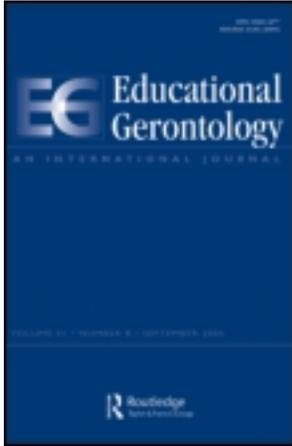


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Attitudes Towards Older People and Managers' Intention to Hire Older Workers: A Taiwanese Study

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ATTITUDES TOWARDS OLDER PEOPLE AND MANAGERS' INTENTION TO HIRE OLDER WORKERS: A TAIWANESE STUDY

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The aim of this research was to examine attitudinal barriers to the managerial intention to hire older workers (aged 60 and above). Structured questionnaires were used to collect data from a sample of managers with hiring power (N = 305). We found that (a) positive attitudes towards older people in general, perceived subjective norm, personal experiences with older people, and traditional Chinese cultural values were all related to stronger intentions to hire older workers; (b) among competing structural models, the expanded model adding personal experiences to the theory of reasoned action emerged to be the best one accounting for

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hiring intention. The associations of positive attitudes and subjective norm with intention were found after controlling for demographics, organizational characteristics, cultural values, and personal contact experiences with older people. Our results highlight the importance and urgency of more concerted research to inform public and organizational policies to better promote and manage the careers of older workers in an ageing developing society.

According to the United Nation's criterion, Taiwan is an aging society since 1993, as the proportion of those aged over 65 had exceeded 7% of the country's population, and this proportion further reached 9.7% in 2005. This trend will exacerbate when the postcivil-war (1949) cohort enters old age in 2014. The official projected proportion of 65+ is 14.6% in 2018 and 20.6% in 2025 (Taiwan Census Bureau, 2006). The realities of a rapidly aging society make the employment circumstances of older workers an increasingly important social issue. While in the developed world measures to ensure equal opportunities for older employees have been introduced (Kluge & Krings, 2008), the issue of employment of older workers has largely been overlooked in Taiwan. This is partly attributable to the commonly held projection of old age in Chinese societies being a time of leisure and retreat into family life with grandchildren. Such images neglect the considerable prevalence of employment among older Taiwanese: 31.6% for those aged 60–64 and 7.6% for those aged 65+ in 2006 (Taiwan Census Bureau, 2006). A recent nationwide survey (Lu, 2010) found even higher percentages (41.5% and 26.5%) of those working over 60 (60–64 and 65–69, respectively). Discussions have recently commenced on whether to revise or abolish the statutory retirement age (65 for public sector workers) in the hope of injecting more human resources to tackle the worsening problem of labor supply shortage in Taiwan (Chou, 2006). To compliment the policy debate, we purport that individual-level psychosocial factors should be taken into account. After all, while abiding the laws, decisions are made by managers to hire older workers. The purpose of this study, therefore, was to explore some of these potential psychosocial factors that may affect the employment plight of older workers; specifically, these factors are managers' general attitudes about older people and their perceived social pressure to hire older workers.

Old age may be defined in many ways. For instance, 65 is the internationally adopted marker used by the United Nations, and 60–65 is the statutory retirement age in different countries. One nationwide survey in Taiwan revealed that Taiwanese people generally regarded

60 as the defining age of being old, not the official criterion of 65 (Lee, 1999). To better represent this culture-specific psychological reality, in the present study we defined “older workers” as those who were over 60 years of age.

THE EMPLOYMENT HARDSHIP OF OLDER TAIWANESE WORKERS

As stated earlier, for many in Taiwan, paid work is still an option in old age. For some, it is a matter of economic necessity—78.1% cited “maintaining personal and familial standard of living” as the most important reason for continued work into old age (Council of Labor Affairs, 1999, p. 22). For others, it may be a life-style choice, especially those who are better educated and skilled. Continued employment in old age is beneficial for mental health (Christ et al., 2007); social integration (Ginn & Fast, 2006); and brain/cognitive functions (Fratiglioni, Paillard-Borg, & Winblad, 2004). For the society at large, working older people can help boost productivity and tax revenue, enrich the pool of human resources, and reduce public spending on entitlements needed to support early retirement. In sum, the realities of a rapidly aging society make the employment circumstances of older workers a pressing concern for individuals and society alike.

However, Taiwan’s older workers are facing some serious challenges in employment, yet their plight has been largely neglected. Using official employment data, Y. S. Wu (2002) noted that older workers compared to younger workers in Taiwan suffered from higher unemployment rate, longer unemployment duration, and greater difficulties in finding jobs again. H. S. Wu (2006) further pointed out that the employment rate for Taiwanese workers aged 60–64 (33.49%) was generally lower than that of developed countries (e.g., 50.9% in the U.S.) and our East Asian neighbors (e.g., Japan: 54.7%; Korea: 53.6%). Both scholars highlighted industrial restructuring and low education attainment of the older workers as main factors constraining their opportunities for finding adequate employment in the computer era. Indeed, a recent multivariate analysis using data from a nationwide survey revealed that age, sex, personal health, spousal health, and family income were significant predictors of continued employment after age 50. Sex (female) and (lower) education were also significant risk factors of employment hardship for older workers (Lu, 2010). These results highlight the importance and urgency of more concerted research to inform public labor policies, especially in an aging developing society where older workers are

faced with a double challenge of economic and societal restructuring. In addition to such macro-level phenomena, are there psychosocial barriers to the employment of older workers in Taiwan?

PSYCHOSOCIAL BARRIERS TO THE EMPLOYMENT OF OLDER WORKERS IN TAIWAN

Although there has been very little empirical research on employment hardship of older workers in Taiwan, some scholars (H. S. Wu, 2006; Y. S. Wu, 2002) have speculated that structural factors—such as industrial restructuring and company downsizing, cutting overhead costs of pension and retirement entitlements—are potential obstacles for workers to obtain stable employment after age 50. Others (Lu, 2010; Su, 2007) have identified personal and familial factors—such as the female sex, the minimal education attainment or lower skill level, poor health, and sick family members—as risk factors for older workers slipping into unemployment or underemployment. Yet another set of potential environmental barriers have not been rigorously examined in the Taiwanese context. These are attitudinal factors such as negative expectations of the productivity of older workers, age-discriminatory stereotypes, and general negative attitudes towards older people held by managers—especially those gatekeepers with hiring power.

For decades, research has shown that negative attitudes and stereotypes about older people in general (McTavish, 1971; Polizzi & Millikin, 2002)—and older employees in particular (Bird & Fischer, 1986; Lyon & Pollard, 1997; Rosen & Jerdee, 1976)—exist in the West. Moreover, studies demonstrated that discrimination against older employees was reflected in common human resources (HR) practices with respect to selection, promotion, compensation, and training (Kluge & Krings, 2008; McVittie, McKinlay, & Widdicombe, 2003; Perry, Kulik, & Bourhis, 1996). Consequently, older employees often feel discriminated against because of their age (Duncan, 2003; McVittie et al., 2003). Furthermore, the emergent *new ageism* is taking even more covert, ambiguous, and fluid forms (Duncan, 2003), and the promotion of the principle of equal opportunity in employment has not improved prospects for older workers in developed economies (McVittie et al., 2003).

In Taiwan, being a rare exception in social gerontological research, a series of recent studies examined attitudes towards older people across a wide age range of the population (Lu & Kao, 2009, 2010; Lu, Kao, & Hsieh, 2010). Findings show that people of different

age groups (from adolescents to adults) all possessed generally negative attitudes towards older people (Lu & Kao, 2009; Lu et al., 2010). Furthermore, these negative attitudes were positively associated with lowered intentions among students to take up careers involving serving/helping older people (Lu & Kao, 2010). Apparently, ageism in the form of negative stereotypes of older people is still prevalent in the Taiwanese society and may even have behavioral implications such as career choice.

In the work context, a recent survey of Taiwanese managers (Cheng, 2007) revealed that the incongruence between older workers' values and corporate culture was the utmost concern in managing older workers, followed by overhead concerns. Another study (Huang, 2007) further delineated managers' negative perceptions of older workers' job performance including restriction of work location, poor health and physical strength, unwillingness to learn new knowledge and techniques, and low motivation for innovation and creation. It, thus, seems that ageism in the form of negative stereotypes of older employees is also prevalent in the Taiwanese work environment, notably among the gate-keeping managers.

The question now is whether the general negative attitudes towards older workers held by managers actually lead to discriminatory intentions of rejecting older workers in employment decisions? This behavioral consequence can be understood through the theory of reasoned action (Ajzen & Fishbein; 1980; Fishbein & Ajzen, 1975). The debate on attitude-behavior (A-B) correspondence has invoked great interest among social scientists. The theory of reasoned action is an important attempt to specify this process. This model is based on the assumption that behavior is rational, and it incorporates several factors that have been shown to affect the consistency between attitude and behavior (DeLamater & Myers, 2007). According to the reasoned action model, behavior is determined by behavioral intention. Behavioral intention is primarily influenced by two factors: attitude and subjective norm. Attitude refers to positive or negative feelings about engaging in a behavior. Subjective norm is the individual's perception of others' beliefs about whether a behavior is appropriate or not. In other words, subjective norm is one form of situational constraint. Some studies have supported predictions made by this model (DeLamater & Myers, 2007), and these predictions apply better to behaviors that are under an individual's control or nonhabitual (e.g., Liska, 1984; Schifter & Ajzen, 1985).

Applying the reasoned action model to our current case, *behavioral intention* refers to the willingness to hire older workers; *attitude* refers to managers' general attitude towards older people; and *subjective*

norm refers to the perception of others' beliefs about whether the behavior (employing older workers) is appropriate or not. So far there are only two published studies looking at the link between attitudes towards older people and relevant behavioral intentions in Taiwan. Hsieh (1996) found that attitudes towards older people related to subsequent intention of counseling older adults among trainee counselors. Lu and Kao (2010) found that university students' attitudes towards older people related to their future career choices to serve/work for older persons. However, both samples were students and no measures of situational constraints (subjective norm) were employed. We, thus, addressed this void by including both attitude and subjective norm in the study and by targeting a population of gate-keeping managers who have hiring power. We hypothesize: More positive attitudes towards older people are related to stronger intentions to hire older workers (Hypothesis 1); and Stronger perceived subjective norms are related to stronger intentions to hire older workers (Hypothesis 2).

In Lu and Kao's study (2010), two other factors were found to be correlates of Taiwanese students' interactional intentions regarding older people: personal experiences and traditional Chinese values. The contact hypothesis is originally formulated as a technique to reduce intergroup conflict; it postulates that through increasing intergroup contact, the likelihood of intergroup conflict may be reduced (Amir, 1976). Applying this theory, the above mentioned findings can be understood: higher quality of personal experiences with older people in social contact fostered more positive attitudes that, in turn, enhanced behavioral intention in the form of career choice. Thus, we included personal experiences with older people in explaining behavioral intentions of managers in the present study. We hypothesize: More positive personal experiences with older people are related to stronger intentions to hire older workers (Hypothesis 3).

The above study also found that traditional Chinese cultural values, such as filial piety, helped to explain students' intentions to interact with older people in social context (Lu & Kao, 2010). Although extant empirical results depict a general negative image of old age and older people held by a wide range of Taiwanese people, a finer-grained analysis did reveal that some positive aspects of aging were acknowledged both by the older people themselves and by members of other age groups (Lu & Kao, 2009; Lu et al., 2010). Specifically, positive attitudes pertaining to psychological and cognitive aspects of aging, such as rich experiences, wisdom, and authoritative status, were attributed to older people. Specific to the work situation, older employees were also perceived by managers as more

conscientious, committed, and experienced compared to their younger counterparts (Huang, 2007). We, thus, argue that traditional Chinese cultural values of respecting the old and accepting established social hierarchy may act as another situational constraint (social norm) that helps to strengthen status and prestige of older people (Lu & Chen, 2002). We, thus, included two traditional Chinese cultural values in explaining behavioral intentions of managers in the present study. We hypothesize: Stronger Chinese traditional values would be related to stronger intentions to hire older workers (Hypothesis 4).

METHOD

Samples & Procedures

We used structured questionnaires to collect data. Potential participants were recruited through social networks and acquainted managers of various organizations all over the country. The inclusion criterion was that managers must have hiring power in personnel decisions as human resource managers, divisional managers, or project managers who had the discretion of choosing team members. A booklet containing cover letters, questionnaires, and a return envelope was sent to each contact person, who then distributed these materials to qualified participants and mailed completed questionnaires back to the researchers. A total of 305 usable questionnaires were received, achieving a response rate of 93.27%.

The sample ($N = 305$) consisted of 156 men and 149 women, with a mean age of 39.47 years ($SD = 8.38$). The majority (77.8%) of our participants had above college education, with an average formal education of 16.17 years ($SD = 1.93$). Most of them (67.2%) were middle-level managers, with an average tenure of 9.25 years ($SD = 7.57$). The occupational profile of our sample is diverse, comprised of managers in manufacturing (37.7%), service sector (33%), commerce/trading (14%), culture/education (11%), health care (3.3%), and other occupations (1%).

Comparing our sample characteristics to those of a recent national survey using stratified random sampling method (Taiwan Social Change Survey [TSCS], Lu, Kao, Chang, Wu, & Cooper, 2008), our sample was about the same age (TSCS: Mean = 40, $SD = 10.94$); but had more years of education (TSCS: Mean = 12.70, $SD = 3.63$); and slightly more seniority at work (TSCS: Mean = 8.54, $SD = 8.97$). While there are discrepancies between our sample and the

representative national sample, our sample profile is distinct from that of university students.

Instruments

Attitudes Towards Older People

The Older People Scale ([OPS], Lu & Kao, 2009) is the first standardized scale developed specifically for the Chinese people to assess attitudes towards older people in general. The developers of the OPS used age 60 as the marker for older people in the stem of all items, which is consistent with our definition of older workers in the present study.

Lu and Kao (2009, 2010) have provided evidence of the reliability and validity of the OPS. The 22-item brief version was used in this study. With “In general, older people (those who are over 60 years of age) are . . .” as the stem, four aspects of attitudes were assessed: Appearance and physical characteristics (5 items, e.g., “weak and illness-prone,” reversed score); Psychological and cognitive characteristics (7 items, e.g., “possessing problem-solving ability”); Interpersonal relations and social participation (7 items, e.g., “disengaged from the society”), and Work and economic safety (3 items, e.g., “financially poor,” reversed score). Though the content of the 22 items tapped diverse aspects, they converged on a single latent construct as shown in confirmatory factor analysis, supporting a one-factor solution (Lu & Kao, 2010). Exploratory factor analysis using data from the present sample also revealed that only one factor (Eigen value = 8.31) could be extracted accounting for 67.48% of the total variance. All 22 items loaded on this single factor ranging from .43–.80. Thus, aggregation of scores was adopted as advised by the original developers of the scale.

Each item in the OPS was rated on a seven-point scale (1 = *strongly disagree*, 7 = *strongly agree*). A higher aggregated score indicated more positive attitudes towards older people. In the present study, internal consistency alpha was .83 for the scale.

Subjective Norm

Four items were developed to assess participants’ perception about the social norm (encouraging the employment of older workers) and their willingness to conform. The following are these items: “Do you perceive that the government encourages the employment of older workers?” “Do you think that the employment of older workers should be encouraged?” “Are you willing to help the employment of older workers?” “Do you perceive that your

organization encourages the employment of older workers?" Respondents checked with a forced-choice format (1 = *Yes*, 0 = *No*). Exploratory factor analysis revealed that only one factor (Eigen value = 4.80) could be extracted, and it accounted for 59.66% of the total variance. All four items loaded on this single factor ranging from .69–.75. Thus, an aggregated score was used to indicate subjective norm regarding the employment of older people. In the present study, internal consistency alpha was .67 for the scale.

Personal Experiences

Three items were adopted to assess participants' personal experiences with older people in general social contexts (Lu & Kao, 2010). Respondents were asked to rate the quality of their interaction with older people in family, community, and at work (1 = *Very Very poor*, 10 = *Very good*). Exploratory factor analysis revealed that only one factor (Eigen value = 2.05) could be extracted, and it accounted for 65.64% of the total variance. All three items loaded on this single factor ranging from .78–.81. Thus, an aggregated score was used to indicate the quality of personal experiences with older people. In the present study, internal consistency alpha was .76 for the scale.

Chinese Cultural Values

The Social-oriented Self Scale ([SoSS], Lu, 2007) is the first standardized scale developed specifically for the Chinese people; it assesses the conceptualization of the traditional Chinese self. The social-oriented self derives from a belief in the individual's connectedness and interdependence to others, and it emphasizes roles, statuses, positions, commitments, and responsibilities. The Confucius tradition strongly advocates the relational and social way of the self; it respects the social hierarchy (within which older people have a prestigious position) as the core of cultural values. Lu (2007; 2008; Lu, Kao, Chang, Wu, & Zhang, 2008) have provided evidence of the reliability and validity of the SoSS as a measure of traditional Chinese cultural values for both Taiwanese and mainland Chinese. The 14-item brief version was used in this study. Sample items are as follows: "We should treat people differently to reflect the different degree of intimacy." "I always view people who are intimate to me as a part of myself." Each item was rated on a six-point scale (1 = *strongly disagree*, 6 = *strongly agree*). A higher aggregated score indicated higher endorsement on this traditional Chinese value. In the present study, internal consistency alpha was .85 for the scale.

Intention to Hire Older Workers

Three items were developed to assess participants' intention to hire older workers in daily work situations. These items were as follows: "If other things being equal, will you prioritize an older worker for hiring?" "Even though he/she is not the best available person, will you still prioritize an older worker for hiring?" "Will you prioritize an older worker as your team member?" (1 = *Very unwilling*, 7 = *Very Very willing*). The formality of these three items was the same as the one used in Lu and Kao's (2010) study of students' career intentions, which was shown attributable to their general attitudes towards older people. Using data from the present sample, exploratory factor analysis revealed that only one factor (Eigen value = 3.01) could be extracted; it accounted for 75.34% of the total variance. All three items loaded on this single factor ranging from .86–.88. Thus, an aggregated score was used to indicate the behavioral intention of working with older people. In the present study, internal consistency alpha was .83 for the scale.

Organizational Background

As discussed by scholars and policy advisers in Taiwan (H. S. Wu, 2006; Y. S. Wu, 2002), some organizational features may facilitate or hinder the employment of older workers. Specifically, larger organizations (1 = *more than 250 employees*, 0 = *fewer than 250 employees*); higher quality of human capital (majority of employees had higher education: 1 = *yes*, 0 = *no*); and more older employees already in the workforce (1 = *yes*, 0 = *no*) were speculated to be conducive to the employment of older workers. These were used as control variables in the present study.

RESULTS

As a preliminary analysis, we checked the skewness and kurtosis of all variables. Skewness varied from .26 to .47, all within the -1 to $+1$ range. Kurtosis varied from $-.95$ to 2.52, traditional cultural values (2.52) being the only one outside the -1 to $+1$ range. Overall, all variables except cultural values seemed to conform to the normal distribution.

Before testing the four hypotheses, we computed Pearson correlations among main research variables. Table 1 reports correlation results along with scale means and standard deviations. Attitudes towards older people, subjective norm, personal experiences, and traditional values (social-oriented self) all significantly correlated

Table 1. Intercorrelations among main variables

Variables	Sex	Age	Edu (yrs.)	Tenure	PE	Orgsize	Old	Hedu	Occup	SSelf	ATOP	SN	Int
Sex	1.00												
Age	-.18**	1.00											
Edu (yrs.)	-.07	-.07	1.00										
Tenure	-.02	.63***	-.12*	1.00									
PE	-.02	.18**	.03	.13*	1.00								
OrgSize	-.12*	.19**	.14*	.03	-.08	1.00							
Old	.11	.12*	-.02	.07	.13*	.14*	1.00						
Hedu	-.05	-.07	.38***	.00	-.03	.12*	-.14*	1.00					
Occup	.28***	-.01	.04	.12*	.02	-.22***	.00	.08	1.00				
SSelf	-.11	.06	-.16**	.05	.28***	-.01	-.06	-.03	-.09	1.00			
ATOP	-.31***	.13*	-.01	.06	.30***	.10	.04	-.05	-.06	.14*	1.00		
SN	-.04	.11	-.05	.05	.15*	-.03	.06	.00	.04	.14*	.23***	1.00	
Int	.01	.11	-.04	.04	.17**	-.02	.07	.01	.05	.16**	.18**	.32***	1.00
Cronbach's alpha	/	/	/	/	.73	/	/	/	/	.85	.83	.67	.83
Scale mean	.49	39.47	16.17	9.25	6.60	.24	1.11	2.70	.62	4.93	4.44	.41	3.07
SD	.50	8.54	2.02	7.63	1.56	.43	.35	.50	.49	.58	.69	.32	1.17

Notes. Sex: 0 = M, 1 = F; PE = personal experiences with older people; OrgSize: 0 = below 250, 1 = above 250; Old = majority of older employees; 1 = yes, 0 = no; Hedu = majority of highly educated employees; 1 = yes, 0 = no; Occup: 0 = manufacturing, 1 = trading/service/education/medical care; SSelf = social-oriented self; ATOP = attitudes towards older people; SN = subjective norm; Int = intention to hire older workers.
* $p < .05$, ** $p < .01$, *** $p < .001$.

with the intention to hire older workers. All relations were in the expected direction.

None of the demographic variables and organizational features correlated with the intention to hire older workers. As age and tenure had a high correlation ($r = .63$), we used age only in subsequent regression analysis to avoid multicollinearity.

We then conducted a series of hierarchical regression analyses to test our four hypotheses. In the first step of regression, we entered demographic and organizational variables of sex, age, education years, organizational size, majority of older employees, and majority of highly educated employees as control variables. This was done to partial out any potential effects they may have on behavioral intentions. Personal experiences with older people were also entered at this step, as they were part of the personal background. Second, we entered traditional values (social-oriented self) and attitudes towards older people, as both were generic attitudinal factors. At step three, we entered subjective norm. In so doing, hypotheses (H1, H2) derived from the reasoned action model were tested after possible contributions of demographics, organization features, experiences (H3), and values (H4) were all accounted for.

The results reported in Table 2 show that personal experiences were the only background features related to the intention to hire older workers (Model 1). Traditional Chinese values (social-oriented self) were not related to the behavioral intention. Having controlled for effects of all the above factors, attitudes towards older people and subjective norm still had positive relations with the intention to hire older workers (Model 3). Thus, Hypotheses 1, 2, and 3 were supported. However, H4 was not supported.

We proceeded with a comparison of possible theoretical models accounting for the intention to hire older workers, as implied in the previous literature review. AMOS 5.0 was used to test these structural models applying the Maximum Likelihood technique. The base model (Model 3) was specified containing only two paths—from attitude and subjective norm—leading to intention, as predicted by the theory of reasoned action. Two competing models were then specified, adding extra paths to the base model. Model 1 contained two extra paths leading from personal experiences and social-oriented self (as predicted by the Chinese cultural values) to intention. Model 2 contained the extra path leading from personal experiences to intention, as predicted by the contact hypothesis. We followed suggestions by Bentler (1990) and Raykov, Tomer and Nesselroade (1991) regarding criteria for evaluating SEM models. Specifically, the fitness indices (goodness of fit [GFI] and adjusted goodness of fit [AGFI]) should be in the

Table 2. Hierarchical regression analysis predicting the intention to hire older workers

Step	Predictors	Intention to hire older workers					
		Model 1		Model 2		Model 3	
		ΔR^2	β	ΔR^2	β	ΔR^2	B
1	Sex		.02		.08		.07
	Age		.09		.09		.07
	Education yrs.		-.05		-.03		-.02
	Personal experiences		.15*		.07		.05
	Organization size		-.02		-.02		-.01
	Majority of older employees		.05		.06		.04
	Majority of highly edu. employees	.04	.05	.04	.04	.04	.04
2	Social-oriented self				.12		.10
	Attitudes towards older people			.04*	.16*	.04*	.16*
3	Subjective norm					.07***	.27***
	Total R^2	.15		.02		.31	
	Final $F(df)$	1.57(7, 256)		2.32*(9, 254)		4.15*** (10, 253)	

Notes. Sex: 0 = M, 1 = F; PE = personal experiences with older people; organization size: 0 = below 250, 1 = above 250; majority of older employees: 1 = yes, 0 = no; majority of highly educated employees: 1 = yes, 0 = no. Standardized coefficients β and F are taken from the final equation.

* $p < .05$, *** $p < .001$.

upper .90s, and residuals (RMSEA) need to be small (<.08). Results are summarized in Table 3. Judging from these criteria, Model 2 (reasoned action + personal experiences) best fit the data. However, Model 1 and Model 3 were also acceptable on their own right. All path coefficients were statistically significant in all three models.

Table 3. Estimates of competing structural models accounting for the intention to hire older workers

	N	χ^2	df	χ^2/df	GFI	AGFI	RMSEA
Model 1 (base + experiences + cultural values)	305	43.67	5	8.73	.94	.83	.16
Model 2 (base + experiences)	305	17.82	2	8.91	.97	.86	.10
Model 3 (base model)	305	15.33	1	15.33	.97	.81	.22
Model comparison				$\Delta\chi^2$	Δdf	p	Better model
Model 1 vs. Model 2				25.85	3	.001	Model 2
Model 2 vs. Model 3				2.49	1		Model 2
Model 1 vs. Model 3				28.34	4	.001	Model 3

DISCUSSION

The present study explored the role of attitudinal factors as barriers to the employment of older workers in a Taiwanese context, with special attention towards managers' general attitudes towards older people. Our results show that the theory of reasoned action (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980) is a useful framework to explain managers' intentions to hire older workers on a day-to-day basis. Hopefully, this knowledge will lead to a more friendly work environment in general and improved HR practices in particular that are more conducive to the employment of older workers. As predicted by the theory of reasoned action, our regression analysis revealed—after all other relevant factors were taken into account (see Table 2)—attitudes towards older people and subjective norm regarding the employment of older workers jointly explained 11% of the total variance in behavioral intention. In addition to the theory of reasoned action, the contact hypothesis (Amir, 1976), originally developed for explaining intergroup conflict and resolution, was also applicable in the context of employment of older workers (Table 2, Model 1). Furthermore, the comparison of competing structural models showed that the one based on the theory of reasoned action but adding personal experiences as a path was the most effective one; it was succinct and fitted well with empirical data. However, the inclusion of traditional Chinese cultural values, such as interpersonal relatedness and social duties, did not add further explanatory power to the equation (Table 2, Model 2). This is probably due to the small variance on the traditional Chinese cultural values in this sample (indicated by its high peak distribution). After all, the social-oriented self as a traditional Chinese cultural value has been found to still occupy a dominant position in the value system among the adult population in Taiwan (Lu, 2007, 2008; Lu et al., 2008).

One of the contributions of the present study is to introduce various theoretical models to inspire and organize research of employment issues in old age, which has so far been speculative and unsystematic. To compliment existing and ongoing discussions centering around industrial restructuring (H. S. Wu, 2006; Y. S. Wu, 2002) and demographical risk factors (Lu, 2010), we have now extended the list of potential psychosocial barriers to the employment of older workers such as the general attitudes towards older people, perceived social norm, and personal experiences with older people. Existing research has shown that managers' negative expectations of the productivity of older workers often influence HR practices (Cheng, 2007; Huang, 2007). We noted that managers' negative

attitudes towards older people may assert their impact much earlier and more profoundly in gate-keeping hiring decisions. Such a subtle form of new-ageism (not pro-hiring/recruiting of older workers) impedes the right of older workers and their quality of work life. More attention should be paid to these emergent forms of new-ageism, as they are becoming more covert, fluid, ambiguous, and subtle (Duncan, 2003).

In the present study, using the OPS (Lu & Kao, 2009) to measure managers' general attitudes towards older people, we obtained item mean of 4.44 ($SD = 0.69$) on a 1–7 scale. This value is statistically significant from the scale midpoint of 4 ($t = 8.12, p < .001$), tilting towards the positive end. Our results thus corroborate Western findings that attitudes towards older employees are becoming more positive (Hassell & Perrewe, 1995; Kluge & Krings, 2008), though different measures were used in these studies. It is, thus, more appropriate to compare our results with those obtained in three recent Taiwanese studies using the OPS. Lu and Kao (2009) reported the item mean of 4.23 ($SD = 0.74, N = 991$) for a large sample with a wide age range; 4.74 ($SD = 1.09, N = 391$) for a sample of community older people (Lu, Kao, & Hsieh, 2010); and 4.46 ($SD = 0.77, N = 316$) for a sample of college students (Lu & Kao, 2010). Managers in the present study have significantly more positive attitudes than those of the general population ($t = 4.57, p < .001$); significantly more negative attitudes than those of the older people themselves ($t = -4.42, p < .001$); and similar attitudes to those of university students ($t = -0.34, ns$). These results confirm that in Taiwan, although negative stereotypes of older people are slowly being dismantled, older people themselves still view aging far more positively than the way their younger counterparts view it. This cognitive and attitudinal gap may again fuel the various forms of new-ageism at work. Education can be an effective tool to close this gap. Ample Western studies have demonstrated the beneficial effects of education programs on dismantling negative stereotypes and ageism (Funderburk, Damron-Rodriguez, Levy Storms, & Solomon, 2006; Harris & Dollinger, 2001); we in Taiwan need to be more rigorous in promoting and implementing such programs at school, in the community, and at work.

Contrary to popular images of the older years being a time of retirement and leisure, evidence has shown that labor force participation among older Taiwanese is rather substantial (Taiwan Census Bureau, 2006). The recent nationwide survey (Lu, 2010) revealed even higher percentages of continued employment well into the later years than the published official labor figures. The same study also revealed

substantial percentages of underemployment among the older workers throughout the later years—in particular among less-educated and female workers. Many Taiwanese older adults now opt for continued employment due to financial needs. This reflects a changing social reality in Taiwan that older parents can no longer pin their hopes on children for complete financial support and unconditional care, as sanctioned by the Chinese traditional value of filial piety (Lu, Kao, & Chen, 2006). In fact, many Taiwanese older people express deep concerns and intense anxiety over old-age poverty (Lu & Chen, 2002). In light of the financial necessity to work, older adults' employment plight deserves serious concern and institutional help. To better inform public policies and HR practices, the specific circumstances leading to employment hardship for older people deserve more concerted research probing. And attitudinal change interventions, as suggested by the present study, may be needed.

However, readers should still keep in mind that the present study has certain limitations. First, the study design was cross-sectional; thus, no causal conclusions are legitimate. However, our hypotheses were derived from well-established theoretical models and the likelihood of reserved causality is not great. Second, our data were gathered using structured questionnaires. Future studies may consider employing qualitative methods to explore in more detail the decision-making process in the hiring of older workers. In this way, a fuller and richer understanding of the psychological mechanism can be revealed. Finally, the present study did not include views from older workers themselves. Different informants should be approached in future studies to construct a more complete picture of the employment circumstances facing older workers.

Despite these limitations, the present study has important implications for the individual and the society. On an individual level, while we are living longer than ever before, and facing uncertainties with pension plans and rising health care costs, many continue to work out of economic necessity or lifestyle choices. As the vulnerable sectors of the labor force usually bear the blunt of economic downsizing or industrial restructuring, the older workers have to tackle overt and covert discrimination, resulting in even graver labor market challenges. On the society level, we collectively pay an increasing price for the underutilization of older workers in terms of lost productivity, prolonged retirement entitlements, and increasing social welfare benefits. In sum, the realities of an ageing society call for greater attention to the labor market challenges to older workers. The unique circumstances facing the older workers should be systematically examined. The findings should then be used to formulate public

policies and organizational practices that ameliorate the employment hardship of the older employees.

REFERENCES

- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Amir, Y. (1976). The role of intergroup contact in change of prejudice and ethnic relations. In P. A. Katz (Ed.), *Towards the elimination of racism* (pp. 245–308). New York, NY: Pergamon.
- Bentler, P. M. (1990). Comparative indexes in structural models. *Psychological Bulletin*, *107*, 238–246.
- Bird, C. P., & Fisher, T. D. (1986). Thirty years later: Attitudes toward the employment of older workers. *Journal of Applied Psychology*, *71*, 515–517.
- Cheng, C. Y. (2007). Exploring the use of older workers as human resources. *Taiwan Bimonthly Journal of Labor Affairs*, *5*, 7–17.
- Chou, W. C. (2006). Employment policies for older workers in Taiwan's aging society. *Employment Security*, *5*, 1–17.
- Christ, S. L., Lee, D. J., Fleming, L. E., LeBlanc, W. G., Arheart, K. L., Chung-Bridges, K., . . . McCollister, K. E. (2007). Employment and occupation effects on depressive symptoms in older Americans: Does working past age 65 protect against depression? *Journals of Gerontology: Series B: Psychological Sciences Social Sciences*, *62B*, S399–S403.
- Council of Labor Affairs. (1999). *Report on the employment status of older workers*. Taipei, Taiwan: Executive Yuan.
- DeLamater, J. D., & Myers, D. J. (2007). *Social psychology* (6th ed.). Belmont, CA: Thomson.
- Duncan, C. (2003). Assessing anti-ageism routes to older worker re-engagement. *Work Employment and Society*, *17*, 101–120.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior*. Reading, MA: Addison-Wesley.
- Fratiglioni, L., Paillard-Borg, S., & Winblad, B. (2004). An active and socially integrated lifestyle in late life might protect against dementia. *The Lancet Neurology*, *3*, 343–353.
- Funderburk, B., Damron-Rodriguez, J., Levy Storms, L., & Solomon, D. H. (2006). Endurance of undergraduate attitudes toward older adults. *Educational Gerontology*, *32*, 447–462.
- Ginn, J., & Fast, J. (2006). Employment and social integration in midlife: Preferred and actual time use across welfare regime types. *Research on Aging*, *28*, 669–690.
- Harris, L. A., & Dollinger, S. (2001). Participation in a course on aging: Knowledge, attitudes, and anxiety about aging in oneself and others. *Educational Gerontology*, *27*, 657–667.
- Hassell, B. L., & Perrewe, P. L. (1995). An examination of beliefs about older workers: Do stereotypes still exist? *Journal of Organizational Behavior*, *16*, 457–468.

- Hsieh, L. H. (1996). Attitudes towards old people, intention to counsel old people, professional training and attitudes towards life in old age among trainee counselors. *Chinese Journal of counseling, 4*, 95–117.
- Huang, T. J. (2007). The changes and responses to the employment environment in an aging society. *Taiwan Bimonthly Journal of Labor Affairs, 5*, 18–29.
- Kluge, A., & Krings, F. (2008). Attitudes toward older workers and human resource practice. *Swiss Journal of Psychology, 67*, 61–64.
- Lee, L. J. (1999). Adults' perceived images of life experience and personality traits of middle-aged and older adults. *Bulletin of National Chengchi University, 78*, 1–54.
- Liska, A. (1984). A critical examination of the Fishbein-Ajzen attitude-behavior model. *Social Psychology Quarterly, 47*, 61–74.
- Lu, L., & Chen, H. H. (2002). An exploratory study on role adjustment and inter-generational relationships among the elderly in the changing Taiwan. *Research in Applied Psychology, 14*, 221–249.
- Lu, L. (2007). The individual- and social-oriented self views: Conceptual analysis and empirical assessment. *US-China Education Review, 4*, 1–24.
- Lu, L. (2008). The individual- and social-oriented Chinese bicultural self: Testing the theory. *Journal of Social Psychology, 148*, 347–374.
- Lu, L. (2010). Employment among older workers and inequality of gender and education: Evidence from a Taiwanese national survey. *International Journal of Ageing & Human Development, 70*, 145–162.
- Lu, L., & Kao, S. F. (2009). Attitudes towards old people in Taiwan: Scale development and preliminary evidence of reliability and validity. *Journal of Education and Psychology, 32*, 147–171.
- Lu, L., & Kao, S. F. (2010). Attitudes towards old people and their relation to career choices among Taiwanese university students. *Journal of Education and Psychology, 33*, 33–54.
- Lu, L., Kao, S. F., & Chen, F. Y. (2006). Psychological traditionality, modernity, filial piety and their influences on subjective well-being: A parent-child dyadic design. *Indigenous Psychological Research in Chinese Societies, 25*, 243–278.
- Lu, L., Kao, S. F., & Hsieh, Y. H. (2010). Positive attitudes towards older people and well-being among Chinese community older adults. *Journal of Applied Gerontology, 29*, 622–639.
- Lu, L., Kao, S. F., Chang, T. T., Wu, H. P., & Zhang, J. (2008). The individual- and social-oriented Chinese bicultural self: A sub-cultural analysis contrasting mainland Chinese and Taiwanese. *Social Behavior & Personality, 36*, 337–346.
- Lyon, P., & Pollard, D. (1997). Perceptions of the older worker: Is anything really changing? *Personnel Review, 26*, 245–57.
- McTavish, D. G. (1971). *Retirement marriage*. Storrs, CT: University of Connecticut Press.
- McVittie, C., McKinlay, A., & Widdicombe, S. (2003). Committed to (un)equal opportunities? “New ageism” and the older worker. *British Journal of Social Psychology, 42*, 595–612.
- Perry, E. L., Kulik, C. T., & Bourhis, A. (1996). Moderating effects of personal and contextual factors in age discrimination. *Journal of Applied Psychology, 81*, 628–647.

- Polizzi, K. G., & Millikin, R. J. (2002). Attitudes toward the elderly: Identifying problematic usage of ageist and overextended terminology in research instructions. *Educational Gerontology, 28*, 367–377.
- Raykov, T., Tomer, A., & Nesselroade, J. R. (1991). Reporting structural equation modeling results in psychology and aging: Some proposed guidelines. *Psychology and Aging, 6*, 499–503.
- Rosen, B., & Jerdee, T. (1976). The nature of job-related age stereotypes. *Journal of Applied Psychology, 61*, 180–183.
- Schifter, D. E., & Ajzen, I. (1985). Intention, perceived control and weight loss: An application of the theory of planned behavior. *Journal of Personality and Social Psychology, 45*, 843–851.
- Su, L. C. (2007). The trend of labor force participation among older workers in Taiwan. *Taiwan Bimonthly Journal of Labor Affairs, 8*, 18–32.
- Taiwan Census Bureau. (2006). *Yearbook of manpower survey statistics in Taiwan area, R.O.C.* Taipei, Taiwan: Executive Yuan.
- Wu, H. S. (2006). Women and labor force participation of older workers in Taiwan: Trend analysis and suggestions. *Taiwan Bimonthly Journal of Labor Affairs, 1*, 2–31.
- Wu, Y. S. (2002). Career training strategies for enhancing the employment competitiveness of older workers. *Employment Security, 1*, 1–10.