



ULBS

Universitatea "Lucian Blaga" din Sibiu

Ph.D. Area: "Management"

Ph.D. Thesis

**CHANGE MANAGEMENT:
AN ANALYSIS OF THE ICT-DRIVEN CHANGE IN
CAMBODIA'S HIGHER EDUCATION INSTITUTIONS
(THE ADOPTION OF BLENDED LEARNING)**

Candidate:

RATANA, SOM

Supervisor:

Prof. Univ. Dr. DĂNUȚ-DUMITRU

DUMITRAȘCU

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SUMMARY

Technology adoption has become not just a trend, but also an obvious need for institutions at large to improve productivity and efficiency of work. In education, the adoption of technology extends far beyond the simple use of Word, Excel, Access and certain forms of Spreadsheet etc. for administrative purpose, but also to a sophisticated employment of such tool and system to replace certain classroom conducts in form of blended learning (flipped classroom, distant learning, online learning). Regardless of the purpose, the adoption of technology ‘as change’ in itself or its employment to mitigate the change has brought about change.

Data shows that two third of institutional change failed due to the inability of managers to manage ‘the change’ (Appelbaum et al., 2012; Burnes, 2011)¹. Common underlying causes of this have been attributable to poor understanding of institutional managers to manage scientific change, their misinterpretation of the changes, and the common institutional challenges caused by inadequate financial supports, outdated technologies, untrained staff, impractical policies, to mention a few. While changes need to be proactively managed for wanted results, they are most oftentimes been responded reactively by managers who viewed ‘management of change’ as just mere response to issues arising from their day-to-day challenges. Their ‘reactiveness’ to change has not only yielded the wanted results but also aggravated the situation, and to the worst, failed the total change effort. Given this, more and more institutional leaders are seeking to understand and find the best way to manage it for its inevitability.

To date, there is unfortunately no ‘magic-bullet’ model of change management. Change methodology is prone to context and bends accordingly to socio and institutional culture. Practices that work best in one social context may not work for others; that even varies from institution to institution where organizational culture is different (Alas & Vadi, 2006; Kezar & Eckel, 2002; Rashid & Rahman, 2004; Tierney, 1988)². The way ‘change’ is managed in a state-

¹ Appelbaum, S. H., Habashy, S., Malo, J.-L., & Shafiq, H. (2012). Back to the future: revisiting Kotter’s 1996 change model. *Journal of Management Development*, 31(8), 764–782; Burnes, B. (2011). Introduction: Why does change fail, and what can we do about it? *Journal of Change Management*, 11(4), 445–450.

² Alas, R., & Vadi, M. (2006). The impact of organisational culture on organisational learning and attitudes concerning change from an institutional perspective. *International Journal of Strategic Change Management*, 1(1–2), 155–170; Kezar, A., & Eckel, P. D. (2002). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts? *The Journal of Higher Education*, 73(4), 435–460. <https://doi.org/10.1080/00221546.2002.11777159>; Kezar, A., & Eckel, P. D. (2002). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive

run institution may differ significantly from that of the one run privately although they share the same nature of business. Similarly, one particular type of business may need a different change methodology from that of the other one inherited differently by its distinct way of dealing with their stakeholders.

With a purpose to model a success of change at one Public Higher Education Institution in Cambodia, the following study was conducted to document how change ‘the adoption of blended learning program’ was managed at the said institution. To start it off, a situational analysis based on ground observation, desktop analysis and face-to-face interview with key informant was conducted to sketch a working change management model. To bold up the sketch, a similar successful case being managed at another institution (sharing similar context) was also bought in. This sketch was then taken to reflect against the existing literatures, seeing if there are such models of change available in the field. Finally, a working ‘conceptual framework’ was drawn and concretized. This framework was constructed based fundamentally on the three managerial aspects of change—type, elements and process. By (2005)³’s synthesis on ‘type’ was taken, covering scale of change, rate of occurrence, and how change comes about. The elements of changes (human, technology and strategy) based primarily on Orlikowski and Yates (2006)⁴ was also adopted, together with that of Judson (1991)⁵’s process of change.

Following the attainment of that (working conceptual framework), thorough investigations were then conducted (abductive approach) to identify the exact model of change management being conducted at the institutions. The (grounded) investigation was supported by both qualitative and quantitative data derived from face-to-face interviews with key informants, focus group discussion, and survey questionnaires with the implementing agencies and other higher education institutions across the country.

To make better sense of the below findings, it’s necessary to understand the overall objectives of the investigation, which aims:

- to confirm the role of change management in the Institution A (IA)’s success story through the analysis of its symbiotic relationship with ICT-driven program (blended learning);

concepts? *The Journal of Higher Education*, 73(4), 435–460. <https://doi.org/10.1080/00221546.2002.11777159>; Kezar, A., & Eckel, P. D. (2002). The effect of institutional culture on change strategies in higher education: Universal principles or culturally responsive concepts? *The Journal of Higher Education*, 73(4), 435–460. <https://doi.org/10.1080/00221546.2002.11777159>

³ By, R. T. (2005). Organisational change management: A critical review. *Journal of Change Management*, 5(4), 369–380.

⁴ Orlikowski, W. J., & Yates, J. (2006). ICT and organizational change: A commentary. *The Journal of Applied Behavioral Science*, 42(1), 127–134. <https://doi.org/10.1177/0021886305285130>

⁵ Judson, A. S. (1991). *Changing behavior in organizations : minimizing resistance to change*. Blackwell Business. pp.165-189.

- to illustrate how (those) changes are managed for successful BL integration at the above institution;
- to identify the change framework (seeing if it falls into any existing theory, or a uniquely emerging one);
- to validate the identified framework for possible replication (for institutions that share common context and culture);
- to further advance the framework by identifying model(s) that can predict change behavior—change involvement and change acceptance—of academic staff in a ‘change program’; and
- to advance scientific knowledge in the field of educational management.

Key finding reveals that success achieved at both studied institutions is an obvious consequence of proper change management adopted by their respective managers. Those successes present themselves in forms of increased students’ satisfaction and participation to the blended learning program, increased lecturers’ involvement and continued program expansion. The changes (adoption of blended learning) per se are managed with the consideration of type, elements and process. To put this into context, to manage change managers key in the scale of change (how big the change should be), followed by what in hands do they have for the change (the element of change which include human, technology and strategy), and how do they process the change (the consideration of process to manage change).

Although their change methodologies were confirmed to be falling largely into the hypothesized framework, they are not fully complying to any of the existing change model. This incompatibility is due largely to the fact that most of earlier theorists touched on the aspects of change (type, elements and process) separately, while this study confirms otherwise that the aspects are combined for a best change model. The finding further denotes that the aspects are not only complimentary to one another, but symbiotically related. The finding also indicates the interrelatedness of human, technology and strategies elements, and that a balance of intervention among these elements is also critical for a successful change management.

In addition to the findings, two types of ‘modellings’ were also constructed. These include a modelling to predict ‘change involvement’ and a modelling to predict ‘change acceptance’. Data showed that academic staff involved in change program were different in regard to their age, year of employment and employment status. These three dimensions could predict the involvement in organizational change. When combined, year of employment was a significant predictor. The data also shed light on ‘change acceptance’. Analysis of six-paired variables—

change acceptance, trust, task and relationship cultures, change process, strategy and technology—confirm positive correlations. There is therefore sufficient evidence to prove that change acceptance can be predicted from these early dimensions, and that relationship culture is found to be a significant predictor.

While fully answering to the above objectives, the findings also reveal a number of critical constraints being faced by the studied institutions. As discussion shows, the practices of change at the studied institutions reflects ‘a limited extent’ of the drawn framework. The incompleteness makes the achieved success unsustainable. Some critical remedies are therefore needed to mend both the practices being implemented on the ground and to readjust the constructed framework to fully reflect an ideal world of change in the context of Cambodian higher education institutions. The revision includes a reconfiguration of ‘institutional culture, and trust’ into change methodology, sustaining technology as tools by way of developing partnership, and the development of policies that are strategic and practical to push change on the ground. The revision should also highlight a need to balance the role of top and middle managers at all stage of change, and give an emphasis on where top or middle manager’s role is more critical to push change ahead.

To lead the readers through to the whole narrative, particularly to the detailed findings and constraints it suggests, this thesis is divided into three main parts, preceded by an introductory chapter, as follows:

Chapter 1 covers the introduction to the thesis. This chapter aims to guide the reader to some background of the research, introduce the readers to the problem, and inform them of the main objectives to be explored. Sticking to the main purpose of the study and the set objectives, this chapter briefly explains the methodology (qualitative and quantitative means) from which the answers are sought. On top of presenting persuasive motivation, this chapter also highlights many interesting significances contributed specifically to the researcher and to the field of change management at large.

Part I of the thesis deals specifically with the current state of scientific knowledge in the approached field, known as the reviews of literature. This part covers four main chapters. Chapter 2 presents the landscape of change caused by the rise of new technology, both tools and systems. This chapter highlights key technological tools being employed in the field of education and the impacts they have on educational administrators, students and teachers and on their academic strategies as a consequence of the change. Core to this chapter is an affirmation that technology adoption is an inevitable move and with the adoption per se, change occurs. From this general landscape, Chapter 3 zeros in on changing academic paradigm caused

by the adoption of the ‘blended learning’. This chapters presented both the successful and failing cases of blended learning, particularly in the context of developing world where resources is limited. Linking with the earlier, this chapter aims to look primarily on how blended learning is integrated, and what challenges the adopting institutions are facing, and how they manage to deal with them. Specific to this chapter is an effort to search for best model of change methodology in the context of the developing country.

As earlier pointed out, the adoption of technology brings about change. To get the best use of the adopted technology is to properly manage ‘the changes’ it has caused. Chapter 4 hence dealt in-depth into the landscape of change and its management methodology, presenting different views on change, its relationship with technology and how culture plays a role on change and the management of change. The focus on cultural dimension on change was taken seriously in this chapter as more and more literatures suggest that institutional culture and trust have a significant influence on change. In other words, change is fluid based on the culture that governs it. Holding culture in constant, this chapter further explores the ‘the best change methodology’ by reflecting through all the theories of change dated back to the 50’s of Kurt Lewin’s planned change approach, to the era of emergent change theories (90’s) of those of Kanter, Stein, and Jick (1992)⁶ and Kotter (1996)⁷, and to the contemporary ones of Orlikowski and Yates (2006)⁸, Bamford and Forester (2003)⁹ and others. Despite none is found, this chapter enlightens the researcher on three key managerial aspects of change which have been factored in by all the theorists when changes were managed, regardless of generation. The management of change involves the consideration of ‘type’, ‘elements’ and ‘process’. These three managerial aspects of change have therefore become a fundamental basis for the researcher to look into the cases being implemented at the IA and DoE of the IB.

Towards building a research niche, and drawing a ‘working conceptual framework’ that reflects the above cases, Chapter 5 take chances to present a general framework of e-readiness (technology readiness) and the status of change management in the context of Cambodia’s higher education institution. This chapter layouts relevant policy framework at three main levels

⁶ Kanter, R. M., Stein, B. A., & Jick, T. D. (1992). Challenge of Organizational Change: How Companies Experience It And Leaders Guide It. In *The Free Press*.

⁷ Kotter, J. P. (1996). *Leading change*. Harvard Business School Press.
<https://books.google.com.kh/books?id=ib9Xzb5eFGQC>

⁸ Orlikowski and Yates (2006).op.cit.

⁹ Bamford, D. R., & Forrester, P. L. (2003). Managing planned and emergent change within an operations management environment. *International Journal of Operations & Production Management*, 23(5), 546–564.

of authority (the macro, meso and micro) wherein it suggests both the opportunities and challenges at each level, pointing to possible mitigating strategies, one of which is a ‘need to build an effective change management model out of the ground success’ which the whole policy across levels failed to address.

Part II focuses mainly on research niche, a working conceptual framework and the research methodology. This part covers three main chapters, chapter 6, 7 and 8. Chapter 6 presents a research niche synthesized from a situational analysis conducted at both IA and IB. The niche centers mainly on a development of a working model out of the ground success to explain the two cases, and to build up a scientific model for change management, at least for the Cambodian higher education context. Based on the situational analysis, a working conceptual framework covering the three main aspects of change ‘type’, ‘elements—human, technology and strategy’, and ‘process’ was brought to an attention in Chapter 7 to explain the phenomenon. Chapter 8 illustrates relevant methodologies used to get the results. This chapter discusses in details both qualitative and quantitative methods wherein the researcher used to extract necessary information out of the ground practices. While desktop analysis, face-to-face key informant interviews and focus group discussion were all used as techniques for qualitative observation, survey questionnaires (into different sets) were used as technique for quantitative methodology. This chapter also explains how the collected data was than polished and processed to inform the finding.

Part III of the thesis covers eight chapters, centering on findings and discussion. Entitled as ‘qualitative findings’, Chapter 9 unfolds critical findings about the managerial aspects of change—the type and elements. This chapter informs that changes at both the IA and DoE of the IB are managed with a consideration of type and elements—human, technology and strategy. Change programs started from small scale, and get increased continually. The changes are characterized by a mix of top-down and bottom-up intervention. Chapter 10 offers a unique finding about ‘the process’ of change. This chapter informs the researcher of the adopted process which leans largely on the one prescribed by Judson (1991). While confirming that the earlier process of change (Kurt Lewin’s planned change) and the contemporary ones of Kanter et al. (1992), Kotter (1996), Olikowski and Yates (2006)’s are irrelevant, this chapter also highlights challenges to Judson’s process, particularly on ‘moving change to a desired state’ and ‘institutionalizing change’. Besides from the process per se, this chapter also presents other findings including the change acceptance variables, communication methods being employed at both institutions, and other challenges when change was processed. Chapter 11 alone was dedicated to ‘moving change from a status-quo to a desired state’ and ‘institutionalization’.

While this chapter initially confirms the success achieved by both institutions, it also aims to highlight significant constraints impeding a large-scale success.

Chapter 12 focused solely on the quantitative findings. This chapter reveals significant data, some of which is found to be incongruent with the qualitative finding. Most significant to this chapter is the presentation of two ‘modellings’ that help predict change involvement and change acceptance of staff, together with a confirmation of the correlation between change acceptance, and the combined variables, including trust, institutional culture, change process and elements. This chapter helps the researcher in particular to develop a ‘model’ to predict change which is a significant add-on to the earlier constructed framework.

Chapter 13 deals with ‘discussion’. It touches on three important aspects, which include (1) that change at both IA and DoE of the IB are successful; (2) that the adopted management methodology is complying largely to the constructed framework, and (3) that human factors, particularly top leadership, is most critical for change success given the context of Cambodia. Chapter 14 presented however that change at both institutions is still at ‘its early stage of change adoption/implementation’. This limitation is attributable to four important challenges which include the misinterpretation of the concept of change management by top leadership, the centralization of power as revealed by top-down intervention management style, the overwhelming challenges in the elements of change, and the confused change process (change authority). Considering both strengths and weaknesses earlier highlighted, Chapter 15 works to propose an ideal change management framework that fits best with the Cambodian context. This chapter suggests that the proposed framework is [practical], yet it [the constructed framework] needs to be revised to fit better with the context of Cambodian culture. The revision covers the inclusion into the framework of the cultural and trust dimensions (the modelling), government and private partnership to ensure the availability of updated technologies, self-sustaining strategic policies and the assurance of institutional financial support, particularly when change needs to be institutionalized.

Chapter 16 concludes the whole thesis. This chapter portrays a ‘new framework’ that is practical for the Cambodian higher education context, briefly re-presents the main findings to recap the overall objectives, while also offering limitations the researcher faced during the conduct of the thesis. Considering the limitations presented therein, the researcher also offers future recommendations to the next researchers to pay their special attention to certain aspects that needs to be reconfirmed in their future researches. To offer scientific validity of the thesis, this chapter also highlights the extent the research was used (in forms of publication as scientific

papers, conference proceedings, and research reports) to contribute to the field of knowledge of change management.

It is worth acknowledging that many parts of the sixteen chapters in this doctoral thesis were published as seven scientific papers, in scientific journals indexed in international databases and were presented at three international conferences in the field of management.

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