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PREDICTING ACADEMIC STAFF INVOLVEMENT IN ORGANIZATIONAL CHANGE FROM DEMOGRAPHIC FACTORS

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Abstract: Getting people involved in organizational change is one of the priorities of change management process. But the questions lie how that objective could be done while the urge of resistance is too much to handle. Previous studies found employees resist or involve in change from cognitive and psychological commitment, but their personal background should be one among other determiners. This study applied demographic factors to predict the involvement of academic staff at two public higher education institutions in Cambodia in a change initiative (implementing blended learning into their academic program). The study was investigated on several constructs comprising age, year of employment, employment status, previous employment experience in private sector and education experience with the change involvement. Statistical software-SPSS-v26 was used to perform chi-square tests and logistic regression analysis. The findings revealed that academic staff involved in the change program were different in regard to their age, year of employment and employment status. And these three dimensions could predict the involvement in organizational change while combined together, and year of employment was a significant predictor.

Keywords: change Involvement, organizational change, resistance to change, demographic factors

1 INTRODUCTION

Attempt to make organizational change inevitably encounters resistance, and two-third of those initiatives failed (Burnes, 2011; Kotter & Schlesinger, 2008). Finding the root causes of the problems are the main priority of many studies, yet different social and working context has made the investigation diverse and perplexing. Gathering people on board, building change coalition, cultivating relationship-based culture and trust are the key strategies to mitigate change (Alas & Vadi, 2006; Kotter & Schlesinger, 2008), yet these are easier said than done.

A great deal of studies has discussed the mainstream topic of resistance to change and change readiness (Madsen et al., 2005; Samaranayake & Takemura, 2017; Shah & Shah, 2010; Spence, 2020). Most talk about organizational change was done with young, energetic and innovative employees embedded with a stereotype that old workers tend to resist the change with a rigid mindset (Finkelstein, Burke & Raju, 1995; Kunze et al., 2013). Others

investigated the resistance of employees from cognitive, rational and psychological commitment, but a dearth of research was done on demographic perspective, particularly in developing country context (Samaranayake & Takemura, 2017).

Rather than using the term change resistance, this study aims to investigate the effect of demographic factors on organizational change involvement and predict it. For the above purpose, the study collected the data from two leading higher education institutions (HEIs) in Cambodia at which, at the time of this study, they have been implemented a change or new teaching program (blended learning) into their curriculum for a few years. To maintain the anonymity of the institutions, the name of the two HEIs is hereafter denoted as IA and IB. The study laid its focus on academic staff and management teams including the top and middle managers, (e.g. rector, deans, head of departments) and lecturers.

Following this part, the paper is structured by starting with the review of the relevant literature by identifying the research gap and conceptualizing the framework. Following this, it is the presentation of the methodology, and research findings. Then, the results are taken to discuss against existing literature to produce new knowledge and contributions to the field. The paper ends with a conclusion and future recommendations.

2 LITERATURE REVIEW

The study on organizational change has been done excessively for decades and resulted in numerous change models. Despite having been constructed for years, Kurt Lewin's force-field theory or three-step change model is still relevant and widely adopted in many cases (Burnes, 2004; Burnes & Cooke, 2013). To attain the force for change, it is inevitably in need of alleviating resistance to change. Lunenburg (2010) supported Lewin's take by emphasizing that, among others, increasing participation and involvement of staff in the planning and implementing change would reduce the possibility of resistance. Hence, it is not uncommon that there is a myriad of literature can be found on change resistance theory and organizational change readiness.

Madsen, Miller and John (2005) proved that the readiness for organizational change has a significant relationship with a demographic factor, particularly the number of children of employees. This relationship has been supported by Shah and Shah (2010) who investigated the same matter in a public institute in a developing country context. This infers that the number of dependents helps prepare employees to be open and ready for organizational change. Nevertheless, this assumption is doubtful due to the fact that big family members tend to distract employees from work. Besides, Madsen et al. (2005) confirmed that the relationships between organizational change readiness are also connected with employees' social relationships at work. This is congruent with many other studies that raise the value of relationship-based culture for organizational change (Alas and Vadi, 2004).

In Shah and Shah (2010) study, employee readiness for organizational change was explored from demographic dimensions consisting of age, gender, marital status, tenure in the company, tenure in position, job status, spouse, number of children, and education constructs with the readiness. Besides earlier association, multi analysis of variances (MANOVA) analysis revealed the relationship between employees' employment status and readiness for change meaning that staff's employment had a role to determine individual openness. Hence, to involve in change depends much on the position one holds, whether he or she is a lecturer, assistant professor, associate professor or professor. However, there was not enough statistical proof on the relationships

between organizational change readiness with years of employment and education level.

The change readiness was also explored by Samaranayake and Takemura (2017) with 230 fulltime employees including executives, supervisors and operational staff. Viewing from a demographic perspective, the authors found statistically significant relationships between the readiness for organizational change and educational level, and readiness for change and total work experience (including previous employment). From these findings, it suggested that the higher degree of employee make them more open and ready for organizational change. However, other factors such as gender, age, marital status, professional level or employment status had no significant relationships with the readiness in that study.

Madsen et al. (2005) also raised that interesting relationship between age and organizational commitment. Different from the earlier evidence, the study found that older employees were more committed to change than younger colleagues. And positive attitude at work among workers and towards managers did facilitate an environment to change involvement. Supporting this take, Kunze et al. (2013) observed specifically on individual resistance and found a negative relationship between age and resistance to change among employees in 93 firms in Germany. Rejecting the common stereotype, the study confirmed that young employees were more resistance than their older peers. The authors emphasized the concerns on this, given that resistance among employees would result in low work performance and it was negatively correlated to goal accomplishment. Meanwhile, Spence (2020) investigated the resistance to change of employees in Singapore and the US, by checking whether age could moderate the relationship between perception of emotions and resistance to change at work. However, there was not enough statistical evidence on such relations.

To provide insight on employee involvement, Pogson et al. (2003) mentioned so-called career stages defined into three categories which are the trial stage (<31 years old), the stabilization stage (31-44 years old), and the maintenance stage (45 years old and older). Employees who fall in the first group tend to be in the process of determining interests and capabilities, and linking them with their jobs, the second group is associated with concern on their employment path and be consistent in life. The last group seeks for nothing besides maintaining their existing work and position. From this, there is a stereotype claimed that older workers are more rigid, short-termed focused and resistant; and more importantly, they are less likely to involve in the change (Finkelstein et al., 1995; Kunze et al., 2013).

In addition, Reynold's model for change proposes four stages starting with denial, resistance, exploration and commitment (cited in Keup, Walker, Astin and Lindholm, 2001). From this, a reflection could be made that the involvement of academic staff in change could be perceived to be in the exploration stage, once they had experienced a strong rebellion.

Although the term involvement lays a broad concept, Morgan and Zeffane (2003) would offer insight on this by separating the term to distribution of power and the scope of decision making. By this, the involvement appears in degree and structure that the employee has exercised. In addition, Lawler (1991) would see the involvement as the participation of staff in four dimensions which are power, information, knowledge and rewards.

In this study, the researchers viewed the 'involvement' from three levels comprising top, middle management and ground staff. The involvement from these people are the academic staff who share commitment towards change and take part in the change project in terms of power, information, knowledge and rewards. For instance, a part of academic staff may involve in the change as implementers by

attending the change trainings, share ideas and commitment with the team (though they have not adopted new technology into their academic setting), while the other group at the top (rectors, deans and heads of departments) work as change initiators. They are the one who propose, initiate and coordinate the change.

In addition, demographic dimensions are divided into academic staff's age, years of working (tenure), employment status, education experience (abroad), and previous employment in private sector.

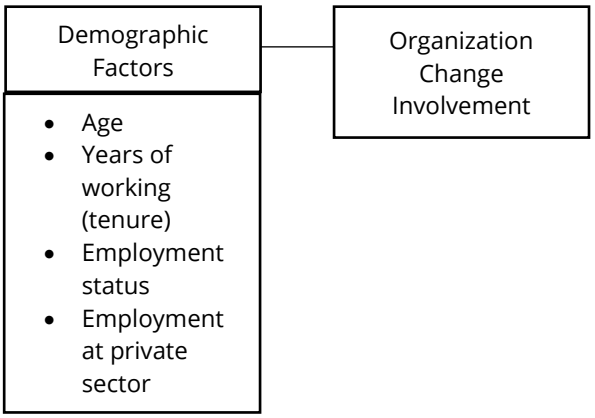

Figure 1. Demographic factors associated with organization change involvement

Research questions

1. Do academic staff that are involved and not involved in the change program differ significantly in regard to age, years of employment (tenure), experience in private sector, education, and employment status?
2. Can 'change involvement' of academic staff be predicted by a combination of *age*, *years of employment*, and *employment status?*

3 METHODOLOGY

This study employed convenient sampling with volunteer participants who were academic staff at two public higher education institutions in Cambodia. These staff had experienced in the change program (integrating blended learning) for a few years. From the total population of around 350 academic staff, the study received 217 responses in return. As a data collection procedure, a set of questionnaires and consent forms were sent to top management (rectorate and deanery), all heads of the departments and subordinate staff (lecturers) online. There was only one department of the IB (Department of English-DoE) that participated in this survey since the rest of the departments had not widely introduced change (integrated blended learning) into their program.

The survey questionnaires cover participants' background information concerning age, employment status, experience in private institutions, education, year of employment (tenure) and information about the change involvement. Information received from participants was then inserted into SPSS-v26 for analysis.

4 FINDINGS

4.1 Participants' background information and experience in change

The table below illustrates the overall information of the participants including their working institutions, age group, gender, previous employment experience in private sector, education abroad, year of employment, employment status, and current position.

Table 1. Participants' demographic information

		n	Percent
Institution			
	The DoE of IB	42	19.5
	The IA	173	80.5
	Total	215	100
Gender			
	Male	164	76.3
	Female	51	23.7
	Total	215	100

Age			
	20-30	75	35.7
	31-40	101	48.1
	Above 40	34	16.2
	Total	210	100
Year of employment			
	Three year or less	148	69.2
	More than three years	66	30.8
	Total	214	100
Previous employment at private sector			
	No	111	51.9
	Yes	103	48.1
	Total	214	100
Employment Status			
	On-contract	104	48.4
	Civil servant	111	51.6
	Total	215	100
Current Position			
	Lecturers	188	87.4
	Deputy or Head of the Department	15	7
	Deans or Rector	12	5.6
	Total	215	100
Education Abroad			
	No	49	22.8
	Yes	166	77.2
	Total	215	100

In this section, participants were asked about their information related to the change program concerning whether they have acknowledged about the change, and their involvement. The result reveals that the majority of academic staff n=132 (61.7%) have acknowledged the change program (Head of the Center/Department are certain that all academic staff have been informed about this change program), but only 93 people accounted for 43.5% of total responses have actually involved in the change plan. Within this participation, 61.3% of them have practised the change more than a year.

Table 2. Participants' information about change management

		n	Percent
Receiving Information about Change			
	No	82	38.3
	Yes	132	61.7
	Total	214	100
Involvement in the Change Program			
	No	121	56.5
	Yes	93	43.5
	Total	217	100
Duration in the Change Program			
	One year or less	36	38.7
	More than one year	57	61.3
	Total		100

4.2 Comparing staff involvement with demographic factors

To investigate whether academic staff that have been working less than three years and those who have been working for more than three years differ on whether they involve in the change program, a chi square statistic was conducted. Assumptions were checked and were met. Table 3 shows the Pearson chi-square results and indicates that academic staff who works less than three years and those who work more than three years are significantly different in their involvement in the change program (X^2=11.85, df=1, n=213, p=0.001). Staff who works less than three years are more likely to involve in the change to adopt BL. Phi which demonstrates the strength of the association between the two variables, is .24 presenting smaller than typical size effect according to (Cohen, 1988).

Table 3. Chi square analysis of change involvement and years of employment (phi=0.24)

Variable	n	Change Involvement		X^2	p
		No	Yes		
Years of employment				11.85	0.001
Three years or less	147	72	75		
More than three years	66	49	17		
Total	213	121	92		

Table 4. Chi-square analysis of change involvement and year of previous employment at private sector

Variable	n	Change Involvement		X^2	p
		No	Yes		
Previous employment at private sector				0.072	0.788
No	110	61	49		
Yes	103	59	44		
Total	213	120	93		

To check whether academic staff that used to work and who did not use to work in private sector differ on whether they involve in the change program, a chi-square statistic was conducted. Assumptions were checked and met. Table 4 shows the Pearson chi-square results and indicates that these two groups of academic staff are not significantly different in their involvement in the change program (X^2=.071, df=1, n=213, p=.79).

To check whether academic staff that have studied abroad in a degree or course more than a year and those who have not differ on whether they involve in the change program, a chi-square statistic was conducted. Assumptions were checked and were met. Table 5 shows the Pearson chi-square results and indicates that employees who have studied abroad and who have not, are not significantly different in their involvement in the change program (X^2=.38, df=1, n=214, p=.54).

Table 5. Chi-square analysis of change involvement and education abroad

Variable	n	Change Involvement		X^2	p
		No	Yes		
Education abroad				0.378	0.539
No	48	29	19		
Yes	166	92	74		
Total	214	121	93		

To investigate whether academic staff that are in the age group of 'below30', '31 to 40' and 'above 40' differ on whether they involve in the change program, a chi-square statistic was conducted. Assumptions were checked and were met. Table 6 shows the Pearson chi-square results and indicates that academic staff in the age group of 'below30', '31 to 40' and 'above 40' are significantly different in their involvement in the change program (*X^2=10.48, df=2, n=209, p=0.005*). Academic staffs who are in the age group of 'above40' and '31 to 40' are more likely to involve in the change to adopt BL than those in the age group of 'below 30'. Phi which demonstrates the strength of the association between the two variables, is .22 presenting a small size effect according to Cohen (1988).

Table 6: Chi-square analysis of change involvement and age (phi=0.22)

Variable	n	Change Involvement		X^2	p
		No	Yes		
Age				10.483	0.005
Below 30	75	53	22		
31 to 40	100	49	51		
Above 40	34	15	19		
Total	209	117	92		

To investigate whether academic staff that hold civil servant and on-contract working status differ on whether they involve in the change program, another chi-square statistic was conducted. Assumptions were checked and were met. Table 7 shows the Pearson chi-square results and indicates that academic staff hold civil servant and on-contract working status are significantly different on their involvement in the change program (X^2*=5.11, df=1, n=214, p=.02*). Academic staff who are civil servants are more likely to involve in the change to adopt BL than those who are on-contract staffs. Phi which demonstrates the strength of the association between the two variables, is .16 presenting a small size effect according to Cohen (1988).

Table 7. Chi-square analysis of change involvement and employment status (phi=0.16)

Variable	n	Change Involvement		X^2	p
		No	Yes		
Job Status				5.114	0.024
On-Contract	104	67	37		
Civil Servant	110	54	56		
Total	214	121	93		

4.3 Predicting change involvement by a combination of age*,* years of employment*, and* employment status

From the early chi-square tests, the researchers found that the involvement of staff in the change program is significantly different in terms of their age, years of employment and employment status, while it is not that significant in regards to education abroad and work history at private sector. The researchers therefore advanced further to investigate whether the early three factors-age, years of employment (tenure), and employment status-could be the predictors of change involvement.

Logistic regression was conducted to assess whether the three predicting variables age, years of employment and employment status, could significantly predict whether or not an academic staff involve in the change program. When all three predictor variables are considered together, they significantly predict whether or not an academic staff involve in the change program, $X^2 = 15.12$, *df*=3 , *N*=208, *p*=0.002. Table 8 presents the odds ratios which suggest that the change in 'years of employment' category (working less than 3 years) to the other category (working 3 years or more) would make approximately 56% less likely that one would involve in the change program. The regression coefficient of the other two variables was not significant, indicating that age group and employment status did not have significant effects on the change involvement category.

Table 8. Logistic regression model predicting academic staff involvement in the organization change

Variable	Beta	SE	*p*	Odds Ratio
Age	0.27	0.23	0.25	1.03
Years of work	-0.83	0.41	0.042	0.44
Employment status	0.13	0.24	0.59	1.14

5 DISCUSSIONS

The above findings proved that the two groups of staff (involved and not involved in the change program) are significantly different in terms of their age group, years of employment and employment status. In other words, the group of academic staff who are in the age group of '30-40' and 'more than 40' involved in the change program more than the youngest group

whose age is 'below 30'. This finding supports Pogson et al. (2003)'s take whose three stages of employment truly present the behaviour of academic staff in this case. Those employees who are in the stabilizing stage (31-40) tend to be active and open to any change. They concern more on their career advancement and work with purposes. There is no wonder why the youngest group is inactive and complacent, because they are still searching for life and work motivation (Pogson et al., 2003). The reason behind the elder group (at the age above 40) involvement in organizational change, in this case, can be acknowledged that the majority of them are still in the early 40s which makes them no different from the middle group (30-40). This finding is also congruent with previous studies that argue old employees are more open and ready for organizational change (Kunze et al., 2013; Madsen et al., 2005; Samaranayake & Takemura, 2017), yet opposing the employment stereotype of Finkelstein et al. (1995).

In addition, academic staff, who have worked less than three years at the IA and the DoE of IB, partake in the change program more than those who have worked more than three years. At this point, it supports the relationship between years of employment and readiness for change found by Samaranyake and Takemura (2007), albeit other studies could not identify the associations (Madsen et al., 2005; Shah & Shah, 2010).

Furthermore, this study found that employees who hold civil servant status (official) involve more in change program than those who hold on-contract employment status. This concretizes the previous study of Shah and Shah (2010) suggested that role of professional work is associated with the readiness for change, mainly because they are lecturer, assistant professor, associate professor, or professor. It is important to note that in the context of Cambodian higher education, employment status, roles and identity of the scholar or academic has not yet reached a consensus (Vutha et al., 2020). There is still room for further debate, but what could be the main distinction is whether they are official, or on-contract academic staff.

Predicting model on change involvement was also constructed in this study. The result revealed that three factors including age, years of employment and employment status can predict whether or not academic staff would involve in the change program. In addition, years of employment (tenure) was found to be a significant predictor in the model. This implies that once an academic staff has worked more than three years, they are less likely to involve in the change program. Following this finding, organization leaders must be cautious when initiating any change. The complacency at the workplace for many years may impede the willing of the employee to change, although other factors could also be the reasons (Alas & Vadi, 2006; Madsen et al., 2005; Samaranayake & Takemura, 2017; Shah & Shah, 2010).

6 CONCLUSIONS

The findings in this paper indicate that there were not many academic staffs at the IA and IB involved in the change program, compared to the total population, which reflected the need for management team to gather more people on board. Interestingly, the study found that academic staff involved in change were significantly different in terms of their age, years of employment and employment status. In addition, when the three constructs are combined together, they did well predict the change involvement of academic staff, and the significant predictors fell on 'years of employment'.

Following studies may take the concept of change involvement into account instead of working excessively on change resistance and readiness per se. Choosing alternative constructs for exploration could be a choice, while applying the study in a different context

would expand the body of knowledge either, given the diverse working culture of each entity and society.

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