



Attitudes towards aging and older people's intentions to continue working: a Taiwanese study

Attitudes
towards aging
and working

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Abstract

Purpose – The aim of this research is to examine attitudinal correlates of older adults' (aged 60 and above) intentions to continue working in older age.

Design/methodology/approach – Structured questionnaires combined with home interviews were used to collect data from a sample of community older people ($n = 289$) in Taiwan.

Findings – The study found that positive attitudes towards aging held by older people themselves and perceived subjective norm were related to stronger intentions to continue working in older age, as predicted by the Theory of Reasoned Action, in addition, more positive daily personal experiences with non-older people enhanced intentions to continue working in older age through fostering more positive attitudes towards aging, as predicted by the contact hypothesis. Finally effects of some known demographic correlates of aging and work were also demonstrated in the structural model, namely, age, sex, current employment status, and personal health were all associated with intentions to continue working in older age.

Originality/value – This is the first study in Taiwan testing hypotheses derived from well-established social psychological theoretical models explaining links between attitudes and behavioral intentions of working in older age with a non-Western (Chinese) sample. The results highlight the importance and urgency of more concerted research to inform public and organizational policies to facilitate continued employment and better management of careers of older adults in an aging developing society.

Keywords Elderly people, Attitudes towards aging, Subjective norm, Intention to continue working, Attitudes, Personal experiences, Taiwan

Paper type Research paper

Introduction

Population aging is one of the most challenging issues of the twenty-first century, facing both developed and developing countries worldwide. In the developed world, there has already been a substantial amount of research on aging and work to help understand the capacity and potential of older people. There is an emerging view towards maintaining ability, developing potential, and continued competence (Ross, 2010). Older workers can compensate for a reduced ability to meet job demands by drawing upon experience and applying their resources in a more economic way. Thus, addressing the needs, wants, and well-being of older people is essential for maintaining a healthy productive workforce in an aging society. A recent series of review articles in *Occupational Medicine* (Ross, 2010) provides a valuable contribution to the knowledge of aging and work in the Western context. A special edition of *Career Development*



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International (Van de Heijden *et al.*, 2008) presents some state-of-the-art contributions to research on the topic from a European perspective, as an alternative to the abundance of Anglo-Saxon studies in the literature. However, there is still a pressing need for cross-national and multidisciplinary approaches and for a higher involvement of scholars from other parts of the world outside the USA, UK and European continent in research on aging and work (Ross, 2010; Shultz and Adams, 2007; Van de Heijden *et al.*, 2008). The present study examined a possible psychological process explaining the intention to continue working in a sample of Chinese older adults living in a developing economy (Taiwan, East Asia), thus answered the call by the above Western scholars.

Though a similar trend of population aging is observed in Taiwan, the issue of employment of older workers has largely been overlooked. Adopting the United Nation's criterion, the proportion of those aged over 65 exceeded 7 percent in 1993 and further reached 9.7 percent in 2005. This trend will exacerbate when the post-civil war (1949) cohort enters older age in 2014. The official projected figure is 14.6 percent in 2018, and 20.6 percent in 2025 (Taiwan Census Bureau, 2006). A similar demographic change related to the aging of Boomer Generation and its resultant impact is observed in the Taiwanese setting, though a few years late as happened in the West, and set in a different historical context. The large-scale forced migration of soldiers and government employees (mainly young males) to the Taiwan island following the defeat of the Nationalist regime in the Chinese Civil War (1945-1949), has contributed to the rapid rise of the proportion of aging sector in Taiwan and its unique demographic profile (more older, single males). The Taiwanese setting is thus very different for an aging worker from that of the West: continue working may be an economic necessity rather than an individual career choice (Council of Labor Affairs, 1999). Lacking of adequate institutional welfare safety net further makes early retirement a luxury many Taiwanese older workers cannot afford (Lu, 2010a). Consequently, the knowledge on aging and work built on research conducted in the developed Western countries with well-established institutional welfare regimes needs to be reexamined in the Taiwanese setting.

The realities of a rapidly aging society with a developing economy make the needs/desires of people to continue working in older age an increasingly important social issue. In fact, working in older age is not an exception in Taiwan: government figures showed that 31.6 percent of those aged 60-64 and 7.6 percent of those aged 65 + were working in 2006 (Taiwan Census Bureau, 2006). A recent nationwide study (Lu, 2010a) found even higher percentages (41.5 percent and 26.5 percent) of those working over 60 (60-64 and 65-69 respectively). However, the employment rate for Taiwanese workers aged 60-64 (33.49 percent) was still lower compared to that of developed countries (e.g. US: 50.9 percent), and our East Asian neighbors (e.g. Japan: 54.7 percent; Korea: 53.6 percent) (Wu, 2006). To compliment the emerging policy debate on encouraging continued employment and hiring of older workers in the hope of injecting more human resources to tackle the worsening problem of labor supply shortage in Taiwan, we purport that individual-level psychosocial factors should be taken into account. After all, decisions are made by each individual to stay in or quit the labor market when getting older. Our purpose of this study, therefore, was to explore some of these potential psychosocial factors that may affect the decision of

continue to work in older age, specifically people's attitudes towards aging in general and their perceived social sanction to continue working.

While older age may be defined in many ways, for instance, 65 as the internationally adopted marker used by the United Nations, or 60-65 as 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 plight of older adults in the West

Research has indicated that continued employment in older age is beneficial for mental health (Christ *et al.*, 2007), social integration (Ginn and Fast, 2006), and brain/cognitive functions (Fratiglioni *et al.*, 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 to support early retirement. In the US, issues such as the aging population of Baby Boomers, a predicted decrease in the talent pool, and recent and projected future economic conditions will likely put new pressure on older adults to remain employed for longer periods than they had planned (Baltes and Finkelstein, 2011). However, a recent review of research pertaining to employment opportunities available to older Americans painted a rather grim picture: the labor market continues to be stacked against older workers despite government efforts to curtail the prevailing age discrimination (Johnson, 2009). Specifically, many older workers lose their jobs to layoffs, and those who find new jobs suffer substantial earning losses. Older adults make up only a small fraction of all new hires. These employment hardship and discouraging prospects will eventually push older adults out of the labor market and undermine their retirement security (Hauser, 1974; Slack and Jensen, 2008).

In contrast to the American focus on encouraging employment of older workers and efforts to eradicate worksite ageism, the European research emphasizes more on flexibility and diversity of individual careers. Two broad approaches nonetheless can be discerned underlying much of the Western research: a life-course perspective on career development and employability on the one hand, career withdrawal behavior and early retirement on the other hand. While career theories and concepts have provided the overarching frameworks to guide research using the first approach (Van de Heijden *et al.*, 2008), retirement is usually conceptualized as a decision making process in the second approach (Wang and Shultz, 2010). On the one hand, many situational and individual factors have been identified contributing to sustainable work ability or employability such as HR practices and employees' motivation and proactivity (Mor-Barak, 1995; Van de Heijden *et al.*, 2008). On the other hand, cultural and individual attitudes towards retirement have been found to impact on the retirement decision (Van de Heijden *et al.*, 2008; Wang and Shultz, 2010). Informative as these findings from the West are, Taiwanese older workers may first and foremost, have to overcome both organizational and psychological barriers to their continued employment before they can exercise the freedom to make individual career and/or retirement plans.

The employment plight of older adults in Taiwan

As mentioned earlier, older workers in Taiwan are facing a tough plight. For many in Taiwan continuing paid work in older age is a matter of economic necessity: 78.1 percent gave “maintaining personal and familial standard of living” as the most important reason for continue working in older age (Council of Labor Affairs, 1999). However, like their American counterparts, older workers in Taiwan suffered from higher unemployment rate, longer unemployment duration, and greater difficulties in finding jobs again (Wu, 2002). 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, company downsizing, cutting overhead costs of pension and retirement entitlements, are potential obstacles for workers to obtain stable employment after age fifty. Corroborating these observations, a multivariate analysis using data from a national sample revealed that female and those with lower education were particularly at risk for employment hardship in older age (Lu, 2010a). These results highlight the importance and urgency of more concerted research to understand factors facilitating or hindering older adults’ decisions for and opportunities of continued employment in an aging developing society such as Taiwan. Unfortunately, as a secondary analysis, the above study had access to demographic and family background characteristics but no information on any psychosocial factors for analysis, as the national survey was not designed for researching on aging. What then may be the psychosocial facilitators/barriers to the employment options of older adults in Taiwan?

Psychosocial facilitators/barriers to the employment of older workers

Western research has dug deep into the reasons for continuing to work in older age. For instance, Smyer and Pitt-Catsoupes (2007) revealed that when mature job seekers hit the job market, they might be motivated by a number of non-salary factors. Using cluster analysis, Nakai *et al.* (2011) have identified three distinct groups of older job seekers (aged 41-76 years). There were those who work primarily for monetary and family reasons (labeled satisficers), those who seek personal satisfaction and learning opportunities from work (free agents), and those who seek employment for a broad variety of reasons (maximizers). These results highlighted that even in the West, older workers are not a homogeneous group that can be uniformly targeted through recruitment to retention in the human resource management process.

In addition to diverse motivational factors, personal and familial structural factors may influence older adults’ employment decisions. Western research has noted that perceived social identity as an “older worker” was related to negative attitudes towards work (stronger desire to retire early) (Desmette and Gaillard, 2008). Being categorized as “older workers” makes individuals potential targets for prejudice and discrimination related to aging both in the West (Duncan, 2003; Johnson, 2009) and in Taiwan (Huang, 2007). As empirical studies on aging and work are scarce in Taiwan, we know more about the demographic correlates of employment than attitudinal ones. For instance, analyzing national survey data, researchers have identified that sex (being female), minimal education attainment, lower skill levels, poor personal health, and having to care for sick family members are hindrance factors for continued employment in older age (Lu, 2010a; Su, 2007). While it is relatively easy to distinguish the continued working group from the ceased working group in terms of demographic/familial

characteristics in employment statistics or nationwide social surveys, such a distinction is not very useful for planning strategies to encourage older adults to stay in the job market (from a policy makers' perspective), or to attract and retain a healthy and productive aging workforce (from a managerial perspective). To better formulate focused strategies, we need to take attitudinal factors into consideration, especially those related to aging held by older adults themselves. This is because attitudes do lead to behaviors under the right conditions, according to the theory of reasoned action (TRA, Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975). The broad-scope attitudes towards aging may explain the link between self-categorization of being an "older worker" and the inclination to quit the job market early (Desmette and Gaillard, 2008). Previous research has examined effects of specific attitudes (those towards retirement) on employment decisions under the theoretical banner of reasoned action or planned behavior (Ajzen, 1991). Authors of recent review articles (Van de Heijden *et al.*, 2008; Wang and Shultz, 2010) have nonetheless urged researchers to adopt more integrated approaches with better conceptualizations of the age construct. To answer this call, we initiated a concerted pioneering program to examine Taiwanese managers' intentions to hire older workers, employees' intentions to work along side with older workers in teams, and older people's own intentions to continue working in older age. Adopting a higher-level, more abstract generic concept (attitudes towards aging) helps us to broaden the scope of aging and work research to involve all important parties: managers, current employees, and older people. This generic age construct also allow us to incorporate HR practices (predicted by attitudes towards older people from managers' and coworkers' perspectives) as well as individual career behaviors (predicted by attitudes towards own aging from older people's perspective) in a coherent overarching theoretical framework: TRA.

Applying TRA to guide research on aging and work

The theory of reasoned action postulates that human behavior is rational, and it incorporates several factors that have been shown to affect the consistency between attitude and behavior (DeLamater and Myers, 2007). Specifically, it proposes that behavior is determined by behavioral intention, which in turn 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 or social sanction. Some studies have supported predictions made by this model (DeLamater and Myers, 2007), and these predictions apply better to behaviors that are under individual's control or non-habitual (e.g. Liska, 1984; Schifter and Ajzen, 1985).

Applying TRA to our current case, the "behavioral intention" refers to the willingness of older adults to continue working in older age; "attitude" refers to their general attitude towards aging; and "subjective norm" refers to the perception of important others' beliefs about whether the behavior (continue working in older age) is appropriate or not. To our knowledge, predictions derived from TRA, specifically the association between attitudes towards aging and desires for continue employment in older age has never been empirically examined in a non-Western setting.

However, research has shown that other relevant attitudes are an important aspect in the employment plight of older people. As mentioned earlier, negative attitudes or

stereotypes towards older workers exist in the West (e.g. Lyon and Pollard, 1997). Moreover, recent studies in the US have shown that the restrained employment opportunities to older Americans were partly resulted from age discrimination, which appears to persist in the labor market despite legislative efforts to curtail it (Johnson, 2009). On the other hand, a recent study found that more positive views of work and non-traditional gender-role attitudes were predictive of wanting to continue working beyond 65 in a US sample of men and women with MBAs (Frieze *et al.*, 2011). Another German study with people aged 70-103 revealed that more positive self images in older age were associated with a more active and engaging state of mind and better emotional well-being (Freund and Smith, 1999).

In Taiwan, lacking powerful government intervention, ageism in the form of negative stereotypes of older employees is prevalent the work environment (Huang, 2007). Being the first Taiwanese concerted research program on aging and work, as mentioned above, we have explicitly tested predictions derived from TRA in explaining intentions of interested parties concerning older workers. In support of these predictions, we found that coworkers' attitudes towards older people as well as their perceived social norm were related to the intentions to cooperate with older workers in work teams (Lu, 2010b). Putting it in a different way, negative attitudes and a weak norm may result in subtle social isolation (a form of "new ageism") and eventual eviction of older workers (Duncan, 2003). More notably, gate-keeping managers' attitudes towards older people as well as their perceived social norm were found to be related to their intentions to hire older workers (Lu *et al.*, 2011), which may result in both overt and covert discrimination against older workers in HR practices.

To complete the trilogy of employers, coworkers, and employees, the older adults' own attitudes towards aging need to be examined and its association with continued employment explored. We thus addressed this void by including both attitude and subjective norm in the study, and targeting a population of older adults over 60 years of age. We hypothesize:

- H1. More positive attitudes towards aging would be related to stronger intentions to continue working in older age.
- H2. Stronger perceived subjective norm would be related to stronger intentions to continue working in older age.

Beyond TRA: other personal and familial factors involved in aging and work

In Lu *et al.*'s (2011) study, personal experiences concerning older people were also found to be predictive of managers' intentions to hire older workers. One other study (Lu and Kao, 2010) too found that Taiwanese students' career intentions concerning working with or serving older people were related to their personal experiences. The contact hypothesis may be used to understand this link. Originally formulated as a technique to reduce inter-group conflict, the contact hypothesis postulates that through increasing intergroup contact, the likelihood of intergroup conflict may be reduced (Amir, 1976). Applying this theory to explain the interactional intentions concerning older people, a possible mechanism may go like this: higher quality of previous or present personal experiences with older people in social contacts may foster more positive attitudes, which in turn may enhance behavioral intentions in the form of career choices or hiring decisions. Similarly, we may deduce that personal experiences

of older adults in dealing with non-older people may foster more positive attitudes towards aging as a result of reflected self-image. These more positive self-views may then influence their intentions of continue working in older age, as explained in *H1*. We thus hypothesize:

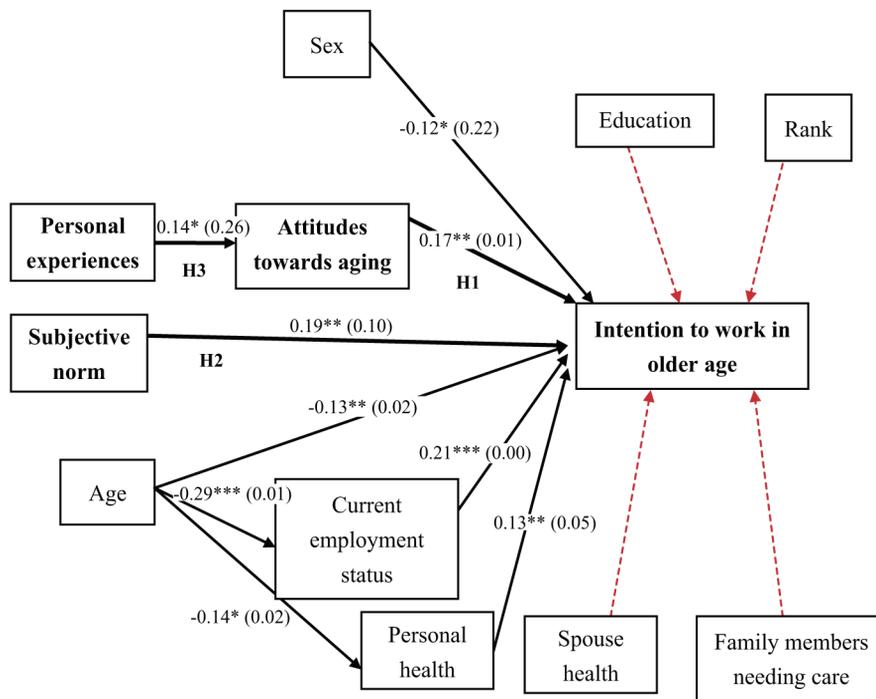
H3. More positive personal experiences with non-older people would be related to more positive attitudes towards aging which in turn would be related to stronger intentions to continue working in older age (mediation effect).

Finally, some known correlates of older adults' employment status were controlled to demonstrate the incremental value of our hypotheses in the present study. These were: sex, age, education, current employment status, personal health, spouse health, and family members needing care. Figure 1 shows the structural model to be tested (without path coefficients). The middle portion represents the three hypotheses and all controlled variables are incorporated in the figure.

Method

Samples and procedures

We combined face-to-face interviews with structured questionnaires to collect data from community-residing older people in Taiwan. The potential participating



Notes: $*p < 0.05$, $**p < 0.01$, $***p < 0.001$. Standard errors are given in parentheses. Dotted arrows represent proposed paths from control variables, but later excluded in model estimation

Figure 1.
A structural model explaining older adults' intention to continue working in older age, with SEM results incorporated

households were chosen using census data from all parts of Taiwan: northwest (the most developed industrial region), northeast (the well-preserved rural region), and south (a mixed industrial and agricultural region). Trained interviewers (students of social work, psychology, and community health) conducted home visits to interview one residing older person aged above 60 years from each selected household (in cases of more than one eligible participants, random selections were made). The overall response rate was 86.7 percent.

The sample ($N = 289$) consisted of 145 men and 139 women, with a mean age of 67.08 years ($SD = 6.60$). About half (51.9 percent) of our participants had some elementary school education, with an average formal education of 11.14 years ($SD = 3.62$). Most of them (76.5 percent) lived with other family members, and were not working (including retired, 67.6 percent). For those who were working, over half (57.3 percent) were in managerial positions. A wide variety of occupations were represented in this sample, including commerce/service (29.9 percent), public sectors (27.8 percent), manufacturing (18.5 percent), and agriculture/fishing (16.5 percent).

Instruments

Attitudes towards aging. The “Older People Scale” (OPS, Lu and Kao, 2009) is the first standardized scale developed specifically for the Chinese people, assessing attitudes towards older people in general. A combined qualitative and quantitative approach was used to develop this scale. First, focused group discussions and individual in-depth interviews with adults of various ages were conducted to develop a grounded theory on Chinese people’s views and attitudes towards older people and aging. These views and attitudes were then phrased into scale items, incorporating relevant Chinese idioms. In the next stage of scale development strict psychometric procedures were followed to finalize scale items, and to establish preliminary reliability and validity of OPS (Lu and Kao, 2009, 2010). Though OPS is not translated or adapted from any English scales, convergent validity was established with an existing Western scale (Aging Semantic Differential, Polizzi and Millikin, 2002). Criterion validity was established when scores of OPS predicted intentions of a wide cross-section of the Taiwanese population to interact with older people in daily life situations (Lu and Kao, 2009), and when they predicted university students’ career choices concerning working for/with older people (Lu and Kao, 2010). Results from our two studies in the aging and work program have provided further construct validity evidence for the OPS: coworkers’ and managers’ OPS scores predicted their behavioral intentions regarding older workers (Lu, 2010b; Lu *et al.*, 2011). The only published study using OPS with a sample of community older adults’ corroborated its construct validity in predicting psychological well-being (Lu *et al.*, 2010). Being a new scale, OPS needs to accumulate more supporting evidence for its suitability in aging research, and this is under the way as more and more Taiwanese researchers and practitioners adopt the scale in their various programs.

The OPS uses the same set of items with the stem “In general, older people are . . .” for respondents of different ages. It is assumed that when responding to the same items, young and older adults may base their opinions on different information. Specifically, older respondents are more likely to draw information from their own aging experiences, thus scale scores may reflect their attitudes towards aging itself. Respondents endorse their opinions on 22 statements such as (older people being)

“Weak and illness-prone” (reversed score), “compassionate”, and “disengaged from the society” (reversed score) on a seven-point scale (1 = strongly disagree, 7 = strongly agree). A higher summation score indicated more positive attitudes towards aging. In the present study, internal consistency alpha was 0.90 for OPS.

Subjective norm. Three items were developed to assess participants’ perception of the social norm (encouraging continued employment of older adults) and their willingness to conform to the norm. These items are:

- (1) Do you perceive that the government encourages the employment of older adults?
- (2) Does your family support your continued working in the older age?
- (3) Do you think that the employment of older adults should be encouraged?

Respondents answered with a forced choice format (1 = yes, 0 = no). Exploratory factor analysis revealed that only one factor (Eigenvalue = 5.60) could be extracted accounting for 79.12 percent of the total variance. All three items loaded on this single factor ranging from 0.65 - 0.79. Thus, an aggregated score was used to indicate subjective norm regarding the continued employment of older people. In the present study, internal consistency alpha was 0.67 for the scale.

Personal experiences. Four items were adopted to assess participants’ personal experiences with non-older people in general social contexts (Lu and Kao, 2010). Respondents were asked to rate the quality of their interactions with non-older people in family and at work (in roles of supervisors, coworkers, and subordinates) (1 = very poor, 10 = very good). Exploratory factor analysis revealed that only one factor (Eigenvalue = 7.44) could be extracted accounting for 76.85 percent of the total variance. All four items loaded on this single factor ranging from 0.76 - 0.89. Thus, an aggregated score was used to indicate the quality of personal experiences with non-older people. In the present study, internal consistency alpha was 0.95 for the scale.

Intention to continue working in older age. Depending on respondents’ current employment statuses, they choose to answer one item assessing their intentions to continue working in older age. For those who were currently working, they answered “If things permit, will you continue working?” (1 = very unwilling, 7 = very willing). For those who were currently not working, they answered “If things permit, will you start looking for jobs again?” (the above rating scale). As our participants were all above age 60, their responses to either one format of the question would reflect their intentions to work in older age. Similar measures were used to assess behavioral intentions in previous studies of students’ career intentions (Lu and Kao, 2010), coworkers’ cooperating intentions (Lu, 2010b) and managers’ hiring intentions (Lu *et al.*, 2011), which were shown attributable to the general attitudes towards older people.

Control variables. Demographic characteristics such as sex (0 = male, 1 = female), age, education (converted to years of formal education), current employment status (0 = not working, 1 = working), and rank (0 = employee, 1 = manager) were recorded. Personal and spousal health (1 = very poor, 10 = very good), the need of caring for family members (1 = not at all, 10 = very much in need) were also rated. Finally, perceived employment prospects in older age were rated on two items: the ease of obtaining employment, and the ease of finding adequate jobs (1 = very difficult, 10 = very easy). An aggregated score was used to indicate the

projected employment prospects, and internal consistency alpha was 0.79 in the present study. It needs to be noted that throughout the questionnaire, we made it clear that “older people” or “older age” referred to those beyond 60.

Reasons for continued employment. Though not the focus of the present study, we did include an open-ended question inquiring about possible reasons for continued employment into older age, whether full-time or part-time. We too asked how much longer respondents intended to work. Information generated by these two questions was analyzed as supplementary to the hypothesis testing.

Results

Before testing the hypotheses, we computed Pearson correlations among all research variables. Table I reports correlation results along with scale means and standard deviations. Attitudes towards aging, subjective norm, and personal experiences all significantly correlated with the intention to continue working in older age. All relations were in the expected direction.

Among control variables, sex, age, current employment status, and personal health correlated with the intention to continue working in older age. Other variables such as education, rank, employment prospects, spouse health, and family members needing care did not correlate with the dependent variable.

We proceeded with testing the structural model using AMOS 5.0 applying the Maximum Likelihood technique. The initial model (all paths in Figure 1) was streamlined deleting non-significant paths as shown in Table I. Specifically, paths from education, rank, spouse health, and family members needing care to the intention to continue working in older age (shown as dotted arrows in Figure 1) were not included in the model testing, thus no path coefficient could be shown. We followed suggestions by Bentler (1990) and Raykov *et al.* (1991) regarding criteria for evaluating SEM models. Specifically, the fitness indices (GFI and AGFI) should be in the upper 0.90s, and residuals (RMSEA) need to be small (<0.08). Results for our modified model ($\chi^2 = 42.38$, $df = 16$, GFI = 0.96, AGFI = 0.92, RMSEA = 0.07) showed a good fit. All path coefficients shown in Figure 1 were statistically significant. Thus, our three hypotheses were all supported.

Regarding why they would continue working in older age, our participants gave as many reasons as they wanted. At the top of the list, it was “keeping intellectually active” (19.8 percent), followed by “keeping social contacts” (19.2 percent), “physically still able” (19.2 percent), “filling time” (18.2 percent), “economic gains” (12.80 percent), and “contributing expertise” (10.7 percent). The average age they would work for full-time jobs was 67.33 ($SD = 9.81$), and that for part-time jobs was 72.40 ($SD = 9.93$).

Discussion

From attitudes to intentions in aging and work

The main purpose of the present study was to explore the role of attitudinal factors as facilitators/barriers to the continued employment of older adults in a Taiwanese context, with special attention towards older people’s general attitudes towards aging. Continue working in older age may not only lead to better social integration and growth for older adults (Nakai *et al.*, 2011), but also ensure a more diverse workforce with greater depth of expertise for the society (Ross, 2010). Our results show that the

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Sex	1												
2. Age	-0.04	1											
3. Ed	-0.16**	-0.27***	1										
4. Emp	-0.09	-0.29***	0.22**	1									
5. Rank	-0.06	-0.13	-0.01	0.40***	1								
6. OPS	0.09	0.02	0.04	0.07**	0.04	1							
7. SN	0.03	-0.04	0.05	0.21**	0.15	0.14*	1						
8. PE	0.11	-0.17*	0.14	0.19*	0.15	0.31**	0.10	1					
9. Prosp	0.09	0.00	0.19***	0.05	-0.03	0.08	0.03	0.05	1				
10. PH	0.02	-0.15*	0.16**	0.21**	0.13	0.34***	0.17**	0.39***	0.07	1			
11. SH	0.11	-0.09	0.19***	0.15*	0.14	0.27***	0.20**	0.26**	0.15*	0.71***	1		
12. FC	-0.06	0.03	-0.02	-0.02	-0.11	0.02	-0.21**	0.01	0.02	-0.22***	-0.29***	1	
13. INT	-0.13*	-0.21**	0.10	0.47***	0.12	0.26***	0.29***	0.18*	-0.01	0.26***	0.12	-0.07	1
Scale Mean	0.49	67.08	11.14	0.33	0.47	4.95	0.39	8.44	2.10	7.17	6.98	4.18	4.03
SD	0.50	6.60	3.62	0.47	0.50	0.96	0.37	1.59	1.45	2.53	2.74	3.23	2.27
α	/	/	/	/	/	0.90	0.67	0.95	0.79	/	/	/	/

Notes: Sex: 0 = M, 1 = F; Ed = years of formal education; Emp: 0 = not working, 1 = working; Rank: 0 = employee, 1 = manager; OPS = attitudes towards aging; SN = subjective norm; PE = personal experiences with non-older people; Prosp = employment prospects; PH = personal health; SH = spouse health; FC = family members needing care; INT = intention to continue working in older age; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table I.
Intercorrelations among
main research variables

TRA (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) is a useful framework to explain older adults' intentions to continue working in older age. As predicted, our structural modeling analysis revealed that both attitudes towards aging held by older people themselves and subjective norm regarding the encouragement of employment of older adults contributed to behavioral intentions to continue working beyond 60 (the marker for older age in Taiwan). In addition, the contact hypothesis (Amir, 1976), originally developed for explaining intergroup conflict and resolution, was also applicable in the context of employment intentions of older adults, through fostering better self-images or more positive attitudes toward aging.

One of the contributions of the present study is to introduce social psychological theoretical models (e.g. TRA) to inspire and organize research of employment issues in older age, which has so far been speculative and unsystematic in Taiwan. To compliment existing and ongoing discussions on macro-level factors such as industrial restructuring (H.S. Wu, 2006; Y.S. Wu, 2002) and demographical factors such as sex and education (Lu, 2010a), our present results have extended the list of psychosocial facilitators/barriers to the employment of older workers to include general attitudes towards aging, perceived social norm, and personal experiences with non-older people. The present study was part of a concerted research effort, first of its kind in Taiwan, to look at attitudinal factors influencing employment issues in older age. Two other studies in the series have shown that coworkers' and managers' attitudes towards older people impact on their intentions to work with or hire older people (Lu, 2010b; Lu *et al.*, 2011). We have now completed the trilogy by showing that older adults' own attitudes towards aging may be critical to their decisions to continue working in older age. In other words, things being equal, it is those who with better self-images or more positive outlooks towards aging are more incline to continue working in older age. While creating an age-friendly employment environment is prerequisite to working in older age, the final call remains with the individual and is largely dependent upon his/her attitudes towards aging, i.e. what older people are and should do.

Diverse reasons for continuing to work in older age in Taiwan

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). As already noted, older adults seeking jobs are not a homogeneous group (Nakai *et al.*, 2011). Many Taiwanese older adults opt for continued employment due to financial needs (Lu, 2010a), reflecting the changing social realities: older parents 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 and Chen, 2002). However, with the better-educated cohort of older adults (those born in the 1950's and growing up with the rising of economy) hitting the job market, they may be pushed more by non-monetary motives. Similar to their counterparts in the US (Nakai *et al.*, 2011), better educated older adults in Taiwan may be motivated by desires for continued social contacts and learning opportunities through employment. With average educational attainment at about high school level (11.14 years of formal education), our present sample fitted this profile of being better educated. Indeed, the reasons they gave for continue to work were mostly non-financial, and they intended to work well into the 60s (for full-time jobs) and 70s (for part-time jobs). Thus, to attract and encourage these non-money driven older

adults to stay in or re-enter the labor market, public policies and managerial practices need to focus more on psychosocial factors rather than purely monetary incentives.

Organizational and individual career implications

Taken together, our results have important implications for organizations and individuals. At the organizational level, education programs may be incorporated into training regimes, to bring down attitudinal barriers (ageism) at work, thereby more successfully retain mature workers and help them to realize the best of their expertise and experiences. As found in the present study, daily experiences in interacting with non-older people also helped to foster more conducive attitudes towards continued employment, organizations' every effort in fostering high quality interactions between different age groups and promoting an age-friendly work environment will pay off in the form of better retention of mature workers.

At the 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. Fostering a positive outlook for aging and maintaining a good self-image will help older adults to commit to continued employment as an effective tool of social integration (Ginn and Fast, 2006).

Limitations and suggestions for future research

The present study has certain limitations. First, the study design was cross-sectional, thus no causal conclusions are legitimate. Although our hypotheses were derived from well-established theories (e.g. TRA and contact hypothesis), we cannot rule out the likelihood of alternative explanations outside of these models. Furthermore, we adopted TRA as the guiding framework for our research program on aging and work, while some researchers argue that the more recent theory of planned behavior (TPB, Ajzen, 1991) is superior because it includes perceived behavioral control. This can be a direction for future research, as with societal change in the direction of favoring individuation, Chinese adults may exercise more personal control and choices in deciding to continue their employment in the older age.

Second, our data were gathered using structured questionnaires. Future studies may consider employing qualitative methods to explore in more detail the decision-making process of older adults, so that a fuller and richer understanding of the psychological mechanism can be revealed. Finally, the present study did not include views from families of older adults, thus family dynamism cannot be probed. Different informants should be approached in future studies to construct a more complete picture of the employment circumstances facing older people.

Despite these limitations, the present study along with the other two in the series has highlighted the importance of attitudes as facilitators/barriers in the employment of older adults. These concerted efforts have underlined the realities and challenges of an ageing society and called for greater attention to the employment plight of older workers. The unique circumstances facing older adults and their psychosocial needs/desires should be systematically examined and upon which public policies and organizational practices should be crafted to encourage continued employment of older adults, to the mutual benefits of the society, organizations, and individuals.

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