Leveraged *Guanxi* in Employment Acquisition: Scale Development and Validation

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Abstract

The Chinese organisational sphere is impacted upon by a number of relatively distinct contextual variables; prevalent amongst these variables, is the Chinese manifestation of social network ties, *guanxi*. Thus, in order to further advance our understanding of this influential Chinese phenomenon, the development of tailored measures of *guanxi* is required. Therefore, this paper develops and performs the validation of a new scale designed to measure a particular manifestation of *guanxi*. The new scale's items were generated and validated over four studies, consisting of focus group discussions, free-listing, pile-sorting and scenario activities (n=126), followed by a pilot test (n = 227) and a test distribution of the scale (n=506).The studies generated items representing both the categorical and dynamic dimensions of *guanxi*, as well the dimension of influence. The studies cumulatively evidence the scale's sound psychometric properties, and provide researchers with a previously unavailable scale, contributing towards enhancing the consistency of *guanxi's* measurement across future studies, and providing a deeper understanding of the phenomenon of *guanxi*.

Keywords: *guanxi*, scale development, scale validation, China

1. Introduction

Interpersonal relationships have been found to play a key role economic interactions both in Western and Chinese contexts (Burt, 1992; Luo, 2000; Xin & Pearce, 1996), a role which has been found to be amplified within the Chinese context (Chen & Chen, 2004; Luo et al., 2012; Chen et al., 2013). This increased influence can be attributed to the central role that *guanxi* plays in all facets of Chinese life. The term "guanxi" has been translated as "connections", "relations", or "relationships". However, such translations fail to capture the rich and dynamic phenomena which is *guanxi* (Chen et al., 2004). A phenomenon which widely acknowledge to impact on management outcomes in China and throughout the Asia-pacific region (Chou et al., 2014; Ahmed et al., 2014), hence *guanxi* been included as a focal construct in at least 180 business related studies to date (Chen et al., 2013)

Guanxi has been shown to be a distinctive from comparative constructs in other national contexts, (Smith et al., 2010). One particular point of divergence, is how *guanxi* influences labour market outcomes relative social networks in western contexts, where a wide spread of weak ties, has been shown to be more useful in gaining employment opportunities than strong ties (Bridges & Villemez, 1986; Montgomery, 1992; Granovetter, 1973). However, the opposite relationship has been found in the Chinese labour market, where strong ties such as with immediate family members, associated with strong *guanxi*, are known to be more predictive of advantageous employment outcomes (Bian & Ang, 1997; Bian, 1994). Thus, strong *guanxi* ties and networks act as social resources for job seekers (Hwang, 1987; Lin, 1982) which can be leveraged to obtain employment and career success (Bian, 1997; Xiao & Tsui, 2007).

The reason for the greater influence of strong ties in the Chinese labour market context is attributed to the pivotal role of *guanxi* in Chinese society, coupled with the legacy of the centrally-controlled labour market of the planned economy era (Bian & Huang, 2009; Walder, 1986). In this era, strong personal ties with an individual who could exert influence on the employer were required in order to receive beneficial from labour market outcomes. Consequently, information regarding employment opportunities received through weak ties was irrelevant for job seekers in this era (Bian, 1994; Bian, 1997). Post-labour market de-regulation, strong ties or strong *guanxi* were predicted to play a declining role in shaping employment outcomes (Guthrie, 1998; Guthrie,

2002). However, research points to the sustained or even increasing impact of strong *guanxi* relationships in determining employment outcomes in China (Bian & Huang, 2009).

Hence, key organisational outcomes can be presumed to be influenced by the strength of *guanxi* relationships with an organisation, which pre-date the commencement of the employment relationship. However although there have been calls from management scholars to development of new scales that are contextualised for the Chinese organisational environment (Tsui, 2006; Farh et al., 2006), to date the measurement of *guanxi* strength, particularly in at a pre-employment stage remains it its formative stages.

1.1 The Measurement of Guanxi

Guanxi to date it does not possess a widely applied means of measurement (Wong et al., 2010; Chen & Chen, 2004; Yang, 2001b; Latham & Gordon, 2009). The lack of a widely-accepted measure of *guanxi* can largely be attributed to the fact that it is a multidimensional, rich, complex, and dynamic construct (Yang, 2001a; Yang, 2001b; Chen et al., 2013). The multifaceted nature of *guanxi* is best demonstrated in the two differing broad conceptual approaches to the empirical investigation of *guanxi*, Chen and Chen (2004) define these approaches as 'categorical' or 'dynamic', samples of these approaches are provided in table 1. The categorical approach focuses on categories or particularistic relationships, such as family, when conceptualizing and measuring *guanxi* (Farh et al., 1998; Law et al., 2000b), whereas the dynamic approach places more emphasis on the general quality of *guanxi* relationships, revealed in their behavioral consequences, such as deferential behaviours, and/or affective dimensions such as trust which indicate the strength of *guanxi* present (Chen et al., 2009; Chen & Peng, 2008; Law et al., 2000b).

Studies which take a categorical approach to *guanxi* measurement primarily utilize particularistic ties, such as family, classmates and acquaintances, as a means to gauge the presence and/or type of *guanxi* present (Tsang, 1998; Yeung & Tung, 1996; Tsui & Farh, 1997; Farh et al., 1998).Therefore, in studies adopting a categorical approach, the strength of *guanxi* is often inferred from the type of particularistic relationship with the *guanxi*-helper/person, and their proximity to the focal individual (Hwang, 1987; Zhang & Zhang, 2006; Yang, 1993). The measurement of *guanx*i by relationship category is complicated by the fact that, although a particularistic relationship is a necessary precondition for *guanxi*, it does not guarantee its outcomes (Tsang, 1998). Hence, gauging *guanxi* purely by category of relationship provides only a partial measurement of the degree of *guanxi* present in a particular relationship (Kiong & Kee, 1998; Hwang, 1987). Therefore, other researchers have elected to focus on the dynamic dimension of *guanxi*, measured by its behavioral and affective manifestations (Chen & Peng, 2008; Cheung et al., 2008; Wong et al., 2003b). It should be recognized that capturing the interactions between the categorical and dynamic dimensions of *guanxi* in a single measure is complex, as highlighted by Latham and Gordon (2009) as in their study categorical and dynamic measures were found to produce divergent and even conflicting results.

In addition to the multidimensional nature of *guanxi*, the complexity of its measurement is further compounded by its sensitivity to context. This is illustrated by the fact that linguistically it is difficult to provide a concise definition of *guanxi*, as it is used as a loose term with multiple context-dependent meanings (Tsui & Farh, 1997). The highly context-sensitive nature of *guanxi* can partially account for the lack of continuity in its measurement across studies as presented in table.1, of particular note to this study is that a majority of previous measures of *guanxi*, evaluate *guanxi* strength via post-employment behaviours (e.g., Chen & Peng, 2008; Cheung et al., 2008; Wong et al., 2003b). Hence such measures are unsuitable for measuring *guanxi* which pre-dates the employment relationship. Thus, this paper, building on previous work, both categorical and dynamic, whilst also incorporating the context-dependent nature of *guanxi*, will develop and validate a new scale to measure *guanxi* which predates the employment relationship, specifically that of newly graduated job seekers in the Chinese labour market.

Table 1. Previous guanxi measures

Source	Measurement Approach	Sample Items
Bian & Ang (1997)	Intimacy and particularistic ties	How well did you know the helper?
		Connection to the helper:
		kin to kin; kin to non-kin; non-kin to kin; non-kin to non-kin
Farh, Tsui, Xin & Cheng (1998)	Particularistic ties	Respondents were asked to indicate the presence of particularistic ties
		Classmate, relative; same family name; same province; former colleague; former teacher/student, former supervisor/subordinate; former neighbour
Law, Wong, Wang, & Wang (2000)	Affective attachment	"I stand by my boss when there is any dispute."
		"I give him/her gifts during festivals."
Chen, Friedman, Yu, & Sun (2011), adapted from Lin (2002)	Differential behaviours	"Under the conditions of similar qualifications, my supervisor would assign me the important and easy-to-be-achieved job assignments."
		"My supervisor allocates me more bonuses than others."
Wong, Tinsley, Law, & Mobley (2003a)	Differential behaviours	"I would lend him/her money"
		"I would miss a work meeting in order to visit him/her in the hospital."
Chen, Chen, & Xin (2004)	Differential behaviours and prevalence of guanxi networks.	Task allocations are often decided based on guanxi.
		How likely it is that guanxi networks exist in your company?
Chang & Lii (2005)	Perceived network insider status	"I would invite AAA's managers for family activities on holidays."
		"I would invite AAA's managers to go abroad to participate in trade shows."
Cheung & Gui (2006)	Intimacy and mutual familiarity	Your closeness to the matchmaker.
		The matchmaker's familiarity with you.
Chen & Peng (2008)	Instrumental and expressive dimensions	"We can fully communicate about our feelings at work."
		"We trust each other."
	Behavioural incidents positive and negative	The colleague kindly reminded you when he/she found the mistakes you made in your work.
		The colleague did not return the money you loaned him.
Cheung, Wu, Chan & Wong (2008), adapted from Liden, Wayne, & Stilwell (1993)	Affective attachment	"My supervisor understands my problems and needs."
		"My supervisor invites me to his/her home for lunch/dinner."
Zhang, Soh, & Wong (2009) Adapted from Burt & Knez's (1995) and Bian's (1997)	Duration, affective attachment and frequency	How many years have you/they known each other prior to this resource acquisition?
		To what extent do you agree that you then kept a close relationship with each other prior this resource acquisition?
		To what extent do you agree that you/they met each other every week prior to this resource acquisition?
Chen et al.,(2009)	Affective attachment	"After the office hour, I have social activities together with my supervisor such as having dinner together or having entertainment together which go beyond work duties."
		"I am familiar with the family members of my supervisor and have personal contact with them"
Wong, Wong & Wong (2010)	Frequency, mutual interest, and benefits	"I have frequent interactions with my immediate supervisor after work"
		"I am quite willing to help my immediate supervisor after work (e.g., moving and decorating house)."

2. Scale Development and Validation Studies

Developing and establishing the validity of a new scale is neither a onetime task, nor one which can be achieved using a singular approach (Schwab, 1980). Thus, the development and validation of the scale was undertaken over four studies, using a range of methodologies, as detailed in the following sections.

2.1 Study One: Categorical Item Generation

2.1.1 Sample and Procedures

Participants were recruited from business school graduates, in Study One, five separate Focus groups were conducted; Group One, (n=10), Group Two, (n=15), Group Three (n=15), Group Four (n=9), and Group Five (n=9), the mean age was 22.28 years (SD =.33), and 63% of the participants were female. Focus groups were used to generate the categorical items specifically by using a free-listing technique, which has often been used in anthropological studies to generate lists of terms associated with the domain of a specified construct (Walker & Hennig, 2004; Brewer et al., 2002), also matching and basket sorting-type procedures were also used for categorizing the relationships, given the utility of these procedures in developing and accessing the content validity of scale items (Schriesheim et al., 1993; MacKenzie et al., 1991). The specific sorting technique used in the current study was pile-sorting, which is a method of domain analysis allowing the researcher to investigate how items relate to each other in the minds of research participants (Jenike et al., 2011; Bernard, 1994).

2.1.2 Study One: Results

From Group One's individual free-listing activity, 23 ways of categorizing or distinguishing *guanxi* relationships types were generated. In the subsequent group discussions which followed, overlapping terms were collapsed into single categories where possible. Here the relationship types of business partnership and customer-supplier were collapsed into "mutual-benefit", parents, grandparents and blood-brothers/sisters into "immediate family", and lastly school-mates, same home-town, and class-mates into "friend". The relationship type "good friend" was deleted as participants agreed; its common colloquial usage gave it an ambiguous meaning relative to the context of the study. A final list of eleven relationships categories was produced, which are presented in Table 2.

The results of the unconstrained individual pile-sorts of relationship categories were analyzed using cluster analysis, to derive sets of linkages between items (Johnson, 1967), identifying eight recurring criteria for classifying *guanxi* relationship types: (a) strong/close, moderate, weak/distant, (b) affection based or mutual benefit based (c) family, friendship and acquaintance/stranger. The constrained pile-sorts, sorted by *guanxi* strength, reveal that 100% of participants classified immediate family as representing strong/close *guanxi,* whilst 100% of participants classified those relationships which were neither friend nor family as weak/distant *guanxi.* For other relationships types, less definitive results were achieved. For example, 63% of participants placed non-immediate family members in the strong/close *guanxi* category; however, 37% placed them in the moderate *guanxi* strength category. In subsequent discussions, participants indicated that when allocating a *guanxi* strength, with regard to eight of the eleven relationship types, their choice was dependent on a number of contextual variables. Consistent with the results of the first constrained pile-sort, the second constrained pile-sort revealed only one pair of relationship types as being definitively bi-polar, and thus suitable for anchors on a seven-point interval scale of '1' (Acquaintance) to '7' (Immediate family).

In Stage One of the de-brief, participants in Group Four and Group Five concluded that providing responses relative to five intervening points between the anchors of '1' (Acquaintance) and '7' (Immediate family) was highly arbitrary. Hence, participants concurred that inter-rater reliability would likely be weak for this type of interval scale item indicating *guanxi* strength in categorical type relationships. In addition, corroborating the findings of the preceding focus groups, participants also identified that interpretation of a number of the relationship types relative to *guanxi* strength was subjective, due to the highly contextualized personal nature of *guanxi* relationships, with the exception of immediate family relationships.

In Stage Two of the debriefing process, participants produced a number of hypothetical contextualized scenarios, introducing additional variables which would impact on the categories of relationship used to obtain an internship position at the host organization. Sample scenarios generated by participants are provided below:

"My father is a customs official; an acquaintance of my father's is a manager at this foreign trade firm".

"My old friend from my home-town is an employee at this company."

Table 2. Study-one: Free-listing and constrained pile-sorting results

Relationship Category	Weak *Guanxi*	Moderate *Guanxi*	Strong *Guanxi*
Immediate Family	---	---	100%
Non-Immediate Family	---	37%	63%
Distant Family	57%	43%	---
Best Friend	---	83%	17%
Friend	63%	37%	---
Friend of friend	78%	22%	---
Friend of Immediate Family	13%	78%	---
Friend of Family	64%	36%	---
Mutual Benefit	66%	34%	---
Acquaintance	100%	---	---
Agent	100%	---	---

Note: The English translations of relationship types are approximations, as Chinese vocabulary provides finer-grained distinctions between relationship types that are not available in English. Clarifications: Immediate Family (i.e. parents) Non-Immediate Family (i.e. 1st uncle), Distant Family (i.e. 2nd cousin).

The focus group discussion associated with such scenarios revealed that although in categorical terms the first scenario represents weaker *guanxi* according to Yang's (1993) classification its impact with regard to obtaining an internship position would be stronger even though the relationship was more distant in categorical terms. This highlights the problematic nature of using a stand-alone relationship category to measure *guanxi's* impact on outcomes, additionally. This finding also introduces the important dimension of the influence/power associated *guanxi*-helper relative to the employing organization, which shape the employment outcomes of a particular *guanxi* relationship.

2.2 Study Two: Dynamic Item Generation

2.2.1 Sample and Procedures

Table 3. Pilot pre-employment guanxi scale

Item
GC-1. What was the type of relationship with the *guanxi*-person who helped you obtain this position?
Response Format: Immediate Family (S), Family (S), Distant Family (W), Best friend (M), Friend (W), Friend of Friend (W), Friend of immediate family (M), friend of family (W), mutual benefit, acquaintance (W), agent(W)
GD-1. How important was *guanxi* in gaining the position?
Response Format: '1' (not important at all) to '7' (extremely important)
GD-2. How well did you know the *guanxi*-person prior to the internship?
Response Format: '1' (not at all) to '7' (very well)
GD-3. There was a strong relationship with the *guanxi* person.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GD-4. This *guanxi* person exerted substantial effort to assist me in obtaining my internship position.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GD-5. The *guanxi* person went significantly out of their way to assist me in obtaining this internship position.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GD-6. There was a high level of trust with the *guanxi* person.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GD-7. There was a close relationship between you and the *guanxi* person.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GI-1. The level of influence of the *guanxi* person's position was significant, factor in me obtaining this position.
Response Format: '1' (strongly disagree) to '7' (strongly agree)
GI-2. This *guanxi* person has significant influence relative to the internship organisation.
Response Format: '1' (strongly disagree) to '7' (strongly agree)

Note: (W) = weak *guanxi*, (M)=moderate *guanxi,* (S)=strong *guanxi*

Study Two included three focus groups, new participants were recruited from the same sampling frame as Study One, although they who had not participated in the preceding focus groups. The sample size of the focus groups was: Group Six (n=20), Group Seven (n=20), and Group Eight (n=16). The participants' mean age was 22.24 years (sd = .32), and 58 % of the participants were female. Study two applied scenario method was used in the focus groups for the generation of the items associated with the dynamic dimensions of *guanxi*, similar to that previously used by Chen et al., (2004) for developing their *guanxi* scale, utilizing further free listing and pile sorting activities .

2.2.2 Study Two: Results

Three key variables emerged from the group free-lists and pile-sorts conducted in Study Two. Firstly, the degree of perceived bond with the *guanxi*-helper was regarded as a key determinant of the outcome of the scenarios provided. Participants concurred that this bond was best captured in the terms "strength" and "closeness". Secondly, the degree of "effort" exerted by the *guanxi*-helper, or alternatively the degree to which they "went out of their way", was also regarded as a behavioral indicator of the strength of *guanxi* present. Finally, the degree of the *guanxi*-helper's "influence", relative to the host organization, which could potentially be exerted on the intern's behalf, was also regarded as instrumental in determining the outcomes of the scenarios provided. Thus, two items relating to the *guanxi*-helper's influence relative to the host organization were also generated. Hence, the final pilot scale presented in table 3 consists of items capturing the categorical (GC), dynamic (GD), and influence (GI) dimensions of *guanxi* generated in studies One and Two in addition to two items adopted from Bian and Ang's (1997) study, given that their focal construct aimed to capture similar content as the PEG scale.

2.3 Study Three: Pilot Scale, Validation

2.3.1 Sample and Procedures

The sample for study three consisted of recent business school graduate. The pilot questionnaires were distributed to 352 graduates; from these, 227 valid questionnaires were returned, achieving a response rate of 70.04%. Amongst the respondents, 54% of the sample were female, and the mean age of respondents was 22.74 years (SD = .40).

2.3.2 Study Three: Results

The Principles Component Analysis (PCA) results, presented in Table 4, indicated a two-factor structure cumulatively explaining 58.54% of the total variance. The items associated with GD loaded strongly onto the first factor, with the exception of item GD-5, loading weakly. Cross-loadings exceeding .30 were produced by items GC-1, GI-1, GI-2. This factor structure is consistent with extant theory and the results of Study One and Study Two. Firstly, as item GC-1 represents the categorical dimension of *guanxi*, which is a pre-requisite for the dynamic dimensions of *guanxi*, it can be expected to cross-load across dimensions. With regard to the cross-loadings produced by items GI-1 and GI-2, this is also consistent with the content of these items, as they both gauge the *guanxi*-helper's influence. The level of influence can be expected to be partially related to *guanxi's* dynamic dimension, as stronger *guanxi* would be required in order to receive a favour from a more powerful *guanxi*-helper.

Table 4. Principle components analysis pilot scale

Item	Factor-1	Factor-2
GC-1	.61	.52
GD-1	.70	---
GD-2	.57	---
GD-3	.80	---
GD-4	.71	---
GD-5	.32	---
GD-6	.82	---
GD-7	.84	---
GI-1	.64	.60
GI-2	.72	.44

Note: Values < .30 suppressed

Assessment of the sub-scales, internal reliability was conducted to corroborate the above PCA's results outlined in table 3. The GD sub-scale yielded an average coefficient alpha of α =.83, and the GI subscale one of α =.83. Consistent with their weak factor loadings, items GD-2 and GD-5 produced weak individual coefficient alphas at α = .47 and α = .24 respectively. Given the results of the PCA and internal reliability analysis, item GS-5 was deleted from the scale, whilst item GD-2 was singled out for greater scrutiny in subsequent CFA analysis.

The results of the CFA conducted on the six-item GD sub-scale are presented in Table 5, the scale yielded the following goodness-of-fit indices ($χ2 = 38.95$, df = 9, $χ2/df = 4.32$, TLI = .92, CFI = .95, RMSEA = .12, SRMR = .04) indicating a poor degree of fit with the data. Additionally, relatively high modification indices were associated with items GD-1 GD-2, and GD-4, identifying these items as the source of the misspecification (Hildebrandt 1987; Steenkamp & van Trijp 1991). Furthermore, these items achieved relatively weak factor loadings of GD-1 (β =.59), GD-2 (β =.48), and GD-4 (β =.64), indicating a lack of uni-dimensionality relative to the GS sub-scale.

Table 5. Confirmatory factor analysis dynamic *guanxi* sub scale

Item	Factor Loading
GD-1	.59
GD-2	.48
GD-3	.84
GD-4	.64
GD-5	---
GD-6	.84
GD-7	.85

Both items GD-1 and GD-2, which produced problematic CFA results, were not newly developed for this study; rather they had been adapted from Bian and Ang's (1997) study. Therefore, unlike the new items developed in studies One and Two, the content validity of these items had not been previously been established in earlier focus groups, relative to the specific context of this research. The third item yielding poor results was item GD-4, which measures the 'effort' exerted by the *guanxi*-helper. Item GD-5, which also measures effort relative to the extent the *guanxi*-helper went 'out of their way' to help them acquire their internship position, was deleted subsequent to poor PCA results, as both of these last items require respondents to gauge events of which they potentially have no direct knowledge. Hence, gauging this dimension may be largely arbitrary. Given these results, a final refined six-item scale was produced from the cumulative results of studies One, Two and Three, includes items GC-1, GD-3, GD-6, GD-7, GI-1, and GI-2, a scale which achieved a better fit to the data.

2.4 Study Four: Scale Test

2.4.1 Sample and Procedure

Study Four was conducted in order to further establish appropriate dimensionality of the final scale, and to establish is discriminate validity of the scale by incorporating a selection of established scales into Study Four, namely Proactive Personality (Parker, 1998), Leader-Member Exchange (Liden et al., 1993), Learning Opportunities will be measured using (D'Abate et al., 2009), In-role Performance (Farh & Cheng, 1999) and Job Satisfaction (Hackman & Oldman, 1975). A total of 1019 surveys were distributed, of which 506 replied, amounting to a response rate of 49.7, 62.3 percent were female, and their mean age was 21.30 years.

2.4.2 Study Four: Results

The CFA performed on the measurement model including all latent variables simultaneously, yielded goodness-of-fit indices indicating that the measurement model's structure fits the data well ($χ2 = 633.10$, df = 326, $χ2/df = 1.94$, TLI = .93, CFI = .94, RMSEA = .06, SRMR = .05). Additionally, all items in the model achieved factor loadings in excess of .50, indicating that items were measuring the appropriate latent variable (Steenkamp & van Trijp, 1991), results which also support the appropriate dimensionality of the scale.

In regards to discriminant validity, the scale was firstly accessed by performing bivariate correlations between substantive latent variables, all correlations yielded were substantially below the recommended threshold of .70 indicting discriminant validity (Ping, 2004). Additional support for the presence of discriminant validity in this study is provided, with the testing of six models with alternative factor structures, contrasted with the baseline

seven-factor measurement model used in the study. The results are presented in Table 6. All of the alternative models showed highly significant chi-square difference tests at p < .001, relative to the baseline model. This result supports the validity of the proposed seven-factor measurement model, and discriminant validity between the variables in the current study, as advised by Byrne (2010).

Table 6. Measurement model fit results for confirmatory factor analysis

Models	χ^2	df	$\Delta \chi^2$	Δ df	TLI	CFI	RMSEA	SRMR
Model 1 (7 factor)	526.42	275	___	___	.94	.95	.06	.05
Model 2 (6 factor)	804.01	283	277	18	.87	.88	.08	.07
Model 3 (5 factor)	1402.36	289	875	14	.73	.76	.13	.18
Model 4 (5 factor)	1100.15	288	573	13	.81	.83	.10	.08
Model 5 (3 factor)	1338.54	295	812	20	.76	.78	.12	.08
Model 6 (1 factor)	3253.92	299	2727	24	.32	.37	.19	.18

Notes: All $\Delta \chi^2$ difference tests were significant at ***p<.001

All models contrasted with Model-6.

As a final check of discriminant validity of the scale, nested chi-squared difference tests were performed between pairings of all the study's latent variables, constrained then un-constrained, as recommended by Bryne (2010). These tests produced significant chi-square differences at p = < .001 level, thus providing further evidence of discriminant validity of the PEG scale (Anderson & Gerbing, 1988; Byrne, 2010).

3. Discussion

3.1 Theoretical Implications

This paper developed and validated a new scale measuring PEG, over four studies. With regard to the categorical items generated for the scale via the free-listing and pile-sorting techniques, the categories generated largely aligned with the relationship categories of Family, Friend, and Acquaintance, proposed in previous work (e.g., Luo, 1997; Yang, 1994; Farh et al., 1998). Additionally, the clusters which emerged using strength/closeness, affection, and mutual benefit as grouping criteria are also supported in the existing literature (Tsang, 1998; Tsui & Farh, 1997). However, the findings diverged from previous categorically *guanxi* work, in that only three of the eleven relationship types could not be definitively aligned with *guanxi* strength, whereas previous work suggests relatively clear linkages between *guanxi* strength and categorical relationship proximity to the focal individual (Luo, 1997; Yang, 1997).

Specifically, previous categorical work aligned non-immediate family (i.e. first uncle) relationship categories with strong *guanxi*, as they were based on unconditional obligations, distinguished from weaker, more flexible forms of *guanxi*, including friendship (Hwang, 1987; Yang, 1993; Zhang & Zhang, 2006), whereas in this study this relationship category did not definitively align with strong *guanxi*, as asserted in previous work. This lack of clear *guanxi* strength demarcation between relationship categories may be attributed to the specific characteristics of the sample and target population, as they belong to a relatively homogenous generational cohort, which has been shown to hold less traditional values than the preceding generations of Chinese employees (McEwen et al., 2006; Gu et al., 2010). Hence, it is plausible that the traditionally-prescribed demarcation between relationship categories and associated *guanxi* strength is less rigidly defined amongst the next generation of Chinese employees.

Participants in studies One and Two identified the problematic nature of linking relationship categories with tangible outcomes of *guanxi*, consistent with Chen and Peng's (2008) distinction of *guanxi* practices from *guanxi* relational bases. Specifically, participants in this study emphasised the importance of the dynamic dimension of *guanxi* for gauging the actual strength of *guanxi* present. For instance, participants highlighted the degree of effort exerted by the *guanxi*-helper, on the respondent's behalf, as indicative of the strength of *guanxi* present. These sentiments echo that of Lin's (1999) network-ties research findings within Western contexts, which associate effort with the strength of a network tie. Additionally, a contextual variable of particular importance emerged in this study; the influence/power associated with the *guanxi*-helper relative to the host organisation. This finding converges with previous studies, suggesting that the influence/power associated with the *guanxi* was key in determining employment outcomes in China (Bian, 1997; Cheung & Gui, 2006; Bian & Ang, 1997).

3.2 Methodological Implications

In addition to the numerous theoretical contributions, this study is also able to contribute to methodological advancement, as it both developed and validated a new scale measuring pre-internship *guanxi*. Firstly, this study provides guidance to organisational researchers who wish to develop contextually relevant scales. This is because a number of the techniques used to generate items in the study were borrowed from anthropological researchers, including free-listing, pile-sorting, and scenario activities, are not commonly used in organisational research, therefore this study was able to demonstrate their utility for unearthing specific contextual elements when generating items for inclusion in scales used in organisational studies.

In addition, the study provides a measure of pre-internship *guanxi* for use in future studies. Hence, this study contributes towards answering calls from prominent Chinese management scholars for the development of new scales that are contextualised for the Chinese organisational environment (Tsui, 2006; Farh et al., 2006). Specifically this study develops and validates a means to measure a specific manifestation of the variable of *guanxi*, an indigenous variable which is acknowledged to have far-reaching impacts on Chinese organisational phenomena (Cheung et al., 2009; Smith et al., 2010; Hwang, 2004; Wong & Wong, 2013). Provision of this measure makes a notable contribution as despite *guanxi* been included as a focal construct in at least 235 organisational studies over the last three decades (Chen et al., 2013) researchers have noted that a well-defined coherent operationalization and consequently measurement of guanxi remains in its formative stages (Wong et al., 2010; Chen et al., 2004).

3.3 Implications for Management Practice

The impact of both *guanxi's* categorical and dynamic dimensions on management practice in China has long been acknowledged. This study suggests that managers should place a heaver emphasis on the dynamic dimensions of *guanxi*, when considering relationships in the workplace, particularly when approaching relationships with the younger generation of Chinese employees, as this study indicates that this generations conceptualisation of *guanxi* has evolved away from its categorical roots, blurring traditional demarcations between *guanxi* relationship categories (King, 1991; Jacobs, 1982; Tsang, 1998). Thus managers should be increasingly aware of the dynamic and fluid nature of *guanxi*, when approaching cross generational issues in the Chinese context (Cheung et al., 2008; Chen & Peng, 2008). Furthermore, these findings highlight to managers, that the next generation of Chinese employees bring a unique sets of attitudes, motivations to the workplace relative to preceding generations of Chinese employees, which will increasingly shape future management practices in China (McEwen et al., 2006; Gu et al., 2010), and *guanxi's* impact in the workplace.

3.4 Limitations and Future Studies

As aforementioned developing and establishing the validity of a new scale is an ongoing process. Thus, the scale developed in this study can be regarded as a preliminarily scale requiring further validation. Therefore, future studies are encouraged to test the scale on broader sample populations, outside of graduate job seekers, in addition to establishing both the divergent and convergent validity of the scale relative to additional relevant constructs.

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