organisation should take shape. Cozijnsen and Vrakking [11] approached the concept of willingness to change in this positive way. Keuning and Eppink [14], like Cozijnsen and Vrakking, made a distinction between the capability of, and the willingness to, change. 'The capability of change correlates with employees' qualitative abilities, whereas their willingness to change far more depends on the mentality that exists at the moment of change." In this study, we used the definition of willingness to change as given by Metselaar, Cozijnsen and Van Delft [15]: *"Willingness to change is an employee's positive behavioural intention towards the*

implementation of a change in the structure, culture, or working methods of an organisation or department, resulting in an effort from this employee to actively or passively support the change process involved."

This study's positive approach did not aim to seek out the ultimate trick whereby managers can 'force through' the organisational change at all cost, but quite the opposite: we wanted to find clues to willingness to change which could then be used by managers together with their staff so that they could jointly arrive at a successful change. On the basis of their own definition, Metselaar and Cozijnsen [12] developed a model for willingness to change (see also figure 1) that can continually be adapted to new scientific findings through evidence-based methodology.

This "model for willingness to change", also referred to as the DINAMO model (Diagnostic INventory for the Assessment of willingness to change among Managers in Organisations), was first developed as a tool to map out the willingness to change among managers, but through a later adaptation it can now also relate to employees. It is based on Azjen's [7] sociopsychological model. Metselaar and Cozijnsen [12] arranged the components that are said to exert influence on the willingness to change according to Ajzen three distinctions. They changed the names of the variables into 'want to', 'have to', 'be able'. The model now has a total of thirteen factors (see also figure 2) that, according to its developers, determine someone's willingness to change: Consequences of work, added value, emotions, involvement, internal pressure, external necessity, know-how and experience, control, information, adaptability, manageability, timing, and complexity of the process.
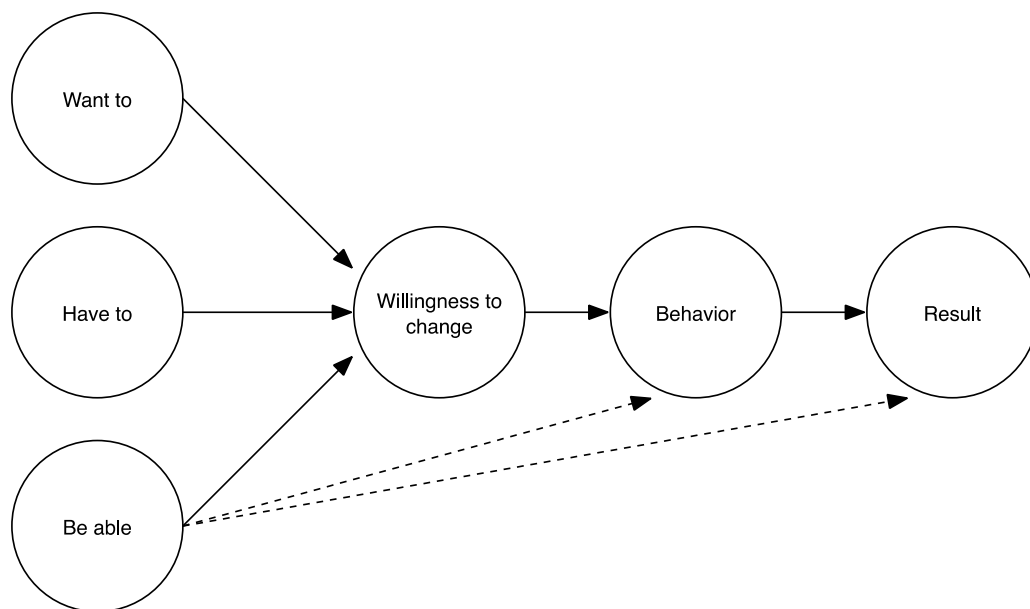
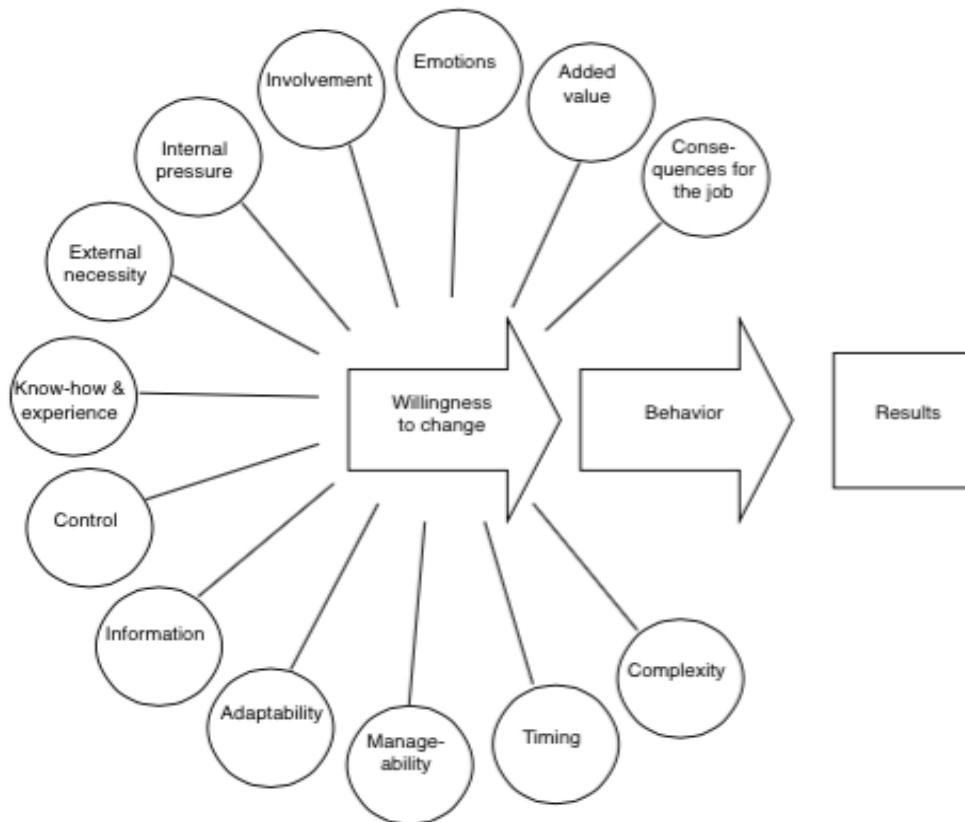**Figure 1.** Willingness to change [12]

Figure 2. DINAMO Model of Change [15]

Kim and Mauborgne [16], finally, asserted that it is essential for any change to involve staff in the planned change at an early stage, provide them with sufficient information, and explain why the change is desirable or necessary.

3. Transformational Leadership

The interaction between supervisors and their employees has rigorously changed over the last few decades, especially in project management organisations where professionals are employed. Supervisors nowadays do not depend only on their legitimate power to influence employees in a certain direction, but they also participate in an interaction with them and attract their interest [17]. Bass [18] distinguished two contemporary leadership styles, transactional- and transformational leadership. Transactional leadership persuades and influences employees by appealing to their individual self-interest. The focal points are basic management processes like focusing on systems, structures and control [19]. This style is reactive and deals with current issues. It also relies on incentives and rewards, punishment, and sanctions for unacceptable performance and the ability of the supervisors to motivate employees by setting targets and promising rewards for the preferred performance [20].

Transformational leadership on the other hand focuses on people, challenges the status quo, looks forward to future developments, inspires to understand and embrace new possibilities (innovation) [19]. Its focus is on being proactive, and on inspiring and motivating employees to work for goals that go beyond their self-interest. Learning opportunities are created, and employees are stimulated to solve problems. The supervisor develops strong emotional bonds with their employees [20].

The Full Range Leadership Theory denotes three typologies of leadership, namely transformational leadership, transactional leadership and laissez-faire or non-leadership. It divides the leadership styles into component behaviours which describe the behaviour practised in that leadership style [21].

[22] described transformational leadership in terms of four dimensions. The first dimension, 'idealised influence', is the degree to which leaders show behaviour that make their followers admire, identify with, and trust them. These charismatic leaders demonstrate strong convictions, have clear points of view, and appeal to their followers by responding to their emotions. Inspirational motivation, the second dimension, reveals itself through a clear vision; followers are drawn to, and feel inspired by, that vision and the leader. The third dimension is intellectual stimulation, where leaders gauge the value of the intellectual capabilities of their subordinates. The fourth dimension is personal consideration. The leaders take the role of their staff's mentor or coach and listen to their worries, needs, and questions. The managers provide feedback, advice, support, and encouragement [23].

According to [18], transformational leaders have a vision and good rhetorical skills and use these skills to develop a strong emotional bond with their followers.

4. Organisational Change and Leadership

Various publications link leadership styles to the success or failure of organisational change. According to Devos et al. [2], employees' willingness to change and their capability of innovation primarily stem from their manager. Managers do not only have a direct influence on the execution of the change process, but indirectly also on its success through their influence on their staff [3, 4]. One factor in this is the trust in the manager, which has a positive influence on the willingness to change [26, 27].

Research by Stuart [28] and Jex and Britt [29] indicated that transformational leadership yields positive effects on employees' willingness to change. They described a successful change manager as a manager with transformational leadership qualities.

Our study focused on the following question: "To what extent does the transformational leadership style as defined in the Full Range Leadership Theory [22] exert influence on employees' willingness to change as defined in the DINAMO model [15]?"

This question was investigated through five hypotheses:

Hypothesis 1: The readiness to change, the necessity to change, and the ability to change are positive predictors of an employee's willingness to change in view of a proposed alteration.
Hypothesis 2: Transformational leadership correlates with an employee's readiness to change in view of a proposed alteration.
Hypothesis 3: Transformational leadership correlates with an employee's necessity to change in view of a proposed alteration.
Hypothesis 4: Transformational leadership correlates with an employee's ability to change in view of a proposed alteration.
Hypothesis 5: Transformational leadership correlates with an employee's willingness to change in view of a proposed alteration.

5. Methodology

5.1. Participants and Procedure

The research strategy employed was a multiple case study according to Santos & Eisenhardt [30]. We opted for this strategy because the three project management organisations that had recently implemented a new business information system provided typical examples of Dutch professionals' willingness to change. Case studies can be used for different types of research purposes, including theory development, in which key variables and their links are identified and described, and theory testing [31].

The research data were obtained through both qualitative and quantitative data collection. A specific way of combining qualitative and quantitative research is to regard the qualitative investigation as a preparation for the quantitative part because the problem needs further clarification. The outcomes of the qualitative investigation were used to make adjustments to the quantitative counterpart.

The first part comprised a semi-structured, qualitative investigation, conducted with the manager responsible for the implementation of the new business information system in the organisation concerned. The second part of the study comprised a quantitative transversal, or cross-section, investigation.

The research population was formed by employees of the selected organisations. All the employees of the participating organisations were invited once to complete a questionnaire that was specifically developed for this study.

Before the quantitative investigation would proceed, it would first be determined whether findings from the qualitative part necessitated any adjustments.

In the qualitative investigation, the managers responsible for switching to the new business information system were interviewed by means of a semi-structured interview. In these interviews, the three managers were asked for their personal opinions. The objective was to first check whether the implementation of the business information system could indeed be regarded as an organisational change. Furthermore, a clearer picture of the experiences, methods, and context of the organisation was needed.

Quantitative research allows for the questioning of a great number of respondents, so that it provides numerical insight and the possibility to present ratios in percentages. This results in an objective description of the findings. Moreover, all the respondents remain anonymous.

The questionnaire included general demographic factors, the DINAMO questionnaire to help map out the respondents' willingness to change, and the MLQ questionnaire that provides insight into the leadership style. The DINAMO questionnaire was developed to gain insight into the employees' willingness to change before or during the planned alteration. In our study, which focused on a change in the past, we asked how the employees currently scored when it came to their willingness to change and the leadership style that they experienced. The questionnaire was adapted for this purpose, and this set a limitation to our study.

Our study was hypothesis testing research. The testing of hypotheses is a frequently used research methodology. For such research, it is important to establish the level of significance beforehand. The significance level for this study was set at 0.05. This level determines the decision rule for the rejection or acceptance of a hypothesis. In a test at 5% significance level, the chance that the outcome falls in the rejection area is 5%. In other words, there is a reliability of 95% that the correct decision is made. These decisions were

made (accepted or rejected) on the basis of statistical analyses of the data collected, performed through the SPSS statistical package.

The study aimed to chart the employees' willingness to change. In their framework, Devos et al. [2] identified the factors of participation, time, change history, work satisfaction, and emotional involvement. Kim and Mauborgne [16] referred to the factors of involvement, explanation, and clarity in expectations. All these factors can, more or less, be traced back to the thirteen motivational powers in the DINAMO model of Metselaar, Cozijnsen and Van Delft [15]. The DINAMO model is based on Azjen's validated TPB model and is adjusted according to evidence. Moreover, Metselaar and Cozijnsen have tested their model in practice several times and developed a validated questionnaire on this basis. This questionnaire was used in this study to measure the employees' willingness to change.

The study was intended to provide insight into the transformational leadership style. The theory most frequently used in scientific research to describe a management style is called the 'Full Range Leadership Theory'. The associated validated questionnaire is the 'Multifactor Leadership Questionnaire' (MLQ). It measures three leadership styles, and we focused on the transformational leadership style.

6. Results

6.1. Qualitative Investigation

In all three project management organisations, interviews were conducted with the manager responsible for the implementation of the new business information system. These interviews revealed that in all three companies the transition to the new business information system was regarded as an organisational change. It involved changes that were carried through increasingly further, but the foundation of which had already been laid quite some time (years) ago.

The implementation of the new system led to some resistance in the employees of all three organisations. The most important reasons for the resistance experienced were:

- the lack of promotion and motivation by fellow directors/partners;
- unclearness about the necessity of the system where the employees were concerned;
- unclearness as to why all this "administrative rigmarole" was necessary;
- being forced to let go of an old, familiar system;
- rather wanting to focus on the primary process.

Nevertheless, all three interviewees concluded that without this system and the way they arrived there, they would not have been able to deliver what they now did. The role of the responsible manager had been crucial, but so had the role of the formal and informal fellow managers. The interviewees had had little or no influence on the latter. The advantage of an enthusiastic and motivated project team was emphasised by company 3. The members of this project team had indirectly also had a positive influence on the other employees in the company.

6.2. Quantitative Investigation

The research population was formed by the employees of companies 1 and 2. The management of company 3 did not give its approval for the questioning of their employees for the quantitative part of this study. All 35 employees of companies 1 and 2 together were asked to fill in the paper questionnaire. Contacts in the company helped distribute the questionnaires. The response was 71.4% (see Table 1), far above the 60% set.

Of the 25 respondents who formed the research population, approximately two-thirds (64%) were male, and one-third (36%) female.

16% of the 25 respondents were older than 50. The other 21 respondents were proportionally divided over the age categories of 20 to 30 inclusive, 31 to 40 inclusive, and 41 to 50 inclusive.

32% of the respondents indicated that they had been actively involved in the implementation of the new business information system at the time.

Before we continued to analyse the data from the scales used, i.e. DINAMO and MLQ, they were first tested for reliability through Crombach's alpha. As a thumb of rule, usually 0.70 or higher is used in scientific research.

Table 1. Response

Response number	Number sent	Number received	Percentage	Non-response
Company 1	11	11	100%	0
Company 2 where of	24	14	56%	10
Location 2a	12	8	66.7%	4
Location 2b	7	5	71.4%	2
Location 2c	5	1	20%	5
Total	35	25	71.4%	10

The readiness to change showed the strongest correlation with the willingness to change when compared with the need to change and the ability to change. The best predictors from the DINAMO model for determining the willingness to change among the employees were:

1. the involvement in the change process;
2. the emotions that the change evoked;
3. the added value of the change itself.

We found that only six (out of thirteen) factors correlated significantly positive with willingness to change, therefore hypothesis was rejected. The six factors positively related with willingness to change are timing, involvement, emotions, necessity, added value and information. However the factor information showed a low Crombach's alpha.

The presence of transformational leadership correlated positively with an employee's readiness to change in view of a proposed alteration. The correlations of transformational leadership with the variables that determine this readiness are positive for the variables of emotions, added value and involvement. However not significant, so the hypothesis was rejected.

The presence of transformational leadership correlated positively with an employee's need to change in view of a proposed alteration. The correlations of transformational leadership with the variables that determine this need are positive, but not significant. The hypothesis was rejected.

The presence of transformational leadership correlated positively with an employee's ability to change in view of a proposed alteration. The correlations of transformational leadership with the variables that determine this ability were both positive and negative and were not significant. The hypothesis was rejected.

The presence of transformational leadership correlated positively with an employee's willingness to change in view of a proposed alteration. However not significant, so the hypothesis was rejected.

The managers formed 20% of the research population. Their scores were compared with the employee scores. We looked at the scores for leadership styles and the underlying factors and noted that, across the board, the managers scored more positive on leadership style and the underlying dimensions than their employees.

A similar outcome was found for the motivational factors and the willingness to change measured by the DINAMO questionnaire. With the exception of the factor of controllability, managers are of a more favourably disposition than their employees.

7. Discussion and Conclusions

The study showed that the most important factors of employees' willingness to change are timing, involvement, emotions, necessity, and added value. The study also revealed that there is no relationship between transformational leadership and the motivational factors of willingness to change and this willingness itself.

No significant correlation was found for any of the hypotheses, or Crombach's alpha did not meet the requirements set.

Since no significant correlations were found, all the hypotheses were rejected. This means that the study did not demonstrate a positive correlation between transformational leadership and the motivational factors of willingness to change and this willingness itself.

The factors of the change model, however, could be compared with the willingness to change itself. Since Crombach's alpha is smaller than 0.70, no reliable conclusions may be drawn. Nevertheless, the results are noteworthy. The factors from the DINAMO model that showed the greatest significant correlation with willingness to change were timing, involvement, emotions, information, external necessity, and added value. This indicates that the best predictors of willingness to change primarily come under the heading of 'readiness'.

However, the qualitative investigation revealed that through leading by good example a manager has a positive influence on their employees' willingness to change. Furthermore, it was established that the manager plays a vital role in their employees' acceptance of the change.

The qualitative investigation also showed that, when it comes to change, the following issues evoke the most resistance among the employees:

- the lack of promotion and motivation by fellow directors/partners;
- unclearness about the necessity of the system where the employees were concerned;
- unclearness as to why all the administration is necessary
- being forced to let go of an old, familiar system;
- rather wanting to focus on the primary process.

In practice, this means that flexibility and the ability to respond to a demanded change are essential. In the world of IT, technological changes succeed one another rapidly. This means that organisations in the IT business should be flexible and able to operate dynamically - and accept that the world that around them changes.

Managers are responsible for a department within the organisation where they work. When they want to implement a change, this change also comes under their responsibility. The thing that managers should be more aware of is their influence on the attitude of their employees through their actions. Managers do not only have a direct influence on the execution of the change process, but indirectly also on its success through the influence they have on their employees. It is also important that managers are aware of the fact that they set an example.

Future research should reveal whether it makes a difference if the questions are asked in retrospective as described in this article or before or during the study.

The big question remains as to how an employee's positive willingness to change can be actually converted into desired behaviour: to accept the change and thereby make it a success. How great an influence does the manager then have

on their employees, and what is the employee's role? The greater the willingness to change is, the greater the chance that this intention will actually be converted into desired behaviour.

REFERENCES

[1] Economist Intelligence Unit, (2012). Agent of change: The future of technology disruption in business. London: The Economist.

[2] Devos, G., Vanderheyden, K., Broeck, H., van den, (2002). A framework for assessing commitment to change: Process and context variables of organizational change. Leuven: Vlerick Leuven Gent Management School.

[3] Bass, B.M., (1990). From transactional to transformational leadership: Learning to share the vision. Organizational Dynamics, 18, 19-30.

[4] Kotter, J.P., (1996). Leiderschap bij verandering. Den Haag: Academic Service.

[5] Davis, F. D., (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, September, 13, 3, 319-340.

[6] Fishbein, M., Ajzen, I. (1975). Predicting and changing behavior: the reasoned action approach. New York, NY: Psychology Press.

[7] Ajzen, I., (1991). The theory of planned behaviour. Organizational behaviour and human decision processes, 50, 179-211.

[8] Metselaar, E.E. (1997). Assessing the willingness to change: Construction and validation of the DINAMO. Doctoral Dissertation, VU Amsterdam.

[9] Lewin, K. (1958). Group decision and social change. New York, NY: Holt, Rinehart and Winston.

[10] Goldstein, H. (1988). A far-from-equilibrium systems approach to resistance to change. Organizational Dynamics, 16-26.

[11] Cozijnsen, A.J., Vrakking, W.J., (2003). Ontwerp en invoering: Strategieën voor organisatieverandering. Alphen aan den Rijn: Samsom Bedrijfsinformatie.

[12] Metselaar, E.E., Cozijnsen, A.J., (2005). Van resistance naar veranderbereidheid. Over willen, moeten en kunnen veranderen. Heemstede: Holland Business Publications.

[13] Zaltman, G., Duncan, R., (1977). Strategies for planned change. New York, NY: Wiley & Sons.

[14] Keuning, D., Eppink, D.J., (2004). Management en organisatie: theorie en toepassing. Groningen, Stenfert Kroese.

[15] Metselaar, E.E., Cozijnsen, A.J., Delft, P., van, (2011). Van resistance naar veranderbereidheid: Over willen, moeten en kunnen veranderen. (6e druk), Heemstede: Holland Business Publications.

[16] Kim, W., Mauborgne, R., (2009). De blauwe ocean: Creatieve strategieën voor nieuwe, concurrentievrije markten.

[17] Northouse, P. G., (2007). Leadership Theory and Practice. London: Sage Publications.

[18] Bass, B.M., (1990). Bass and Stogdill's Handbook of Leadership, Theory, research and managerial applications. New York: the Free Press.

[19] Bennis, Warren, (1989). On becoming a leader. New York: Addison Wesley.

[20] Bass, B.M., (1999). Two decades of research and development in transformational leadership. European Journal Of Work and Organizational Psychology, 8 (1), 9-32.

[21] Michel, J.W., Lyons, B.D., Cho, J., (2011). Is the full-range model of leadership really a full-range model of effective leader behavior? Journal of Leadership & Organizational Studies, 18 (4), 493-507.

[22] Bass, B.M., (1985). Leadership and performance beyond expectations. New york, NY: The Free Press.

[23] Judge, T.A., Piccolo, R.F., (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. Journal of Applied Psychology, 89, 755-768.

[24] Conger, J.A., Kanungo, R.N., (1988). Behavioral dimensions of charimatic leadership. In: Charismatic Leadership: the elusive factor in organizational effectiveness, pp. 78-97. San Francisco.

[25] Chu, L., Lai, C., (2011). A research on the influence of leadership style and job characteristics on job performance among accountant of county and city government in Taiwan. Public Personnel Management, 40, 101-118.

[26] Kotter, J.P., (1995). Leading change: Why transformation efforts fail. Harvard Business Review, 73, 59-67.

[27] Yukl, G., (2008). How leaders influence organizational effectiveness. The leadership quarterly 19.6: 708-722.

[28] Stuart, E., (2005). Veranderbereidheid door leiderschap: Is leiderschap de sleutel tot succesvol veranderen? Doctoraalscriptie, Vrije universiteit van Amsterdam.

[29] Jex, S.M., Britt, T.W., (2008). Organizational psychology: A scientist-practitioner approach. Hoboken, NY: John Wiley & Sons, Inc.

[30] Santos, F., Eisenhardt, K., (2004). Multiple Case Study. In Michael S. Lewis-Beck, A. Bryman, & Tim Futing Liao (Eds.), The SAGE Encyclopedia of Social Science Research Methods. (pp. 685-686). Thousand Oaks, CA: Sage Publications, Inc.

[31] Saunders, M., Lewis, P., Thornhill, A., (2012). Research methods for business students. Harlow, England: Pearson Education Ltd.