Factors Influencing Employees' Experience after Business Process Redesign*

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Abstract: Since human dimension is an important factor during business process redesign, this study aims to distinct factors influencing employees' experience after similar initiatives. A structural equation model was developed that represents relationships between several factors influencing employees' experience after business process redesign. The proposed model was tested using survey data from a sample of 136 employees in large enterprise companies in North Macedonia that significantly redesigned certain business processes in their information technology departments, while the obtained results explained 68% of variance in employees' experience. The results emphasize that company's strategy that presents a clear vision to employees for the intended process redesign and employees' attitude towards organizational change have the highest impact on perceived employee's experience. Additionally, the new working conditions after the change, also positively influenced the perceived experience, as well as the employees' personality traits, which were the lowest influencing factor. However, the study revealed a moderate direct link between employees' personality dimensions and their attitude towards the needed organizational changes during business processes redesign. These results can help companies face the socio-cultural challenge and increase employees' positive experience after business process redesign, for preferable outcomes of such activities.

Keywords: business processes redesign; employees' experience; personality traits; strategy; working conditions.

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1. Introduction

The companies have always worked at improving their business process to increase effectiveness and overall success. Such initiatives may include incremental improvements that make changes easy to implement and reduces resistance, or fundamental rethinking and radical processes change as a large-scale business process redesign or process reengineering (Davenport, 2013; Hammer, 2015; Hammer and Champy, 1993; Harmon, 2014; Sarkis and Sundarraj, 2015). Currently there are different process frameworks that can guide companies to significantly redesign their business processes, such as Supply Chain Operations Reference (SCOR), Information Technology Infrastructure Library (ITIL), Business Process Framework (eTOM), etc. (Ahmad et al, 2013; AlShamy, Elfakharany, and ElAziem, 2012; Denda and Drajic, 2013; Harmon, 2014; Lambert, García-Dastugue, and Croxton, 2005; Shepherd and Günter, 2010).

However, in practice, radical business process changes may still fail and do not achieve intended results (Al-Mashari and Zairi, 1999; Goksoy, Ozsoy, and Vayvay, 2012; Habib, 2013; Sikdar and Payyazhi, 2014). Generally, large-scale business process redesign faces two challenges (Hanafizadeh, Moosakhani, and Bakhshi, 2009; Mansar and Reijers, 2005):

(1) technical challenge – derives from the goal to provide fundamental and dramatic improvement, which usually inclines difficulties in new process design and development;

(2) socio-cultural challenge – radical impact on employees as a result of severe organizational restructuring and process change.

The success in implementing organizational changes often can depend on the employees, which should support the change (Morin et al., 2016; Serban and Iorga, 2016; Shen and Chou, 2010; Taher and Krotov, 2016). Early involvement of the employees in the planned business processes redesign can have a positive effect on the change by giving employees a sense of active involvement and responsibility. The employees should be confident that the change in the business processes will enable the organization, or one part of the company, to improve its efficiency and competitiveness and optimally enrich its strategy. Hence, the planned process redesign should be communicated throughout the company so that employees can understand the benefits and their role in the redesigned processes. By doing this, the company can eliminate the resistance that may come from the employees (Goksoy, Ozsoy, and Vayvay, 2012; Pieterse, Caniëls, and Homan, 2012; Taher and Krotov, 2016).

Having in mind the importance of employees involved or affected by a significant business process redesign, the purpose of this study is to distinct relevant factors that influence positive employees' experience during large-scale redesign of business processes. It empirically investigates the nature of relationships between employees' personality traits, their attitude towards organizational changes, company's strategy and new working conditions, and their effect on employees' experience. With a focus on employees, this study formulates several hypotheses for influential factors on their experience after a significant business process redesign. It tests hypotheses' validity while surveying employees working in information technology (IT) department in the central bank, financial institutions and several larger corporations in North Macedonia, which have significantly redesigned their business processes following the ITIL framework. It provides results that can help companies that undertake similar initiatives to increase employees' positive experience and properly face the socio-cultural challenge for preferable outcomes.

2. Theoretical background

The business process redesign or process reengineering involves a holistic approach to business improvement encompassing changes in the technical structure of the processes (Davenport, 2013; Sethi and King, 1998). It requires complete understanding of the current state, clear business vision and objectives, and company transformation to adapt to a new way of doing business. Therefore, it also includes a social aspect, which involves novelties in organization, staffing, changing job roles, etc., which directly affect employees in the company (Goksoy, Ozsoy, and Vayvay, 2012; Hanafizadeh, Moosakhani, and Bakhshi, 2009; Sethi and King, 1998).

The dedication and involvement of employees is one of the significant factors that influence successful outcome of the redesign of business processes (Al-Mashari and Zairi, 1999; Davenport, 2013; Goksoy, Ozsoy, and Vayvay, 2012; Habib, 2013). Even more the rapidity and magnitude of change can determine morale and effectiveness of employees (Harmon, 2014; Sethi and King, 1998). Scholars have long studied basic personality traits as predictors of human behavior, which can be further used during business assessments for positive employee involvement in the company processes. The literature shows compelling evidence for robustness of a five factor model as a basic dimension of personality, which is extensively utilized for prediction of employee's performance, job satisfaction, work behavior, etc. (Greguras and Diefendorff, 2010; Judge et al., 2014; Neal et al., 2012). The "Big Five" model, which is often used in literature for personality traits evaluation (John, Naumann, and Soto, 2008; Judge et al., 2014; Neal et al., 2012; Sartori et al., 2017) has 5 dimensions of personality: conscientiousness, openness to experience, extraversion, agreeableness and neuroticism. This model can help researches investigate relation between employees' personality and their experience after the significant change in the company. Additionally, the process redesign usually involves large-scale organizational changes and thus employees' attitude towards the change can be significantly influenced by their personality traits (Judge et al., 2014). Based on interpretations and their expectations during organizational changes and how the change is perceived, employees respond the changes differently (Goksoy, Ozsoy, and Vayvay, 2012; Mossholder et al., 2000). In most cases, employees either accept or oppose the change, which ultimately affects their overall experience from the business process redesign in the organization.

On the other hand, successful business process redesign requires a clear vision of how the changes in organization will meet strategic goals for the business processes in question (Habib, 2013; Hanafizadeh, Moosakhani, and Bakhshi, 2009; Jovanoski, Malinovski, and Arsenovski, 2017; Sethi and King, 1998). The strategic vision is of little help unless it is communicated throughout the organization, its levels of structure and employees. Therefore, the link between company strategy and employees' positive experience is significant for support of the redesigned business processes (Sethi and King, 1998). Furthermore, a human resource strategy during similar changes is required to provide directions and long-term vision, strengthen confidence in management and involve employees in process redesign, so their final experience will be positive (Davenport, 2013; Goksoy, Ozsoy, and Vayvay, 2012; Sethi and King, 1998).

Finally, the redesign of business process involves changes in working conditions in the company (Abdolvand, Albadvi, and Ferdowsi, 2008; Cummings and Worley, 2014; Goksoy, Ozsoy, and Vayvay, 2012), which can be differently perceived by its employees (Harmon, 2014; Kiefer, 2005; Sethi and King, 1998; Taher and Krotov, 2016). Hence, a link between the new working environment and employee's perception can be beneficial to predict their experience after similar initiatives.

3. Methodology

3.1 Hypotheses

The human dimension is an important factor in business process redesign, since all employees will get affected directly or indirectly. Thus, a specific attention needs to be given to employees, who are the real source and vehicle for change (Habib, 2013; Goksoy, Ozsoy, and Vayvay, 2012; Sethi and King, 1998). Based on the theoretical background, we can assume that employees' personality traits and attitude towards organizational changes influence their experience after the new processes are in place. Hence, we propose the following hypotheses:

Hypothesis 1: Employees' personality traits have direct influence on their attitude towards organizational changes (*H1a*) and their experience after the process redesign (*H1b*).

Hypothesis 2: Employees' attitude towards organizational changes is closely linked with their experience after the redesign of business process.

In line with the given review of literature, while focusing on the importance of strategic dimensions and new working conditions, we hypothesize:

Hypothesis 3: Company's strategy has positive impact on employees' experience after business process redesign.

Hypothesis 4: The new working conditions once the redesigned process is implemented are positive associated with employees' experience.

3.2 Participants

To test the validity of the proposed methods and hypotheses we have examined business process redesign initiative in IT departments in the central bank, several financial institutions and larger corporations in North Macedonia, with the focus on employees' experience. Following the ITIL framework, these IT departments have significantly changed their organizational structure and processes to provide better customer services, time reduction and cost decrease, while trying to be pertinent to organization's goals and strategy. The change usually started with a vision development, evaluation of existing processes and their structure, followed by implementation of the new redesigned processes. This study has performed evaluation of employees' beliefs after the change was implemented and new processes were in place for a longer period, so the employees' perceptions and experience can be comprehensive and relevant.

3.3 Statistical methods and instrument

Subjective factors, such as personality traits, attitude, experience, etc., are difficult to measure and quantify. Therefore, this study uses confirmatory factor analysis (CFA) as statistical technique, which defines a larger set of observed variables that can be measured, while forming more complex constructs that illustrate researched factors (Jöreskog, 1969). It uses structural equation modeling (SEM) (Bollen, 1998; Lomax and Schumacker, 2012) to develop a model that adequately represents factors influencing employees' experience and their relationships after business process redesign, based on the researched constructs. The SEM models provide percentage of explained variance (R^2) for the desired construct (such as employees' experience), with indicators for the measurement error, so such model can indicate whether the proposed approach and chosen factors can compensate for other constructs neglected from the analysis. Even though employees' experience can be influenced by other factors that are lacking in this study, a high value of R^2 confirms the appropriateness of the chosen instrument.

Since the main purpose of the study was to develop a model that adequately represents factors

influencing positive employees' experience during large-scale redesign of business processes, we used two questionnaires to gather self-reporting information from the employees working in the referred IT departments. The questionnaires provided multi-item measures on chosen constructs, which were further used in the statistical analysis and verification of the proposed hypotheses.

3.3.1 Personality Traits

The first questionnaire was online (The Big Five Project), using a standard test for the "Big Five" personality traits model to test employees' five fundamental dimensions of personality: conscientiousness, openness to experience, extraversion, agreeableness and neuroticism. Based on the Big Five Inventory (BFI) (John, Naumann, and Soto, 2008), the items in the questionnaire derived appropriate percentage of each dimension for involved employees.

3.3.2 Attitude Towards Organizational Changes

The second questionnaire was developed (Appendix) based on the previously presented theoretical framework and used a multi-item measure (on grading scale from 1 to 6, where 1 = strongly disagree, 6 = strongly agree) where employees provided feedback for the remaining constructs. Hence, each of the chosen constructs had three to five indicators, which were further used to calculate parameter estimates and their appropriateness.

The attitude towards organizational changes was one of the chosen indicators that were evaluated using the second questionnaire. As indicated in various studies (Goksoy, Ozsoy, and Vayvay, 2012; Mossholder et al., 2000; Vakola, Tsaousis, and Nikolaou, 2004; Yousef, 2017) employees can respond to changes differently, so it is important to take into account how the change is perceived during business process redesign.

3.3.3 Company's Strategy

Various quantitative, qualitative and comparative studies have shown that strategy has an important role in the effectiveness and success during organizational changes (Hanafizadeh, Moosakhani, and Bakhshi, 2009; Jovanoski, Malinovski, and Arsenovski, 2017; Sethi and King, 1998; Vom Brocke, Petry, and Gonser, 2016). Therefore, the company's strategy as perceived by the employees was evaluated through a section in the second questionnaire, since the strategic vision cannot provide results unless it is communicated throughout the organization.

3.3.4 Working Conditions

The new working conditions after the business process redesign may be differently perceived by the employees (Sethi and King, 1998; Taher and Krotov, 2016). Thus, the second questionnaire contained a section for the new working conditions, so we can include this construct in the statistical analysis and verification of the related hypothesis.

3.3.5 Employees' Experience

Since the primary goal of this study is to distinct factors influencing employees' experience after business process redesign, the final part of the second questionnaire contained several indicators for this construct. In line with studies (Harmon, 2014; Kiefer, 2005; Sethi and King, 1998) that emphasize the importance to achieve positive employees' experience after the organizational change, the questionnaire covered employees' beliefs regarding increased efficiency and productivity, and overall experience after the business process redesign initiative.

4. Results

A total of 136 employees provided feedback via the questionnaires, with following demographics: 58.82% male and 41.18% female employees, 5.88% age 24-29 years, 23.53% age 30-35, 23.53% age 36-39, 29.41% age 40-45 and 17.65% age 46 years and above. In CFA, the factor loadings indicate relationship between a construct and each of its constituent measured indicators. The personality traits construct is consisted of its five fundamental dimensions, while the rest of the constructs have appropriate measurements as part of the second questionnaire. Table 1 shows the measured variables that represent relevant indicators underlying the domain of the chosen construct and the obtained factor loadings:

Table 1. Researched constructs, their measurement indicators and obtained factor loadings.

Construct	Indicator	Factor loading
Personality traits	Conscientiousness - organized and dependable, with goal-directed behavior	0.75
	Openness to experience - curios, creative, preferring novelty and variety	0.56
	Extraversion - sociable, talkative, seeking stimulation in the company of others	-0.59
	Agreeableness - compassionate, cooperative, with trusting and helpful nature	0.98
	Neuroticism - tendency to experience unpleasant emotions easily	-0.52
Attitude towards organizational changes	Employee's acceptance of the redesigned business processes	0.56
	Belief for personal contribution to the departmental changes	0.77
	The new business processes are better aligned with rest of the departments	0.83
	Employee's attitude towards organizational changes in general	0.79
Company's strategy	Employee's familiarization and understanding of the company's strategy	0.56
	Beliefs that introduced departmental changes are supported by top management	0.52
	The changes offer higher level of alignment with company's strategy	0.89
	The redesigned process reflect more closely internal departmental activities	0.94
Working conditions	The company provides excellent working conditions for career development	0.73
	The new working conditions strongly support redesigned processes	0.63
	Internal organization provides good conditions for employee's well-being	0.99
Employees' experience	Beliefs for increased performance and process time reduction after the change	0.88
	The new business processes increase employee's productivity	0.83
	The introduces changes have enhanced employee's satisfaction	0.71
	Overall employee's experience after the processes redesign	0.64

The factor loading results for the personality traits construct show two negative loadings (extraversion and neuroticism) that suggests a negative linear association ("opposite" characteristic) to the whole construct, which is hypothesized to influence employees' experience. The rest of the factor loadings were positive. All factor loadings are in absolute value above the desired threshold of 0.5 (Nunnally, 1978; Nunnally and Bernstein, 1994), which indicates an internally consistent measurement structure.

The SEM model was tested for goodness-of-fit indices to validate the degree of alignment with collected data set, as suggested by previous research. We have calculated the relative chi-square (Wheaton et al., 1977), root mean square error of approximation (Browne and Cudeck, 1993), goodness of fit index (Jöreskog and Sorbom, 1984), comparative fit index (Hu and Bentler, 1999; Kline, 2005) and normed fit index (Bentler and Bonett, 1980), with satisfactory results shown in Table 2.

Table 2. Model goodness-of-fit indices for the n = 136 sample

Model fit indices	Recommended values	Results in this study
Relative chi-square (x^2/df)	< 5	4.704
Root mean square error of approximation (RMSEA)	< 0.08	0.077
Goodness of fit index (GFI)	> 0.90	0.908
Comparative fit index (CFI)	> 0.90	0.941
Normed fit index (NFI)	> 0.90	0.924

Based on the stated hypotheses, Figure 1 shows the developed SEM model that explains complex relationships among researched constructs and path coefficients according to the gathered dataset.

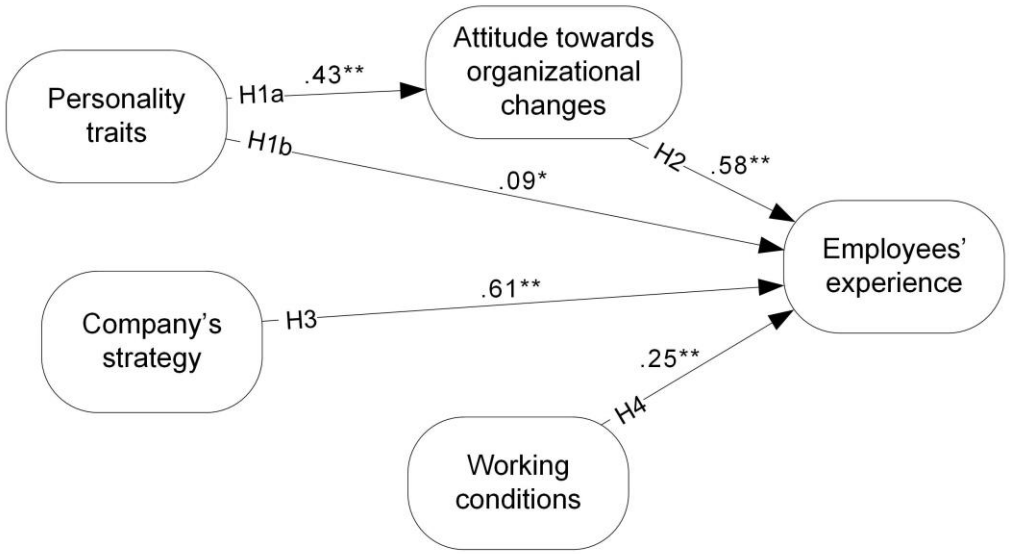

Fig. 1. Factors influencing employees' experience after business process redesign (*p<0.05, **p<0.001, two-tailed).

The proposed structure explained 68% of variance (R^2) in employees' experience, which is a high value in social studies. Company's strategy, as perceived by the employees, had the highest

statistical effect on their experience (β = 0.61), followed by the employees' attitude towards organizational changes (β = 0.58). Additionally, the new working conditions were also identified as predictor for employees' experience (β = 0.25), since they can be differently perceived by the employees after the redesign of the business processes. Finally, the employees' personality traits showed lowest impact on their experience (β = 0.09), indicating which dimensions negatively influence the experience after the change. Still, though the link between the personality traits and employees' attitude towards organizational changes (β = 0.43), the three personality dimensions (conscientiousness, openness and agreeableness) indirectly influenced their experience (β = 0.58) after the process redesign.

In addition, the factor loadings and the results from the SEM model revealed the strongest influencing measure for each researched construct, which formed the relationship according to the paths in the model. Hence, the following indicators reflected the highest on their respective construct:

- employees' belief that the redesigned process reflect more closely internal departmental activities (from the company's strategy construct);
- beliefs that the new business processes are better aligned with rest of the departments (attitude towards organizational change);
- employees' impression that internal organization provides good conditions for employee's well-being (working conditions);
- employees' agreeableness (personality traits).

Similarly, the beliefs for increased performance and process time reduction after the change were the strongest measure within the employees' experience construct.

5. Discussion

The purpose of this study is to broaden our understanding for the relevant factors that influence positive employees' experience during large-scale redesign of business processes. While focusing on the employees it provides insights for the socio-cultural challenge related to the impact on employees as a result of severe organizational restructuring and business process change.

The research result identify that company's strategy and employees' attitude towards organizational changes are the most influential factors on employees' experience, which fully supports *Hypothesis 3* and *Hypothesis 2* respectively. Hence, the results are in line with previous studies that emphasize the importance for the clear vision of how the changes in organization will meet strategic goals, which directly increased the level of positive experience of the employees (Davenport, 2013; Goksoy, Ozsoy, and Vayvay, 2012; Habib, 2013; Sethi and King, 1998). Since in most cases, employees either accept or oppose the change, their interpretations and attitude towards the organizational changes is also identified as significant, which corresponds with similar studies that cover this aspect (Elias, 2009; Goksoy, Ozsoy, and Vayvay, 2012; Mossholder et al., 2000). For example, Verdin et al., (2011) have emphasized that difficulties, even frequent failures, of many strategy implementation and change programmes have been widely acknowledged, and that the required change must be seen as positive and pragmatic among employees. Therefore, all these studies support the research results, since company's strategy and employees' attitude towards organizational changes ultimately affect employees' overall experience from the business process redesign in the organization.

Furthermore, the new working conditions are also important, since they can be differently perceived by the employees after the new processes are in place and organizational restructuring

is completed (Harmon, 2014; Kiefer, 2005; Sethi and King, 1998; Taher and Krotov, 2016). This validates the *Hypothesis 4* in this study. Finally, *Hypothesis 1* is also supported, since employees' attitude towards the change was moderately influenced by their personality traits, as emphasized in Judge et al., 2014. It confirms the findings in Vakola, Tsaousis, and Nikolaou (2004) that show definite relationship between personality traits and employees' attitude towards the change. In addition, the results in this study demonstrated that personality dimension had slight direct effect on employees' experience. This correlates with research studies in the literature that focus on similar problems (Greguras and Diefendorff, 2010; Judge et al., 2014; Neal et al., 2012). Even though some general behavioral studies show an opposite connection between a person's experience and his personality traits (Roberts, Walton and Viechtbauer, 2006; Rogers, 1957), this study evaluates this connection after a business process change, while the low measurement error and model-fit indices confirm that the link between the personality dimensions and employees' experience is valid in business context. Number of studies have identified the importance of employees involved or affected by a significant business process redesign (Dumas at al., 2018; Goksoy, Ozsoy, and Vayvay, 2012; Pieterse, Caniëls, and Homan, 2012; Taher and Krotov, 2016). In addition, Bala and Venkatesh (2017) have tried to identify how employees react to innovations that change their work processes, while Leggat et al. (2016) explored the impact of process redesign through an in-depth interviews with participating employees, to provide evidence that organizations implementing process redesign must ensure that supporting management practices are in place. Still, there is gap in the literature and practices that identifies influencing factors that can increase employees' experience during large-scale business process redesigns. The results from this study are very important, since as indicated in Siengthai and Pila-Ngarm (2016), employees' experience and satisfaction after the process redesign is found to be positively and significantly related to employee performance, which can increase the success of the organization in general (Thamrin, 2012).

This study provides contributions to literature and practical implementations identifying that the level of positive employees experience can be increased while focusing on:

- company's strategy that should be communicated throughout the organization indicating that the redesigned processes will improve effectiveness and internal activities, as well as preparation of employees to stimulate positive attitude towards the needed organizational changes;
- working conditions that shouldn't be neglected after the process redesign, as well as to a small extended, take into account different employees' personality traits and communicate the change appropriately while conducting large-scale process redesigns.

6. Limitations

This study involved several enterprise companies, such financial institutions, the central bank and larger corporations in North Macedonia, which typically have established business processes and have detected the ineffective processes that should be redesigned. The employees that participated in the study work at the IT departments that changed their organizational structure following the ITIL framework, which is a set of best practices that are adopted by businesses and individuals for business transformation and strategic IT. Hence, these conditions introduce certain limitations to the findings presented in the study. Thus, similar theoretical and practical implementations should involve organizations that have similar level for maturity of their business processes and clear vision how they should be transformed.

Also, besides the evaluation of employees' personality traits conducted through an online standard test, other construct were measured using a questionnaire that was developed based on existing literature for the purpose of the present study. This questionnaire contains several carefully chosen items per each construct, since employees would have been reluctant to fill in complex questionnaires. Future analysis can use a professional tool for measuring other constructs as well.

7. Conclusion

Companies that have decided to undertake business process redesign, must be prepared appropriately for successful implementation of such initiatives. Since the successful outcomes of similar organizational changes can often depend on involved employees, which should support the change, their perceived experience after the change is an important factor that should not be neglected.

This study investigated the relationship between factors influencing employees' experience after the business process redesign. The results from the developed SEM model illustrating mutual relationships validate the research hypotheses, with an appropriate model fit to the observed data obtained from employees working in IT departments in deferent companies that undertook process redesigns. The research indicators adequately predicted the level of employees' experience, while explaining 68% of its variance, which is a high in social studies.

Since the study shows valid measurement structure for predicting employees' experience after similar initiatives, future research can survey additional items and broaden factors to cover additional aspects, such as the change in employees performance after the process redesign, parameters that can illustrate the change in the organizational effectiveness, etc. Even more, new studies may test the usefulness of the proposed model in situations when changes are not beneficial for the employees, to cover situations when organizational changes are ineffective and fail. Hence, this study opens possibilities for further research, but also can help organizations implementing large-scale business process redesign to increase employees' experience, properly address the human challenge and achieve the intended results during the transformation.

References

Abdolvand, N., Albadvi, A., and Ferdowsi, Z. (2008) 'Assessing readiness for business process reengineering,' *Business Process Management Journal*, vol. 14, no. 4, pp. 497-511.

Ahmad, N., Tarek Amer, N., Qutaifan, F., & Alhilali, A. (2013) 'Technology adoption model and a road map to successful implementation of ITIL,' *Journal of Enterprise Information Management,* vol. 26, no. 5, pp. 553-576.

Al-Mashari, M. and Zairi, M. (1999) 'BPR implementation process: an analysis of key success and failure factors,' *Business process management journal*, vol. 5, no. 1, pp. 87-112.

AlShamy, M. M., Elfakharany, E., & ElAziem, M. A. (2012) 'Information technology service management (ITSM) implementation methodology based on information technology infrastructure library ver. 3 (ITIL V3),' *International Journal of Business Research and Management*, vol. 3, no. 3, pp. 113-132.

Bala, H., & Venkatesh, V. (2017) 'Employees' reactions to IT-enabled process innovations in the age of data analytics in healthcare,' *Business Process Management Journal, 23*(3), 671-702.

Bentler, P.M. and Bonett, D.G. (1980) 'Significance tests and goodness of fit in the analysis of covariance structures', *Psychological Bulletin*, vol. 88, no. 3, p.588.

Bollen, K. A. (1998) '*Structural equation models'*, John Wiley & Sons, Ltd.

Browne, M. W., & Cudeck, R. (1993) 'Alternative ways of assessing model fit,' *Sage focus editions,* vol. 154, pp. 136-136.

Cummings, T. G., & Worley, C. G. (2014). *Organization development and change*. Cengage learning.

Denda, A., & Drajic, D. (2013, October). Aligned software and process models with both the eTOM framework and the ITIL processes. In *Telecommunication in Modern Satellite, Cable and Broadcasting Services (TELSIKS), 2013 11th International Conference on* (Vol. 2, pp. 647-650). IEEE.

Davenport, T. H. (2013) '*Process innovation: reengineering work through information technology*', Harvard Business Press.

Dumas, M., La Rosa, M., Mendling, J., & Reijers, H. A. (2018). Process Redesign. In *Fundamentals of Business Process Management* (pp. 297-339). Springer, Berlin, Heidelberg.

Elias, S. M. (2009). Employee commitment in times of change: Assessing the importance of attitudes toward organizational change. *Journal of Management, 35*(1), 37-55.

Goksoy, A., Ozsoy, B., and Vayvay, O. (2012) 'Business process reengineering: strategic tool for managing organizational change an application in a multinational company', *International Journal of Business and Management*, vol. 7, no. 2, pp. 89.

Greguras, G. J. and Diefendorff, J. M. (2010) 'Why does proactive personality predict employee life satisfaction and work behaviors? A field investigation of the mediating role of the self-concordance model', *Personnel Psychology*, vol. 63, no. 3, pp. 539-560.

G. Leggat, S., Gough, R., Bartram, T., Stanton, P., Bamber, G. J., Ballardie, R., & Sohal, A. (2016) 'Process redesign for time-based emergency admission targets: Staff perceptions of the impact on quality of care,' *Journal of Health Organization and Management, 30*(6), 939-949.

Habib, M. N. (2013) 'Understanding Critical Success and Failure Factors of Business Process Reengineering', *International Review of Management and Business Research*, vol. 2, no.1, pp. 1.

Hammer, M. (2015). What is business process management?. In *Handbook on Business Process Management 1* (pp. 3-16). Springer, Berlin, Heidelberg.

Hammer, M. and Champy, J. (1993) '*Reengineering the Corporation: A Manifesto for Business Revolution'*, Nicholas Brealey, London.

Harmon, P. (2014) '*Business process change: a business process management guide for managers and process professionals'*, Morgan Kaufmann Publishers Inc.

Hanafizadeh, P., Moosakhani, M., and Bakhshi, J. (2009) 'Selecting the best strategic practices for

business process redesign', *Business Process Management Journal*, vol. 15, no. 4, pp. 609-627.

Hu, L.T. and Bentler, P.M. (1999) 'Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives', *Structural Equation Modeling: A Multidisciplinary Journal*, vol. 6, no. 1, pp.1–55.

John, O. P., Naumann, L. P., and Soto, C. J. (2008) 'Paradigm shift to the integrative big five trait taxonomy', *Handbook of personality: Theory and research*, vol. 3, pp. 114-158.

Jöreskog, K. G., (1969) 'A general approach to confirmatory maximum likelihood factor analysis', *Psychometrika*, vol. 34, no. 2, pp. 183-202.

Jöreskog, K.G. and Sorbom, D. (1984) *LISREL VI: User's Guide*, Scientific Software, Mooresville, IN.

Jovanoski, D., Malinovski, T., & Arsenovski, S. (2017) 'Links between strategic goals, information technology and customer satisfaction during business process reengineering,' *International Journal of Business Process Integration and Management*, vol. 8, no. 3, pp. 200-213.

Judge, T. A., Simon, L. S., Hurst, C., and Kelley, K. (2014) 'What I experienced yesterday is who I am today: Relationship of work motivations and behaviors to within-individual variation in the five-factor model of personality', *Journal of Applied Psychology*, vol. 99, no. 2, pp. 199.

Kiefer, T. (2005) 'Feeling bad: antecedents and consequences of negative emotions in ongoing change', *Journal of Organizational Behavior*, vol. 26, no. 8, pp. 875-897.

Kline, R.B. (2015) *Principles and Practice of Structural Equation Modeling*, Guilford Publications, Inc., New York, NY, USA.

Lambert, D. M., García-Dastugue, S. J., & Croxton, K. L. (2005) 'An evaluation of process-oriented supply chain management frameworks,' *Journal of business Logistics, 26*(1), 25-51.

Lomax, R. G., & Schumacker, R. E. (2012). *A beginner's guide to structural equation modeling*. New York, NY: Routledge Academic.

Mansar, L. S. and Reijers, H. A. (2005) 'Best practices in business process redesign: an overview and qualitative evaluation of successful redesign heuristics', *The International Journal of Management Science*, vol. 33, pp. 283-306.

Morin, A. J., Meyer, J. P., Bélanger, É., Boudrias, J. S., Gagné, M., & Parker, P. D. (2016) 'Longitudinal associations between employees' beliefs about the quality of the change management process, affective commitment to change and psychological empowerment,' *Human Relations, 69*(3), 839-867.

Mossholder, K. W., Settoon, R. P., Armenakis, A. A., & Harris, S. G. (2000) 'Emotion during organizational transformations: An interactive model of survivor reactions,' *Group & Organization Management*, vol. 25, no. 3, pp. 220-243.

Neal, A., Yeo, G., Koy A., and Xiao, T. (2012) 'Predicting the form and direction of work role performance from the Big 5 model of personality traits', *Journal of Organizational Behavior*, vol. 33, no. 2, pp. 175-192.

Nunnally, J. (1978) *Psychometric Theory, 2nd ed*., McGraw-Hill. New York.

Nunnally, J. C. and Bernstein, I. H. (1994) '*Psychometric theory, 3rd ed.'*, McGraw-Hill, New York.

Pieterse, J. H., Caniëls, M. C., & Homan, T. (2012) 'Professional discourses and resistance to change,' *Journal of Organizational Change Management*, vol. 25, no. 6, pp. 798-818.

Roberts, B. W., Walton, K. E. and Viechtbauer, W. (2006) 'Patterns of mean-level change in personality traits across the life course: a meta-analysis of longitudinal studies', *Psychological bulletin*, Vol. 132, No. 1, pp. 1-25.

Rogers, C. R. (1957) 'The necessary and sufficient conditions of therapeutic personality change', *Journal of consulting psychology*, Vol. 21, No. 2, pp. 95-103.

Sartori, R., Costantini, A., Ceschi, A., & Scalco, A. (2017) 'Not only correlations: a different approach for investigating the relationship between the Big Five personality traits and job performance based on workers and employees' perception,' *Quality & Quantity, 51*(6), 2507-2519.

Sarkis, J., & Sundarraj, R. P. (2015). ERP-enabled business process reengineering: implications from Texas Instruments. In *Business process transformation* (pp. 157-170). Routledge.

Siengthai, S., & Pila-Ngarm, P. (2016) The interaction effect of job redesign and job satisfaction on employee performance. In *Evidence-based HRM: a Global Forum for Empirical Scholarship* (Vol. 4, No. 2, pp. 162-180). Emerald Group Publishing Limited.

Shen, C. W., & Chou, C. C. (2010) 'Business process re-engineering in the logistics industry: a study of implementation, success factors, and performance,' *Enterprise Information Systems*, vol. 4, no. 1, pp. 61-78.

Shepherd, C., & Günter, H. (2010) Measuring supply chain performance: current research and future directions. In *Behavioral Operations in Planning and Scheduling* (pp. 105-121). Springer, Berlin, Heidelberg.

Serban, A., & Iorga, C. (2016) Employee Resistance To Organizational Change Through Managerial Reengineering. In *Proceedings of the INTERNATIONAL MANAGEMENT CONFERENCE* (Vol. 10, No. 1, pp. 366-374). Faculty of Management, Academy of Economic Studies, Bucharest, Romania.

Sethi, V. and King, W. R. (1998) '*Organizational transformation through business process reengineering: applying the lessons learned'*, Pearson College Division.

Sikdar, A., & Payyazhi, J. (2014) 'A process model of managing organizational change during business process redesign,' *Business Process Management Journal*, vol. 20, no. 6, pp. 971-998.

Taher, N. B., & Krotov, V. (2016) 'Business process reengineering: addressing sources of resistance and sabotage tactics,' *Journal of Competitiveness Studies*, vol. 24, no. 3, pp. 145-163.

Thamrin, H. M. (2012) 'The influence of transformational leadership and organizational commitment on job satisfaction and employee performance,' International Journal of

Innovation, Management and Technology, vol. 3, no. 5, pp. 566-572.

The Big Five Project. [online] https://www.outofservice.com/bigfive/ (Accessed 21 December 2016).

Vakola, M., Tsaousis, I. and Nikolaou, I. (2004) 'The role of emotional intelligence and personality variables on attitudes toward organisational change', *Journal of managerial psychology*, Vol. 19, No. 2, pp. 88-110.

Verdin, P., Cabocel, E., Celens, J. and Faelli, F. (2011) 'Making Change Work-What managers, executives and staff tell us that really matters', *Review of Business and Economics*, Vol. 56, No. 2, pp. 244-269.

Vom Brocke, J., Petry, M., & Gonser, T. (2016). Business process management. In *A Handbook of Business Transformation Management Methodology* (pp. 137-172). Routledge.

Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977) 'Assessing reliability and stability in panel models,' *Sociological methodology,* vol. 8, pp. 84-136.

Yousef, D. A. (2017) 'Organizational commitment, job satisfaction and attitudes toward organizational change: A study in the local government,' *International Journal of Public Administration*, vol. 40, no. 1, pp. 77-88.

Appendix A

Table A. Questionnaire items for each construct (1 = strongly disagree, 6 = strongly agree)

Questionnaire item	Scale
Attitude towards organizational changes	
I like the introduced change as a result of the redesigned business processes	1 2 3 4 5 6
I have contributed to the departmental changes	1 2 3 4 5 6
The new business processes are better aligned with rest of the departments	1 2 3 4 5 6
Generally, I do not resist to organizational changes	1 2 3 4 5 6
Company's strategy	
I am familiar with the company's strategy	1 2 3 4 5 6
I believe that the departmental changes are supported by top management	1 2 3 4 5 6
The changes offer higher level of alignment with company's strategy	1 2 3 4 5 6
The redesigned process reflect more closely the internal departmental activities	1 2 3 4 5 6
Working conditions	
The company provides excellent working conditions for my career development	1 2 3 4 5 6
I believe that the new working conditions strongly support redesigned processes	1 2 3 4 5 6
I believe that internal organization provides good conditions for employee's well-being	1 2 3 4 5 6
Employees' experience	
I believe that the change increased the performance and reduced the process time	1 2 3 4 5 6
The new business processes increase employee's productivity	1 2 3 4 5 6
The introduced changes have enhanced my satisfaction during everyday activities	1 2 3 4 5 6
Generally, I have positive experience after the processes redesign	1 2 3 4 5 6