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SOCIAL CAPITAL AND ORGANISATIONAL COMMITMENT AT HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

This study compares the extent of the influence of non-tangible forms of social capital on organisational commitment at Universiti Sains Malaysia (USM), in Penang, Malaysia and two universities in Sumatra, Indonesia, which are, Universitas Andalas and Padang State University (APU). Amongst the academic staff at USM, three social capital factors—collective action and shared values, relational trust and cooperation, and cohesive bonds and connectivity through participation—have a strong positive impact on affective and normative commitments. At APU, only the factor of cohesive bonds and connectivity contributes to affective commitment. Collective action and shared values as well as cohesive bonds and connectivity were shown to have contributed to higher normative commitment. Relational trust and cooperation, which are important indicators of social capital, did not seem to have any impact on the three organisational commitments. At USM, continuance commitment was negatively related to cohesive bonds and was not related to any other predictive variables. At APU, higher collective action and shared values reduced continuance commitment.

Keywords: social capital, organisational commitment, higher education

INTRODUCTION

Social capital amongst the staff in an institution is one of the critical factors influencing long-term organisational learning and performance culture. Understanding the role that social capital plays at work and its relationship to positive values and organisational commitment in the workplace is of central importance. These relationships allow us to understand the inner workings of organisations and the way in which people can maintain and improve the performance and learning cultures in their organisations. Cultural and social

context matters in organisations, and one of the important tasks of research is to investigate and compare different contexts to attain a deeper and more nuanced understanding of social capital and commitment. Different contexts may produce different results, and even within similar social-cultural environments, differences in local influences and culture can have potentially significant impacts.

Nahapiet and Ghoshal (1998, p. 243) define social capital as "the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus compromises both the network and the assets that may be mobilised through that network". Social capital comprises three aspects: structural, relational and cognitive. Structural network refers to the networks that a person engages with and the objective structure of external interactions. Structural social capital has the capacity to affect and, in some cases, even replace more formal information sources in terms of its impact on productivity performance and innovation (Burt, 2000). Status in the social hierarchies necessary for knowledge innovation and performance is contingent on one's ability to access and engage structural social capital (Lin, 1999). An individual possessing good integration into structural social capital can sometimes outweigh another individual who may possess similar or improved levels of " information" or knowledge (levels of human capital) but who may lack such structural integration (it's not what you know but who you know that counts) (Burt, 1997). The significance of structural social capital and under what conditions it is formed and realised is significant for several reasons. Robert Putnam (2007) argues involvement in broader networks can help to develop capacities that are transferable to local institutions. This is because strong forms of social capital, created through positive interaction in a social milieu, create positive and important competencies that have transferable impacts on the work environment.

Relational social capital refers to "the nature of the connections between individuals in an organisation" (Bolino, Turnley, & Bloodgood, 2002, p. 506), or the quality of interrelations within an organisation (Tsai & Ghosal, 1998; Gonzalez-Brambila, Veloso, & Krackhardt, 2008). As we discussed above, the nature and asymmetry of inclusion and exclusion can deeply affect one's ability to develop structural social capital (Coleman, 1988). In terms of relational social capital, the extent to which an individual has developed relationships of trust and shares the social norms of his or her colleagues is deeply correlated with issues of personal success and performance (Fukuyama, 1997).

Nahapiet and Ghoshal (1998) argue that the term "relational embeddedness" describes the kind of personal relationships people have developed with each other through a history of interactions. Relational embeddedness is critical for

understanding performance and success in organisations. Arguably, relational embedded social capital has an even more important influence on innovation-oriented performance where the quality and nature of relations and cooperative inputs are key to generating innovative ideas, synergies and providing social support for the risks and time necessary to innovate (Moran, 2005).

Cognitive social capital refers to the cohesive perceptions, norms, values, and beliefs and opinions that people have of others in regards to cooperation and trust. Cognitive dispositions manifest as cohesive bonds and positive views in regards to associational activity. Cultural and ideological norms and values that are cognitively held by employees contribute to cooperative behaviour. The existence of positive cognitive social capital can reduce the transaction costs of cooperation in an organisation that otherwise may stymie collaboration and innovation (Bolino et al., 2002). The importance of cognitive social capital is that it rationalises cooperative behaviour in an organisation and makes it respectable and normatively acceptable. Cognitive social capital in our study refers to the significance of self-perception in forming positive social interactions. Positive self-perception and a positive sense of shared cognitive values and norms legitimise interactions and drives cooperative relations.

Social Capital and Organisational Commitment

According to Allen and Meyer (1990), commitment to an organisation can be divided into three essential types: Affective commitment, normative commitment and continuance commitment. Affective commitment develops when the staff becomes involved in and recognises the value and relevance of his/her identity as an aspect of their association with their organisation (O'Reilly & Chatman, 1986). Affective commitment among staff is accentuated when staff feels that the organisation respects and supports them. The development of such affective commitments lies at the nexus between the identities of staff and the way these identities are reinforced and realised through social interactions, social recognition and day to day social capital. Normative commitment develops and is inculcated when the staff internalises the organisation's norms and values through day-to-day socialisation and engagement. Such socialisation entails staff receiving certain benefits, some tangible and others intangible, that incline them to feel the need to reciprocate and internalise and the values and norms of the organisation. Continuance commitment is based on staff recognising the costs of staying or leaving their organisation. Calculating these costs is the basis of continuance commitment (Rego & Cunha, 2008).

The development of strong interpersonal bonds and loyalties between members of an organisation shows a strong correlation to normative and affective commitment to the organisation. The sharing of norms, values, and affective

attitudes between staff underpins successful exchanges and cooperative relationships (Liden & Maslyn, 1998), which are the basis of long-term organisational health and growth. Socially embedded contextual and reinforced practices (aspects of social capital) help to shape forms of commitment to an organisation. These forms of commitment are themselves related to the quality and depth of "job embeddedness" (Holtom & O'Neill, 2004), which is critically influenced by social capabilities and practices in the workplace (Lee, Mitchell, Sablynski, Burton, & Holtom, 2004). The extent to which staff deeply embed and share common norms, values, and forms of affective loyalty to an organisation impacts their capacity to collaborate, perform and innovate.

The production of deep and dynamic social capabilities (Coff & Blyler, 2003) requires normative and affective commitment, which also strongly impact organisational stability. Dynamic social capability rests on long-term development of positive social capital, long-term buy in by staff, and continuous capacity building and learning the culture in an organisation. Deep and dynamic social capability in an organisation is the critical basis for the rapid uptake of opportunities, quick adaption to technology, and the ability of organisations to adapt, compete and perform (Abramovitz, 1986). Normative and affective commitment generates loyalty and continuance in an organisation and suggests that performances that draw upon and express these factors have deeper and "thicker" characteristics.

The key issue at stake is the extent to which an organisation relies on the generation of strong commitments and social capacities as a basis for long-term development of performance. Without critical and dynamic social capacity, which we have argued is grounded in positive development of long-term educative social capital and commitment, performance culture in an organisation is severely diminished. Organisational commitment is "multidimensional in nature, involving an employee's loyalty to the organisation, willingness to exert effort on behalf of the organisation, degree of goal and value congruency with the organisation, and desire to maintain membership" (Bateman & Strasser, 1984, p. 95). Commitment results in part from solid interaction, membership and engagement with an organisation's goals and values and engagement in the organisation's social milieu. Deep commitments to an organisation, its values, and the people in it are the basis of deep social capability building. The dynamism of organisations and their capacity to perform rests on social capacities and commitments, which can never be taken for granted in an organisation and must always be tended.

Numerous studies have been carried out to examine the role of social capital on organisational commitment. Alikhani, Fadavi and Mohseninia (2014) examined the relationship between social capital and organisational commitment amongst regular employees at an Iranian bank. Their findings indicated that social capital, measured in terms of trust and communication, has positive and meaningful contributions to affective, normative and continuance commitment. Similar outcomes were found amongst nurses working for a large Taiwanese medical centre where perceptions of social capital have significantly impacted the extent of organisational commitment, which in turn significantly influenced customer-oriented pro-social behaviour (Hsu, Chang, Huang, & Chiang, 2011). Another similar study on police officers in the Kyrgyz National Police also indicated similar findings between social capital and organisational commitment (Bakiev, 2013). Propensity to trust, a main proxy for social capital, was also found to be strongly related to affective and normative commitments amongst employees of four mid-sized pharmaceutical companies in India (Nambudiri, 2012). Mulki, Jaramillo and Locander (2006) studied the relationship between perceptions of ethical climate, trust, job satisfaction and organisational commitment in the context of pharmaceutical salespeople. They found that trust in the supervisor affected organisational commitment through job satisfaction. The extent of social relationships at work is one of the factors that influenced organisational commitments besides the type of work, rewards, and remuneration and opportunities for promotion and career advancement in the company (Riggio, 2009). Spector (2008) stated that job satisfaction relates most strongly to affective commitment. Similar outcomes were found in other studies such as Watson and Papamarcos (2002) and Cohen and Prusak (2001).

A meta-analysis carried out by Weslund and Adam (2010) summarises 15 years of empirical research based on 65 studies on various spatial levels on social capital and economic performance. They found clear positive connections between different measures of social capital and performance. Stam, Arzlanian and Elfring (2014) synthesised empirical findings from 59 studies (N = 13,263) on the performance effects of entrepreneurs' social capital. They found that network diversity had the strongest relationship with performance. Another interesting finding from their meta-analysis showed that the social capital—performance relationship was stronger for non-financial performance outcomes, which may include intangible outcomes such as commitment.

The significance of affective and normative commitment to organisational performance over the long term is an important aspect of organisational theory and research. Organisational commitment is largely defined by an employee's willingness to stay on as part of an organisation. Affective commitment relates to emotional aspects of commitment, continuance commitment relates to the costs of staying or leaving and normative commitment the "feelings of obligation

towards the organisation" (Meyer & Allen, 1984, p. 375). Staff with strong continuance commitment will feel no tendency to contribute to their organisation beyond what is needed to keep their jobs (Rego & Cunha, 2008). This type of commitment may lead to undesirable work behaviour (Allen & Meyer, 2000).

Many studies have been carried out to examine the role of social capital on organisational commitment in firms' environment. Some recent works have expanded their scopes of similar studies to banking and public sectors such as healthcare and police force. However, not many have focused on social capital and commitment in higher education institutions. Our study compares the extent of influence of non-tangible forms of social capital on organisational commitment at Universiti Sains Malaysia (USM), in Malaysia, with two universities in Sumatra, Indonesia, which are, Universitas Andalas and Padang State University (APU). Comparing Indonesian and Malaysian higher educational institutions provides us with an interesting way in which to understand the differences that context can make to researching social capital and commitment. In our study, we take a close look at various aspects of social capital and seek to understand their relationship with affective, normative and continuance commitment. By taking a comparative approach, we aim to elucidate the ways in which different contexts can have effects on how the relationship between social capital and organisational commitment manifests.

We hypothesise that higher social capital levels contribute to higher normative and affective commitment, and lower continuance commitment. This study also analyses the relationship between organisational commitments and respondents' backgrounds such as age, gender, and length of service.

METHODS

This comparison study is based on responses we have gathered from 376 academic staff from USM and 82 academic staff from APU. As shown in Table 1, data from USM indicated that mean age is 43.2 years, the minimum age is 24 years, and the maximum age is 65 years. Approximately 55% are male, and 62.8% are from the Science Stream and 37.2% are from the Arts Stream. Approximately 25.5% of the staff have been working at the university for more than 16 years, 36.4% for less than 5 years, 26.1% between 6–10 years and 11.2% between 11–15 years. The majority of the staff are senior lecturers (56.1%). 6.9% are professors, 25% are associate professors and 11.2% are lecturers.

Table 1
USM—Descriptive statistics

		Minimum	Maximum
Age (*n* = 365)	Mean = 43.2 years	24 years	65 years
		Frequency	Percent
Gender (*n* = 370)	Male	201	54.3
	Female	169	45.9
Stream (*n* = 376)	Arts	140	37.2
	Science	236	62.8
Rank (*n* = 373)	Professor	26	6.9
	Associate Professor	94	25.0
	Senior Lecturer	211	56.1
	Lecturer	42	11.2
Work experience (*n* = 373)	Less than 5 years	137	36.4
	6–10 years	98	26.1
	11–15 years	42	11.2
	more than 16 years	96	25.5

Table 2
APU—Descriptive statistics

		Frequency	Percent (%)
Gender (*n* = 82)	Male	43	52.4
	Female	39	47.6
Stream (*n* = 79)	Arts	42	53.2
	Science	37	46.8
		Minimum	Maximum
Age (*n* = 81)	Mean = 44.7 years	27 years	64 years
KPI	Mean = 171.06	0.81	657
		Frequency	Percent (%)
Campus (*n* = 82)	Andalas	42	51.2
	Padang	40	48.8
Work experience (*n* = 82)	Less than 5 years	6	7.3
	6–10 years	16	19.5
	11–15 years	18	22.0
	more than 16 years	42	51.2

Table 2 shows the descriptive statistics for APU. Forty-two respondents are from Universitas Andalas, and 40 are from Padang State University. The mean age is 44.7 years, the minimum age is 27 years, and the maximum age is 64 years. Approximately 52% are male, and 53.2% are from the Arts Stream and 46.8% are from the Science Stream. The majority of the staff in both the universities have been working at the university for more than 16 years, 22% have been working there between 11–15 years, 19.5% between 6–10 years and only 7.3% have been working there less than 5 years. Approximately 73% of the academic staff have been working for more than 10 years in their universities, whereas relatively new staff consists of only 7.3%.

Factor Analysis

Data collected from USM and APU were subjected to separate factor analysis, but the same questionnaire was used in both studies. Organisational commitment was measured based on a modified version of an instrument previously developed and validated by Rego and Cunha (2008). It includes 11 items with five-Likert scales instead of 14 seven-point scales given in the original instrument, measuring effective, normative and continuance commitment. The social capital dimension was measured by 27-item five-Likert scales based on various sources that include Wu, Chang and Chen (2008) and Lundvall (2007) and that emphasise major indicators such as trust, social network, sense of belonging, friendship, cooperation and team orientation. The 11 commitment items and 27 social capital items were subjected to principal component analysis (PCA) after the suitability of data for factor analysis was tested. The correlation matrix amongst the items showed most of the coefficients are 0.3 and above. The Kaiser-Meyer-Oklin values were 0.898 (USM) and 0.731 (APU) for commitment components and 0.933 (USM) and 0.694 (APU) for social capital components where all the values exceed the recommended level of 0.6. Barlett's test was also significant for all components, which supports the factorability of the correlation matrix. PCA indicated three components for both models with eigenvalues more than 1. Varimax rotation was used to facilitate interpretation of factor loadings and coefficients were used to obtain factor scores for the selected factors.

For both USM (Tables 3 and 4) and the APU (Tables 5 and 6) models, three components for social capital—collective action and shared values, relational trust and cooperation, and cohesive bonds and connectivity—were identified based on the items' groupings after removing the other items with loadings less than 0.4 and also those with cross loadings. The items in each component are similar but not exactly the same for USM and APU as given in Tables 4 and 6, respectively. Only six items were removed from the USM model compared to 12 items from the APU model.

Table 3
USM—Commitments (Factor loadings and communalities)

	Component			Communalities
	Affective	Normative	Continuance	
I am proud to tell others that I am part of this school.	.860			.749
I am proud to tell others that I am part of this university.	.830			.706
I have a strong affection for this school.	.865			.767
I have a strong affection for this university.	.796			.679
I feel like "part of the family" at my school.	.758			.666
I feel like "part of the family" at my university.	.666			.567
Even if it were to my advantage, it would not be right to leave my university now.		.846		.768
I would not leave my university right now because I have a sense of obligation to the people in it.		.865		.797
If I got another offer for a better job elsewhere, I would not feel it was right to leave my university.		.850		.767
I remain in this university because I feel that it would not be easy to enter into another organisation.			.839	.719
I remain in this university because leaving it would imply great personal sacrifices.			.842	.728

Table 4
USM—Social capital (Factor loadings and communalities)

	Component			Communalities
	Collective action & shared values	Cohesive bonds & connectivity	Relational trust & cooperation	
My colleagues clearly understand the goals and visions of our university.	.800			.714
My colleagues and I share the same goals and missions of our university.	.782			.695
My colleagues and I are enthusiastic about pursuing the collective goals and missions of the university.	.721			.661
My colleagues willingly participate in all relevant aspects of teamwork.	.572			.604
My colleagues display a high degree of pride in their duties and the team.	.638			.619
I trust the words of the leader.	.620			.496
Our leader is sensitive to our opinions and emotions.	.551			.405
I always keep promises.		.598		.451
I willingly participate in all relevant aspects of teamwork.		.669		.607
I display a high degree of pride in my duties and teamwork.		.733		.652
I assign high priority to team goals.		.638		.594

(*continue on next page*)

Table 4 (*continued*)

	Component			Communalities
	Collective action & shared values	Cohesive bonds & connectivity	Relational trust & cooperation	
I have a positive working relationship with others.		.695		.604
I approach my job with professionalism and dedication.		.719		.528
I share material, resources and information in networking.		.542		.502
My colleagues have a positive working relationship with each other.			.671	.648
My colleagues approach their jobs with professionalism and dedication.			.702	.648
My colleagues are always willing to cooperate.			.678	.668
My colleagues trust each other's competence and knowledge in solving problems.			.704	.670
I have confidence in discussing problems (personal) with my colleagues.			.616	.408
I socialise outside the university with my colleagues.			.510	.382

Table 5
APU—Commitments (Factor loadings and communalities)

	Component			Communalities
	Affective	Normative	Continuance	
I am proud to tell others that I am part of this school.	.870			.764
I am proud to tell others that I am part of this university.	.875			.792
I have a strong affection for this school.	.830			.734
I have a strong affection for this university.	.780			.689
I feel like "part of the family" at my school.	.799			.710
I feel like "part of the family" at my university.		.853		.778
Even if it were to my advantage, it would not be right to leave my university now.		.839		.754
I would not leave my university right now because I have a sense of obligation to the people in it.		.841		.733
If I got another offer for a better job elsewhere, I would not feel it was right to leave my university.			.854	.737
I remain in this university because I feel that it would not be easy to enter into another organisation.			.775	.670

Table 6
APU—Social capital (Factor loadings and communalities)

	Component			Communalities
	Collective action & shared values	Cohesive bonds & connectivity	Relational trust & cooperation	
My colleagues clearly understand the goals and visions in our university.	.649			0.507
My colleagues and I are enthusiastic about pursuing the collective goals and missions of the university.	.757			0.706
My relationships with my colleagues are productive.	.658			0.578
I socialise outside the university with my colleagues.	.579			0.434
My colleagues and I share the same goals and missions of our university.	.808			0.674
I often exchange information in an informal way with my colleagues.		.637		0.422
My colleagues assign high priority to team goals.		.597		.447
I have confident in discussing problems (personal) with my colleagues.		.704		0.534
I approach my job with professionalism and dedication.		.518		0.406

(*continue on next page*)

Table 6 (*continued*)

	Component			Communalities
	Collective action & shared values	Cohesive bonds & connectivity	Relational trust & cooperation	
My colleagues share material, resources and information in networking.		.611		0.433
Our leader is sensitive to our opinions and emotions.		.643		0.523
My colleagues are always willing to cooperate.			.602	0.469
I have a positive working relationship with others.			.476	0.509
My colleagues have a positive working relationship with each other.			.750	0.567
I have confidence in discussing problems (work) with my colleagues.			.652	0.498

Three commitment components, affective, normative and continuance, were also identified using the same method and all the items were maintained. Item communalities are considered "high" if they are all 0.8 or greater but these values are hard to come by in real data. In social science studies moderate communalities values of 0.40 and 0.70 are common and acceptable. A communality value of less than 0.40 may suggest that the item does not relate to the other items in the same factor. Communalities for both commitment and social capital components in both models are within the range of 0.44 and 0.80 (except for the last item in social capital components with communalities at 0.382), which indicates that all the items in each factor are related.

Multiple Regression Analysis

Three separate models based on the score values for commitments components—affective, normative and continuance commitments—were analysed to see the influence of social capital on commitment. Rank and work experience were

treated as categorical data. In the rank analysis, professors (Prof.) and associate professors (Assoc. Prof.) were compared with the controlled item senior lecturers/lecturers when we wanted to see the extent of their influence on the dependent variable. For work experience, those who have worked more than 16 years, between 11–15 years, and between 6–10 years were compared with those who have served less than 5 years. VIF and tolerance levels for all the models in Tables 1 and 2 also fall within the range that indicates no multicollinearity problem.

DISCUSSION AND CONCLUSION

Tables 7 and 8 present the results of the regression analyses showing the extent of the three organisational commitments that can be explained by the social capital dimensions for USM and APU, respectively. Amongst the USM staff, collective action and shared values, relational trust and cooperation, and cohesive bonds and connectivity through participation tend to have strong positive impacts on affective and normative commitments. However, for APU, only one component of social capital, cohesive bonds and connectivity, contributed to affective commitment. Collective action and shared values as well as cohesive bonds and connectivity were shown to have contributed to higher normative commitment. Relational trust and cooperation, which are important indicators of social capital, did not seem to have any impact on all the three organisational commitments. The extent to which these specific findings suggest the critical importance of cognition and structural connections over the specificity of relational interactions is another finding that needs investigation.

The development of affective commitment is reinforced and expressed through social interactions, social recognition and day to day functioning of social capital in the workplace. Normative commitment develops and is inculcated when the staff internalise the university's norms and values through day to day socialisation and engagement. Through socialisation in the workplace, staff receive certain benefits, some tangible and others intangible, that incline them to feel the need to reciprocate and internalise the values and norms of the organisation (Rego & Cunha, 2008).

There is a strong body of literature linking organisational commitment with overall and long-term job performance. Negative views about the workplace, negative views about the social interactions at work and a failure of workplaces to generate affective and normative commitments can lead to higher rates of turnover, lack of real engagement with the goals of an organisation and a failure of buy in by staff to the goals of the organisation. In short, the problems of commitment suggest problems with the long-term performance of organisations.

Continuance commitment emphasised staff recognising the costs of staying with or leaving the university and basing their commitment solely on this calculation (Rego & Cunha, 2008).

Table 7
USM—How social capital explains organisational commitment

Predictive variables	Criterion variables		
	Affective commitment	Normative commitment	Continuance commitment
Collective action and shared values	0.353 (0.000***)	0.225 (0.000***)	0.076 (0.163)
Relational trust and cooperation	0.198 (0.000***)	0.318 (0.000***)	0.055 (0.313)
Cohesive bond and connectivity	0.461 (0.000***)	0.130 (0.004**)	–0.153 (0.005**)
Stream	–0.005 (0.907)	0.008 (0.885)	–0.005 (0.936)
Age	0.105 (0.101)	0.079 (0.283)	–0.040 (0.618)
Gender	0.032 (0.477)	–0.065 (0.216)	0.096 (0.093)
Rank: Professor	0.044 (0.397)	0.118 (0.049*)	–0.017 (0.799)
Associate Professor	0.094 (0.081)	0.109 (0.078)	0.039 (0.566)
Work experience			
6–10 years	0.016 (0.752)	–0.030 (0.616)	–0.018 (0.778)
11–15 years	–0.065 (0.198)	–0.053 (0.364)	–0.065 (0.304)
> 16 years	–0.020 (0.790)	–0.183 (0.036*)	0.075 (0.428)
R^2	0.396	0.203	0.050
Adjusted R^2	0.375	0.176	0.019
F	19.694	7.656	1.591
P-value	0.000***	0.000***	0.100
Tolerance	0.320–0.971	0.320–0.971	0.320–0.971
VIF	1.030–3.128	1.030–3.128	1.030–3.128

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

Table 8
APU—How social capital explains organisational commitment

Predictive variables	Criterion variables		
	Affective commitment	Normative commitment	Continuance commitment
Collective action and shared values	0.181 (0.123)	0.342 (0.006**)	–0.226 (0.065)
Relational trust and cooperation	–0.095 (0.436)	0.157 (0.219)	0.115 (0.127)
Cohesive bond and connectivity	0.284 (0.030*)	0.315 (0.021*)	0.205 (0.364)
Campus	0.475 (0.055*)	0.108 (0.670)	–0.111 (0.660)
Age	0.010 (0.617)	0.005 (0.821)	–0.004 (0.852)
Gender	–0.247 (0.336)	0.376 (0.160)	0.295 (0.269)
Work experience:			
6–10 years	–0.242 (0.625)	–0.504 (0.328)	0.395 (0.389)
11–15 years	–0.305 (0.549)	–0.490 (0.354)	0.455 (0.403)
> 16 years	–0.556 (0.355)	–0.922 (0.141)	0.521 (0.269)
R^2	0.228	0.219	0.137
Adjusted R^2	0.112	0.102	0.007
F	1.971	1.875	1.057
P-value	0.059*	0.073	0.408
Tolerance	0.146–0.966	0.146–0.966	0.146–0.966
VIF	1.035–6.845	1.035–6.845	1.035–6.845

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

As shown in Table 7, continuance commitment in the USM model is negatively related to cohesive bonds and connectivity but not related to any other predictive variables. Staff who feel included and express strong social cohesion seemed to have lower continuance commitment. The APU model in Table 5 indicates that higher collective action and shared values seemed to reduce continuance commitment. Both models show the significance of negative relationships between social cohesion and shared values with continuance commitment in the organisations. The outcomes of our study reinforce findings in the literature on organisational commitment and its connection to social capital and organisational values (Morrow & McEvoy, 1993; Meyer & Allen, 1997; Meyer, Becker, & Vandenberghe 2004; Hsu et al., 2011; Nambudiri, 2012; Alikhani et al., 2014). Collective engagement and cooperation between members of an organisation and the sharing of commonly held values by members of an organisation reduce the importance of calculative considerations for organisational members. The

reduction of continuance commitment shown in both the models as a result of shared collective activity and shared values is also a core foundation for a positive and shared sense of professional responsibility. Such characteristics point to the existence of a positive professional learning community that can form the basis of strong social capability (Bogler & Somech, 2004). These findings suggest important possibilities for further research and the importance of social capital to commitment in organisations, especially in non-Western contexts (Suliman & Iles, 1999).

In addition to social capital components, other factors such as age, gender, work experience and rank do not seem to have much effect on organisational commitment. For the USM model, professors seemed to have significantly higher normative commitment compared to senior lecturer/lecturers. However, based on the period of work experience, those who have worked more than 16 years in the institution have lower normative commitment compared to their juniors who have worked less than six years. This is an interesting and possibly counterintuitive finding that needs to be researched in more detail before any conclusions are warranted. For the APU model, Padang State University staffs are found to have higher normative commitment compared to their counterparts at Universitas Andalas. Whether this shows a genuine difference based on history, size of the institution, or homogeneity/heterogeneity, fragmentation and compartmentalisation of the organisational structure or is just the result of sample size is also in need of further elaboration.

The influence of culturally-based aspects of social capital in both Malaysia and Sumatra is also something that needs far more elaboration. Because performance culture is derived from neo-liberal theory, its roots in liberal notions of individual achievement may be in tension with collectivist ideas of propriety and manners found in more collectivist cultures. Fundamental or deep determinants (dynamic capabilities) of performance growth over a long time depend upon social capital and the depth of affective and normative commitment by staff to an organisation. Long-term dynamic organisational learning culture and positive social capital develop forms of affective and normative commitment. Strong moral commitment and the moral identity of academics are not reducible to self-regarding motivation or utility maximisation. Rather, commitment and positive buy-in by academics is rooted in social capital. The result of positive social capital and increased commitment by staff is ultimately a dynamic long-term and fundamental performance environment. The significance of social capital and commitment to the long-term dynamic and fundamental performance culture of all three institutions studied points to the continued significance and importance of studying the social and cultural antecedents of performance and the contribution that social capital plays in generating such performance.

Overall, our study indicates the significance and importance of social capital, shared values and norms to commitment in all the institutions studied. It points to the general importance of socially contextualising discussions about performance culture. The extent of this comparative study is constrained by limited sample size, in particular, for the APU model. Extended research at the universities on institutional differences with a better representative sample size from Universitas Andalas and Padang State University would be able to further strengthen this study and gain more accurate results. Further supplementary research that could provide a more in-depth study using a qualitative approach to enhance and reinforce the findings is recommended.

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REFERENCES

Abramovitz, M. (1986). Catching up, forging ahead, and falling behind. *The Journal of Economic History, 46*(2), 385–404.

Alikhani, A., Fadavi, A., & Mohseninia, S. (2014). An empirical investigation on relationship between social capital and organisational commitment. *Management Science Letters, 4*, 373–376.

Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organisation. *Journal of Occupational Psychology, 63*, 1–18.

Allen, N. J., & Meyer, J. P. (2000). Construct validation in organisational behavior research: The case of organisational commitment. In R. D. Goffin, & E. Helmes (Eds.), *Problems and solutions in human assessment: Honoring Douglas N. Jackson at seventy* (pp. 285–314). Norwell, MA: Kluwer.

Bakiev, E. (2013). The influence of interpersonal trust and organisational commitment on perceived organisational performance. *Journal of Applied Economics and Business Research, 3*(3), 166–180.

Bateman, T., & Strasser, S. (1984). A longitudinal analysis of the antecedents of organisational commitment. *Academy of Management Journal, 21*, 95–112.

Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organisational commitment, professional commitment and organisational citizenship behavior in schools. *Teaching and Teacher Education, 20*, 277–289.

Bolino, M. C., Turnley, W. H., & Bloodgood, J. M. (2002). Citizenship behavior and the creation of social capital in organisations. *The Academy of Management Review, 27*(4), 505–522.

Burt, R. S. (1997). The contingent value of social capital. *Administrative Science Quarterly*, *42*, 339–365.

Burt, R. S. (2000). The network structure of social capital. *Research in Organisational Behaviour, 22*, 345–423.

Coff, R. W., & Blyler, M. (2003). Dynamic capabilities, social capital, and rent appropriation: Ties that split pies. *Strategic Management Journal, 24*(7), 677–686.

Cohen, D., & Prusak, L. (2001). *In good company: How social capital makes organisations work?* Boston: Harvard Business School Press.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(Suppl: Organisations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure), S95–S120.

DiBella, A. J., & Nevis E. C. (1998). *How organisations learn: An integrated strategy for building learning capability* (1st ed.). San Francisco, CA: Jossey-Bass.

Fukuyama, F. (1997). Social capital and the modern capitalist economy: Creating a high trust workplace. *Stern Business Magazine, 4*(1), 56–71.

Gonzalez-Brambila, C. N., Veloso, F. M., & Krackhardt, D. (2008). Social capital and the creation of knowledge. *2008 Industry Studies Conference Paper.* http://ssrn.com/abstract=1120977 or http://dx.doi.org/10.2139/ssrn.1120977

Holtom, B., & O'Neill, B. (2004). Job embeddedness: A theoretical foundation for developing a comprehensive nurse retention plan. *The Journal of Nursing Administration, 34*(5), 216–227.

Hsu C. P., Chang, C. W., Huang, H. C., & Chiang, C. Y. (2011). The relationships among social capital, organisational commitment and customer-oriented pro-social behaviour of hospital nurses. *Journal of Clinical Nursing, 20*, 1383–1392.

Lee, T. W., Mitchell,T. R., Sablynski, C. J., Burton, J. P., & Holtom, B. C. (2004). The effects of job embeddedness on organisational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal, 47*(5), 711–722.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader member exchange: An empirical assessment through scale development. *Journal of Management*, *24*, 43–73.

Lin, N. (1999). Social networks and status attainment. *Annual Review of Sociology, 25*, 467–487.

Lundvall, B-Å. (2007). *Innovation system research and policy: Where it came from and where it might go.* CAS Seminar, December. Oslo: Centre for Advanced Study at the Norwegian Academy of Science and Letters.

Meyer, J. P., & Allen, N. (1984). Testing the "side-bet theory" of organisational commitment: Some methodological considerations. *Journal of Applied Psychology, 69*, 372–378.

Meyer, J. P., & Allen, N. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage Publications.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology, 89*(6), 991–1007.

Moran, P. (2005). Structural vs. relational embeddedness: Social capital and managerial performance. *Strategic Management Journal, 26*, 1129–1151.

Morrow, P. C., & McEvoy, J. C. (1993). Introduction: Understanding and managing loyalty in a multi-commitment world. *Journal of Business Research, 26*, 1–2.

Mulki, J. P., Jaramillo, F., & Locander, W. B. (2006). Effects of ethical climate and supervisory trust on salesperson' job attitudes and intentions to quit. *Journal of Personal Selling and Sales Management*, *26*(1), 19–26.

Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital and organisational advantage. *Academy of Management Review, 23*(2), 242–266.

Nambudiri, R. (2012). Propensity to trust and organisational commitment: A study in the Indian pharmaceutical sector. *The International Journal of Human Resource Management, 23*(5), 977–986.

O'Reilly, C., & Chatman, J. (1986). Organisational commitment and psychological attachment: The effects of compliance, identification and internalization on prosocial behavior. *Journal of Applied Psychology, 71*(3), 492–499.

Putnam, R. (2007). E Pluribus Unum: Diversity and community in the twenty-first century; The 2006 Johan Skytte Prize lecture. *Scandinavian Political Studies, 30*(2), 137–174.

Rego, A., & Cunha, M. P. (2008). Workplace spirituality and organisational commitment: an empirical study. *Journal of Organisational Change Management, 21*(1), 53–75.

Riggio, R. E. (2009). *Introduction to industrial/organisational psychology*. London: Pearson.

Spector, P. (2008). *Industrial and organisational behaviour* (5th ed.). New Jersey: John Wiley & Sons.

Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing, 29*, 152–173.

Suliman, A. M., & Iles, P. A. (1999). The multi-dimensional nature of organisational commitment in a non-Western context. *Journal of Management Development, 19*(1), 71–82.

Tsai, W., & Ghosal, S. (1998). Social capital and value creation: The role of intrafirm networks. *The Academy of Management Journal, 41*(4), 464–476.

Watson, G. W., & Papamarcos, S. D. (2002). Social capital and organisational commitment. *Journal of Business and Psychology, 16*(4), 537–552.

Westlund, H., & Adam, F. (2010). Social capital and economic performance: A meta-analysis of 65 studies. *European Planning Studies, 18*(6), 893–919.

Wu, W., Chang, M., & Chen, C. (2008). Promoting innovation through the accumulation of intellectual capital, social capital, and entrepreneurial orientation. *R&D Management, 38*, 265–277.