Conceptualising the Meaning of Working for Singaporean Graduates aligned with 21st century Economic and Social Policy: "Market, Meaning & Me"

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ABSTRACT: *We conceptualise the meaning of working for Singaporean university graduates aligned to contemporary economic and social policy that anticipates a changing future of work and society. Using data from 254 Singapore undergraduates, we report an early effort to develop self-report scales measuring more contemporary (1) market-oriented/happenstance attitude to employment, and (2) intrinsic, non-economic attitudes to working, that are contrasted with more traditional (3) qualification/expertise-based attitudes to employment. Our new concepts/measures are independent of career attitudes, with the first two measures relating to protean/boundaryless career attitudes and employability and the last measure relates more to low organizational mobility preference. We discuss our research in context of ongoing employment policy transformations and social change, implications for graduate employability, and ongoing research directions.*

Keywords: Meaning of Working; Employment Policy; Graduate Employability; Future of Work; Protean and Boundaryless Career attitudes; Scale development.

INTRODUCTION

Since Morse and Weiss' (1955) use of the lottery question "Would you work if you won the lottery?" to examine the functions and meaning of work (see also Highhouse, Zickar & Yankelevich, 2010), vocational psychologists have sought different ways to study the meaning of working (MOW). Such research is considered central to work and organizational psychology because it affects individual well-being (cf. Di Fabio and Blustein, 2016; Rosso, Dekas, & Wrzesniewski, 2010; Ward and King, 2017) and persists in international, longitudinal surveys (e.g., MOW-International Research Team, 1987; European Values Survey, 2022; World Values Survey, 2022) to capture evolving meanings of working across time and place (cf. Ruiz-Quintanilla and Wilpert, 1991). Indeed, as attitudinal objects, "work" and "employment" are cultural concepts shaped by history and location.

Since the 1970s, academic interest in the careers field has been directed towards more self-driven, flexible, and opportunistic career frameworks including protean and boundaryless career forms (Arthur, 1994; Arthur and Rousseau, 1996; Hall, 1976, 2002, 2004). Corresponding attitude measures have been developed (e.g., Briscoe, Hall, & DeMuth's (2006) protean career and boundaryless career attitudes scales and Wiernik and Kostal's (2019) protean and boundaryless career orientation, PCBO). These contrast markedly with more traditional organization-centred careers characterized by greater job security and hierarchical advancement – for example, as measured by Briscoe et al.'s (2006) low organizational mobility preference scale.

While these "New Careers" (Arthur, Inkson, & Pringle, 1999) have not entirely replaced traditional organizational ones (e.g., Dries and Verbruggen, 2012; Rodrigues and Guest, 2010), they accentuate that "career" as an attitudinal object is not the same as "employment" or "having a job". Bellah, Madsen, Sullivan, Swidler, & Tipton (1985) distinguished three different ways in which work is subjectively experienced: as a job (or "employment"), a career, or a calling – a distinction which Wrzesniewski, McCauley, Rozin, & Schwartz (1997) established empirically. A calling entails intrinsic enjoyment and meaning beyond the instrumental benefits of having a job (Berg, Grant, & Johnson, 2010). Inherent to "career" is a life span, unfolding (cf. Super, 1957, 1990; Arthur and Lawrence, 1984) perspective that working – whether paid or unpaid – lacks. While individuals may value having careers, employment policy which today shapes work in society is primarily concerned with employment and jobs from a macro-economic "future of work" perspective.

Today, the study of work attitudes still lacks measures of the qualitatively different nature of a historically evolving attitudinl object: Employment. This gap is especially apparent as fundamental economic and digital transformations exacerbate uncertainty around the future of work. How are attitudes to employment and working related to well-established career attitudes like PBCO? Are new and traditional employment attitudes independent of the intrinsic work attitudes associated with a calling? Do economic policy-desired attitudes to employment relate to individuals' career self-management and employability? How do they relate to social policy concerns around working?

Policy Concerns & Need for Contemporary measures of Attitudes to Working

Work and employment are ultimately socio-economic activities, experienced individually and locally (cf. Fouad, Liu, Cotter, & Gray-Schmedlin, 2014). Since the last century, work as experienced and understood by individuals is shaped by employment policy: "a diverse set of programs and regulations that seek to improve a population's employment experience" (Schulze-Cleven, 2011). At city, regional, and national levels such policies seek to anticipate macro-economic changes to enhance economic performance and maximize participation of the population in the workforce. Today, many nations develop and align their employment policies to economic groupings and international conventions such as the Organization for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO).

In the 1990s, the OECD called for greater labor market flexibility and attention to youth unemployment including concerns with graduate employability, over-education and skills under-utilization (e.g., Smith, 2017; Watts, 2008). In 2004, the OECD advocated reforming national career guidance systems to integrate efforts from education providers with those of public and private employment services, alongside community-wide initiatives. The goals: Sustainable employment (i.e., having work to do) and employability (i.e., readiness for future work opportunities). Beyond focusing on the role of institutions, such reports call for fundamental changes to education, employment, and workforce development policies will require workers to adopt new attitudes towards employment and to abandon past, specific, traditional beliefs that may become embedded in local culture.

Separately, social policy concerns also imply the need for shifting attitudes towards work. For example, as people live longer, policy makers seek ways to encourage senior citizens' active involvement in society (Bussolo, Koettl, & Sinnott, 2015; Giles, Wang, & Cai, 2011). This can include individuals adopting more intrinsic work attitudes (consistent with participation in unpaid volunteer work) alongside paid work into retirement.

Conceptualizing 21st Century Meanings of Working: "Market, Meaning & Me"

In searching for ways to measure and monitor shifts from traditional to new employment attitudes, we reviewed the literature on measures of work and career attitudes and observed gaps between current economic employment policy concerns, the study of work attitudes, career attitudes, and career guidance theory and practice.

Contemporary "market" versus traditional ("me-focussed") attitudes to employment. The OECD et al. (2016) report highlights how the pace and scale of globalization, technological change, innovation, environmental change and demographic trends are affecting work. To conceptualize the kind of attitudes to employment needed by future workers to cope with the ensuing change and uncertainty, we drew on Mitchell, Levin, & Krumboltz's (1999) concept of "planned happenstance" from career guidance literature (Krumboltz, 2009; Kim et al., 2014; Kim, Rhee, Ha, Yang, & Lee, 2016). The core idea is that career decisions are affected by unplanned or unexpected events in the external environment that occur by happenstance. Rather than regard such events positively or negatively, the theory calls on individuals to frame such chance events as career opportunities via five

behavioral “skills”: Curiosity (exploring new learning opportunities), Persistence (exerting effort in the face of setbacks), Flexibility (change plans to cope with changing circumstances), Optimism (viewing new opportunities as possible and attainable) and Risk Taking (taking action in the face of uncertain outcomes). In developing our measure we extended these ideas by consideration of implicit calls by economic policy makers (supported by recent studies) for more market-oriented or “entrepreneurial” (cf. Uy, Chan, Sam, Ho, & Chernyshenko, 2015) career mindsets.

While market-oriented attitudes emphasise flexibility, traditional approaches call for matching a person to a job – “take me as I am.” Career guidance was focused more on helping “me” find the right job – one which matched my qualifications, experience, and expertise. Policymakers are calling for a shift away from such a self-focused qualification/expertise-based orientation to employment (e.g., Davie, 2013; 2014). However, current policy concerns with skills-mismatch (cf. Handel, 2008) and over-education (cf. McGuinness, 2006) indicate the continued relevance of measuring these traditional “me”-oriented attitudes. During this time of transition, individuals may concurrently hold both new (“market”) and traditional (“me”) attitudes to employment, and we therefore hypothesize:

Hypothesis 1: Market-oriented “happenstance” attitude to employment is a distinguishable dimension from “me-focussed”, qualification/expertise-based attitude to employment.

Instrumental versus intrinsic “meaning” of working.

The study of work attitudes has established a distinction between instrumental (or transactionally-motivated) versus intrinsic attitudes to working (e.g., Arvey, Harpaz, & Liao, 2004; Snir & Harpaz, 2009; Warr, 1982, 2008). While trends identified in the previous paragraphs are driving the need for new employment attitudes, we also note their relevance to the meaning of work. Unpaid volunteer work was recognised as work by the ILO in 2011, and United Nations initiatives promoting life-long life-wide learning (cf. Belanger, 2015; Reischmann, 2014; Németh, 2015) increasingly highlight the importance of intrinsic motivational attitudes toward work over a lifetime, beyond just paid employment. We therefore adapted the classic “lottery” question and referred to unpaid and volunteer work to conceptualize intrinsic, non-economic work attitudes. Recognizing the shared future-oriented policy-driven nature of intrinsic non-economic work attitude and market-oriented attitude to employment, we hypothesized:

Hypothesis 2a: Intrinsic, non-economic work attitude is a distinguishable dimension from market-oriented "happenstance" and "me-focussed", qualification/expertise-based attitudes.

Hypothesis 2b: Intrinsic, non-economic work attitude is positively associated with market-oriented/happenstance attitude to employment.

How do market-oriented/happenstance and traditional qualification/ expertise-based attitude to employments relate to corresponding "career" mindsets? "Employment" and "careers" are different concepts. Market-oriented/happenstance attitude to employment has career analogues in protean career attitude and boundaryless mindset while traditional qualification/expertise-based attitude to employment has analogues in low organizational mobility preference. We hypothesized:

Hypothesis 3a: Market-oriented "happenstance" attitude to employment is positively correlated with protean career attitude and boundaryless mindset; and,

Hypothesis 3b: Traditional "me-focussed" qualification/expertise-based attitude to employment is positively correlated with low organizational mobility preference.

Focal Research Context: Graduate Employability amidst Economic Uncertainty

Graduate employability concerns the economic role of graduates and of universities to equip them for the labor market. Emerging as a public policy concern in the U.K. during the 1990s, graduate employability is now a central theme intersecting higher education and economic policy in many other countries (Clarke, 2018; Tomlinson and Holmes, 2017), relating to concerns with youth employment, overeducation and labor market-skills mismatch. This policy area draws interdisciplinary insights from economics, education, sociology and psychology (e.g., Donald, Baruch & Ashleigh, 2017; Rothwell and Rothwell, 2017) and is one of drivers for the employment policy shifts described above.

Graduate employability is also a significant concern in the wake of the COVID-19 pandemic. On March 6th the ILO (2020a) forecasted that global unemployment would increase by 13 million with the majority (7.4 million) of job losses in high-income countries. Youth were identified as a vulnerable group in this crisis. Employability has been operationalized in many different ways ranging from objective, economic measures to subjective, psychological ones. A psychological approach to employability is the construct of self-perceived employability, defined by Berntson and Marklund, (2007) as "the individual's perception of his or her possibilities of getting new employment" (p. 281).

Writing on graduate employability, Rothwell and Rothwell (2017) defined self-perceived employability as: "how individual graduates can make an evaluation of their own career potential going forward" (p. 42). Today, self-perceived employability continues to feature in graduate employability research (e.g., Donald, Baruch, & Ashleigh, 2017; Donald, Ashleigh, & Baruch, 2018; Álvarez-González, López-Miguens, & Caballero, 2017; Jackson and Wilton, 2017; Nicholas, 2018). Self-perceived employability has also been shown to relate to employees' well-being, mediated by job insecurity in workplace settings (e.g., de Cuyper, Bernhard-Oettel, Berntson, Witte, & Alarco, 2008). Without prior research on market-oriented/happenstance attitude to employment, we referred to de Vos and Soens (2008) who had previously reported protean career attitude as an antecedent of self-perceived employability. To the extent that market-oriented/happenstance attitude to employment could be positively correlated with new career orientations such as protean career attitude and boundaryless attitude (i.e., Hypothesis 3a), we likewise hypothesized:

Hypothesis 4: Market-oriented "happenstance" attitude to employment and protean career attitude are positively correlated with self-perceived employability.

Validating "Life-wide" Work attitudes Among Student Volunteers

As mentioned, contemporary policy today also recognises unpaid volunteer work as work. The inclusion of intrinsic, non-economic work attitudes in our new conceptualisation of MOW attempts to recognise this "life-wide" view of working that goes beyond instrumental economic motivations, as reflected in Morse and Weiss' (1955) Lottery Question and related Work Centrality measures (e.g., by Arvey et al., 2004; Snir and Harpaz, 2009; Warr, 1982, 2008). Given that our participants would be recruited from a student volunteer organization, there would be restricted variance in their current volunteering activities. For this reason we chose to use future volunteering intentions (post-university) and volunteer identity as indicators of likely future engagement in life-wide non-economic work once students had entered the workforce.

Hypothesis 5: Intrinsic/non-economic work attitudes would be most strongly correlated with future intentions to volunteer beyond university studies and strength of volunteer identity.

METHOD

Participants and procedures

280 university students were recruited from a large comprehensive university in Singapore. Invitations were emailed to the university's welfare services club where students engage in volunteering activities for various social welfare organizations and causes. Online survey data collection was conducted in April and May 2020 with Institutional Review Board approval and informed consent. All participants were compensated S$8. Upon data screening, 26 cases were discarded as they failed attention checks resulting in a final sample of 254 usable cases (33% male, 67% female; age *M* = 22.49 years, *SD* = 1.67 years).

Measures

Market-oriented "happenstance" attitude to employment, qualification/expertise-based attitude to employment and intrinsic, non-economic work attitude. We developed an initial item pool comprising eight Likert-type market-oriented/happenstance items reflecting the five aspects of happenstance theory, market orientation and value creation; 12 "traditional" items reflecting what were commonly-held attitudes at least in the Singaporean workforce; and, four intrinsic, non-economic work attitude items with three reflecting attitudes towards unpaid work, and one adapted from the classic lottery question. Respondents indicated on a 5-point scale (1= *little or no*, 5 = *to a great*) the extent they felt statements were true. Using MPLUS version 8.8 (Muthén & Muthén, 1998–2012), we performed a series of exploratory factor analyses using maximum likelihood estimation with robust standard errors (MLR) extraction and Geomin oblique rotation. Parallel analysis showed that three factors accounted for most of the variance in the initial item pool with acceptable model fit, $\chi^2(207) = 388.56$; CFI = .82, SRMR = .05, RMSEA = .06). Iteratively, we eliminated some items that either loaded more on an unintended factor or cross-loaded with other factors while considering factor interpretability. The final items for the three factors with item loadings are shown in Table 1. An initial confirmatory factor analysis (CFA) showed that the 16-item 3-factor model provided acceptable fit to the data, $\chi^2(101) = 211.53$; CFI = .83; SRMR = .08; RMSEA = .07), but this CFA will need further cross validation with another sample. Cronbach's alpha scale reliabilities were acceptable: 7-item market-oriented/ happenstance attitude to employment $\alpha = .72$, 5-item qualification/expertise-based attitude to employment $\alpha = .71$, and 4-item intrinsic, non-economic work attitude $\alpha = .67$ (see Table 2). Scale scores were computed by averaging responses to items within each scale.

Protean career attitude, boundaryless mindset and low organizational mobility preference. Chan et al.'s (2012) adaptation of Briscoe et al.'s (2006) scales was used as these were previously validated with Singaporean students. Respondents indicated on a 5-point scale (1 = *little or no*, 5 = *to a great*) the extent they felt statements were true. Sample items were: "Ultimately, I will only depend upon myself to move my career forward" (protean career attitude; 7 items); "I would enjoy job assignments that require me to work outside of the organization" (boundaryless mindset; 4 items); "I would like the predictability that comes with working continuously for the same organization" (low organizational mobility preference; 5 items). CFA showed that a 3-factor model provided good fit to the data, $\chi^2(101) = 160.46$; CFI = .92, SRMR = .06, RMSEA = .05. Scale reliabilities (see Table 2) were acceptable. Scale scores were computed by averaging responses to items within each scale.

Self-perceived employability. Berntson, Näswall, & Sverke's (2008) 6-item measure was used. Respondents indicated on a 5-point Likert scale their agreement/disagreement with statements about their perceived skills, experience, network, personal traits, and knowledge of the labour market (e.g., ''I know of other organizations / companies where I could get new work''; 1 = *strongly disagree*, 5 = *strongly agree*). While our past research had indicated that a unidimensional factor fitted the 6-item scale well, parallel analysis with the present data indicated that two, correlated factors (*r(F1, F2)* = .48, $\chi^2(4) = 4.85$; CFI = .99; SRMR = .02; RMSEA = .03;) provided a better fit than a single-factor model ($\chi^2(9) = 53.85$; CFI = .85, SRMR = .06; RMSEA = .14), $\chi^2(5) = 47.44$, $p < .001$. Examination of items showed that the two factors reflected a well-established distinction between personal human capital-based versus external, market-based self-perceived employability (cf. Berntson et al., 2006; Forrier, Verbruggen & de Cuyper, 2015; McQuaid & Lindsay, 2005). CFA showed that the 2-factor model provided good fit to the data, $\chi^2(8) = 13.24$; CFI = .98; SRMR = .03; RMSEA = .05. We therefore computed self-perceived employability as follows: 4-item personal qualities-related self-perceived employability, $\alpha = .70$ ("I would have no problem in getting a job"; "I have a contact network that I can use to get a job"; "My personal qualities make it easy for me to get a job"); 2-item market-related self-perceived employability, $\alpha = .75$ ("My experience is in demand in the labour market", "My competence is sought-after in the labour market"); and 6-item overall self-perceived employability, $\alpha = .77$. Scale scores were computed by averaging responses to items within each scale.

Future intentions to volunteer beyond university studies and strength of volunteer identity. To measure strength of volunteer motivation beyond university studies and causes, we developed a Future Intentions to Volunteer beyond University Studies Scale with 3 items as follows: "I will continue volunteering even after I graduate and start working full time", "I intend to volunteer as actively as I can for the rest of my life", and "In future I will volunteer for as many different causes that interest me as I can"; and, a Strength of Volunteer Identity Scale with 4 items as follows: "Volunteering is in my blood, I am a volunteer for life", "Volunteering is an important part of who I am", "I love volunteering whenever I can" and "Volunteering is my passion". Respondents indicated on a 5-point Likert scale the importance of each statement (1 = v*ery unimportant*, 5 = v*ery important*). CFA showed that a 2-factor model provided adequate fit to the data, $\chi^2(13) = 23.60$; CFI = .98; SRMR = .04; RMSEA = .06, with both measures correlated at .67. Scale reliabilities (see Table 2) were good at .79 and .85 respectively. Scale scores were computed by averaging responses to items within each scale.

RESULTS

Table 2 summarizes the key item and scale statistics and their inter-correlations for this study. Our iterative, exploratory factor analysis-driven scale development process showed that market-oriented/happenstance and "me-focussed" qualification/expertise-based attitudes to employment are distinct factors. Table 2 also shows that these scales are uncorrelated at $r(252) = .03$ (*n.s.*), thus supporting Hypothesis 1. Similarly, the exploratory factor analysis revealed that market-oriented/happenstance and traditional "me-focussed" qualification/expertise-based attitudes to employment were both distinguishable from intrinsic, non-economic work attitude, which supports Hypothesis 2a and the idea that individuals may concurrently hold both future/desired and traditional attitudes during a period of work and employment reform. We observed market-oriented/happenstance attitude to employment and intrinsic, non-economic work attitude significantly positively correlated at $r(252) = .40$ ($p < .001$), which supports Hypothesis 2b. This suggests that market-oriented/happenstance attitude to employment and intrinsic, non-economic work attitude are both consistent with policies aimed at maintaining future employability; both may be independently held alongside "me-focussed" qualification/expertise-based attitude to employment.

From Table 2, we observe that market-oriented/happenstance attitude to employment is

positively correlated with protean career attitude at r*(252)* = .32 ($p < .001$) and boundaryless mindset at r*(252)* = .44 ($p < .001$) which supports Hypothesis 3a. We also observe intrinsic, non-economic work attitude having a significant but slightly weaker positive correlation with protean career attitude at r*(252)* = .18 ($p < .005$), and with boundaryless mindset at *r(252)* = .25 ($p < .001$). Conversely, "me-focussed" qualification/expertise-based attitude to employment is only positively correlated with low organizational mobility preference at *r(252)* = .43 (p < .001) which supports Hypothesis 3b. Though conceptually distinct, both contemporary work attitudes (i.e., market-oriented/happenstance and intrinsic work attitudes) are positively related to similarly contemporary career attitudes like protean and boundaryless mindset. Likewise, individuals with traditional "me-focussed" employment attitude also tend to hold traditional career attitudes, i.e., low organizational mobility preference. This again reinforced the view that individuals may concurrently hold both contemporary and traditional attitudes during a period of employment reform and a crisis.

From Table 2, we observe that market-oriented/happenstance attitude to employment is positively correlated with personal self-perceived employability (*r(252)* = .25, $p < .001$), market-based self-perceived employability (*r(252)* = .29, $p < .001$) and overall self-perceived employability (*r(252)* = .31, $p < .001$), providing partial support for Hypothesis 4. Interestingly, we also observe that intrinsic, non-economic work attitude has slightly weaker but positive correlations with personal self-perceived employability (*r(252)* = .18, $p < .005$), market-based self-perceived employability (*r(252)* = .21, $p = .001$) and overall self-perceived employability (*r(252)* = .22, $p < .001$). Traditional qualification/expertise-based attitude is not correlated with self-perceived employability. While low organizational mobility preference is unrelated to self-perceived employability, both protean career attitude and boundaryless mindset are positively related to self-perceived employability, providing further support for Hypothesis 4. Market-oriented/happenstance attitude to employment and intrinsic, non-economic work attitude are each also positively correlated with protean career attitude and boundaryless mindset. Together, these observations suggest that progressive attitudes to employment and career are associated with self-perceived employability; traditional attitudes are not. This supports policy-led initiatives to encourage such new attitudes to employment and careers.

Finally, to validate the distinction of social policy-motivated intrinsic work attitudes from

economically driven market-oriented/happenstance employment attitude, we observe from Table 2 that Intrinsic Work Attitude is most highly correlated with both Future Intentions to Volunteer ($r(252) = .35$, $p < .001$) and Strength of Volunteer Identity ($r(252) = .32$, $p < .001$) among our student volunteer participants compared to market-based and me-focussed employment attitudes. This supports Hypothesis 5 and provides initial discriminant validation of socially-driven intrinsic work attitudes from more economically-driven employment attitudes.

DISCUSSION

Our research contributes to continuing interest in the meaning of working. Specifically, we provide a contemporary focus on attitudes to employment and working in manner relevant to both social and economic policy concerns that shape the future of working in a society moving away from past cultural assumptions. We show how a contemporary approach to working may be conceptualized in terms of: (1) the external market or environmental opportunities, needs and demands, (2) subjective and intrinsic meaning of working itself, and (3) one's identity ("me") that reflects both agentic elements like one's interests, aspirations, expertise and qualifications in context of socio-cultural influences that may be both local and traditional. Our initial empirical effort indicates that pre-workforce undergraduate students in Singapore are able to hold both traditional and contemporary attitudes independently during current conditions of employment policy transformation. Our research reinforces Bellah et al. (1985) and Wrzesniewski et al.'s (1997) reminders that careers are not the same as "employment" or "having a job", which in turn is critical in the conceptualization of work attitudes as they pertain to either perspective of work. By incorporating elements of happenstance theory into our new measure of work, we have attempted to bridge applied psychological interests with contemporary career guidance theory.

Our research highlights the important role of future-oriented employment policy as a societal factor that today shapes individual attitudes toward employment and working while implicitly expecting individuals to abandon or de-emphasize past culturally embedded attitudes towards working. It is important to constantly review and revise the measurement of work attitudes to stay locally relevant, yet anticipate the future of working. While our market-oriented/happenstance and intrinsic work attitude scales were theoretically justified, what constitutes especially "traditional" work

attitudes should be locally relevant. It is thus vital to establish the measurement equivalence and content validity of any measure of “traditional” attitude to employment (including ours) before using these in other countries. Likewise, measures of the meaning of working may need to be updated to include new life domains that were non-existent in the last century (e.g., virtual work life in social media), yet applied carefully at different locations.

For now, our research addresses the concerns of countries like Singapore (e.g., Tan, 2017, Woo, 2018) that anticipate a vastly different future of working in social and economic life. In Singapore at least, it appears that today’s traditional attitudes toward employment are likely rooted in the industrial age that shaped assumptions of linear, sequential relations between formal education, qualifications and employment, e.g., "front loading" education/learning and skills acquisition with an expectation of lifetime employment returns on this investment, and, an assumed fit between relatively static job and person. Such assumptions are no longer tenable given the many factors forcing fundamental changes in the nature of work. Looking ahead, individuals may need more “happenstance” orientations towards their work as they anticipate the uncertainties and unknowns of a rapidly changing world as suggested by career guidance theory. From an economic (personal survival and competitiveness) perspective, individuals may also need to adopt more market-oriented, value-creating perspective toward their work beyond a purely agentic view (cf. Tams & Arthur, 2010). Perhaps there is scope to further expand the concept of career entrepreneurship (cf. Korotov, Khapova & Arthur, 2010) beyond its investment emphasis to also focus on external market demand and opportunity-seeking or creating aspects (e.g., Arthur, Khapova, & Richardson, 2016). Distinguishing economically-driven market-oriented/happenstance from socially-motivated intrinsic, non-economic work attitude also provides a more balanced vision of working in society for individuals where one works not only to meet immediate economic needs but where work is intrinsically meaningful when unpaid and volunteered.

This study was conducted in Singapore and with university students, recruited mostly via the student welfare services club during a very unique and specific period in this country’s history marked by policy driven reforms, and an impeding global pandemic. Any inferences from this study should consider these limitations before generalizing to other contexts. More data is now being collected from different samples to further refine and validate our measures, and to establish generalizability.

REFERENCES

Álvarez-González, P., López-Miguens, M.J. and Caballero, G. (2017). Perceived employability in university students: developing an integrated model. *Career Development International*, 22(3), 280-299. https://doi.org/10.1108/CDI-08-2016-0135

Arthur, M. (1994). The boundaryless career: A new perspective for organizational inquiry. *Journal of Organizational Behavior*, 15, 295–306. https://doi.org/10.1002/job.4030150402

Arthur, M., Inkson, K., & Pringle, J. (1999). *The new careers: Individual action and economic change*. Thousand Oaks, CA: Sage.

Arthur, M. B., Khapova, S. N., & Richardson, J. (2016). *An Intelligent Career: Taking ownership of your work and your life*. Oxford University Press.

Arthur, M., & Lawrence, B. (1984). Perspectives on environment and career: An introduction. *Journal of Occupational Behavior*, 5, 1–8. https://doi.org/10.1002/job.4030050102

Arthur, M. B., & Rousseau, D. M. (1996). *The boundaryless career: A new employment principle for a new organizational era*. New York: Oxford University Press.

Arvey, R. D., Harpaz, I., & Liao, H. (2004). Work centrality and post-award work behavior of lottery winners. *The Journal of Psychology*, 138(5), 404-420. https://doi.org/10.3200/JRLP.138.5.404-420

Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life*. New York: Harper & Row.

Belanger, P. (2015). *Self construction and social transformation*. UNESCO: UNESCO Institute for Lifelong Learning. Retrieved from https://uil.unesco.org/lifelong-learning/self-construction-and-social-transformation-lifelong-lifewide-and-life-deep

Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science*, 21(5), 973–994. https://doi.org/10.1287/orsc.1090.0497

Berntson, E., & Marklund, S. (2007). The relationship between perceived employability and subsequent health. *Work & Stress*, 21(3), 279-292. https://doi.org/10.1080/02678370701659215

Berntson, E., Näswall, K., & Sverke, M. (2008). Investigating the relationship between employability and self-efficacy: A cross-lagged analysis. *European Journal of Work and Organizational Psychology*, 17(4), 413-425. https://doi.org/10.1080/13594320801969699

Berntson, E., Sverke, M., & Marklund, S. (2006). Predicting perceived employability: human capital or labor market opportunities? *Economic and Industrial Democracy*, 27(2), 223-244. https://doi.org/10.1177/0143831X06063098

Briscoe, J. P., Hall, D. T., & DeMuth, R. L. F. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*, 69, 30–47. https://doi.org/10.1016/j.jvb.2005.09.003

Bussolo, M., Koettl, J., & Sinnott, E. (2015). *Golden aging: Prospects for healthy, active, and prosperous aging in Europe and Central Asia*. (English). Europe and Central Asia Studies. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/647461467997250805/Golden-aging-prospects-for-healthy-active-and-prosperous-aging-in-Europe-and-Central-Asia

Chan, K. Y., Moon-ho, R. H., Chernyshenko, O. S., Bedford, O., Uy, M. A., Gomulya, D., & Phan, W. M. J. (2012). Entrepreneurship, professionalism, leadership: A framework and measure for understanding boundaryless careers. *Journal of Vocational Behavior*, 81(1), 73-88. https://doi.org/10.1016/j.jvb.2012.05.001

Clarke, M. (2018). Rethinking graduate employability: The role of capital, individual attributes and context. *Studies in Higher Education*, 43(11), 1923-1937. https://doi.org/10.1080/03075079.2017.1294152

Davie, S. (2013). Is a degree really all-important? *The Straits Times*, 18 May.

Davie, S. (2014). National Day rally 2014: will government agencies really place skills above degrees? *The Straits Times*, 17 August.

de Cuyper, N., Bernhard-Oettel, C., Berntson, E., Witte, H. D., & Alarco, B. (2008). Employability and employees' well-being: Mediation by job insecurity. *Applied Psychology*, 57(3), 488-509.

https://doi.org/10.1111/j.1464-0597.2008.00332.x
de Vos, A., & Soens, N. (2008). Protean attitude and career success: The mediating role of self-management. *Journal of Vocational Behavior*, 73(3), 449-456. https://doi.org/10.1016/j.jvb.2008.08.007
Di Fabio, A., & Blustein, D. L. (2016). From meaning of working to meaningful lives: The challenges of expanding decent work. *Frontiers in Psychology*, 7, 1119.
Donald, W. E., Ashleigh, M. J., & Baruch, Y. (2018). Students' perceptions of education and employability. *Career Development International*, 23(5), 513-540. https://doi.org/10.1108/CDI-09-2017-0171
Donald, W. E., Baruch, Y., & Ashleigh, M. (2017). Boundaryless and protean career orientation: A multitude of pathways to graduate employability. In M. Tomlinson (Eds.), *Graduate employability in context* (pp. 129-150). Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-57168-7_6
Dries, N., & Verbruggen, M. (2012). Fresh perspectives on the "new" career. *Journal of Vocational Behavior*, 82(2), 269-270. https://doi.org/10.1016/j.jvb.2011.11.001
European Values Study: 1981-2017. Website by Tilburg University. Retrieved July, 4, 2022, from https://europeanvaluesstudy.eu/
Fouad, N. A., Liu, J. P., Cotter, E. W., & Gray-Schmiedlin, I. (2014). The impact of economic perceptions on work-related decisions. *Journal of Career Assessment*, 22(2), 355-370. https://doi.org/10.1177/1069072713484559
Forrier, A., Verbruggen, M., & de Cuyper, N. (2015). Integrating different notions of employability in a dynamic chain: The relationship between job transitions, movement capital and perceived employability. *Journal of Vocational Behavior*, 89, 56-64. https://doi.org/10.1016/j.jvb.2015.04.007
Giles, J., Wang, D., & Cai, W. (2011). *The labor supply and retirement behavior of China's older workers and elderly in comparative perspective*. Washington, DC: D.C.: World Bank Group. https://doi.org/10.1596/1813-9450-5853
Hall, D. T. (1976). *Careers in organizations*. Pacific Palisades, CA: Goodyear.
Hall, D. T. (2002). *Careers in and out of organizations*. Thousand Oaks, CA: SAGE.
Hall, D. T. (2004). The protean career: A quarter-century journey. *Journal of Vocational Behavior*, 65, 1–13. https://doi.org/10.1016/j.jvb.2003.10.006
Handel, M. (2008). Skills mismatch. In V. N. Parrillo (Ed.), *Encyclopedia of social problems* (Vol. 1, pp. 856-857). Thousand Oaks, CA: SAGE Publications, Inc. https://doi.org/10.4135/9781412963930.n519
Highhouse, S., Zickar, M. J., & Yankelevich, M. (2010). Would you work if you won the lottery? Tracking changes in the American work ethic. *Journal of Applied Psychology*, 95(2), 349–357. https://doi.org/10.1037/a0018359
International Labor Organization (ILO; 2020a). *ILO Monitor: COVID-19 and the world of work* (1st ed.). Geneva, Switzerland: ILO. Retrieved July, 4, 2022 from https://www.ilo.org/global/about-the-ilo/WCMS_738753/lang--en/index.htm
Jackson, D., & Wilton, N. (2017). Perceived employability among undergraduates and the importance of career self-management, work experience and individual characteristics. *Higher Education Research & Development*, 36(4), 747-762. https://doi.org/10.1080/07294360.2016.1229270
Kim, B., Jung, S. H., Jang, S. H., Lee, B., Rhee, E., Cho, S. H., & Lee, S. M. (2014). Construction and initial validation of the Planned Happenstance Career Inventory. *The Career Development Quarterly*, 62(3), 239-253. https://doi.org/10.1002/j.2161-0045.2014.00082.x
Kim, B., Rhee, E., Ha, G., Yang, J., & Lee, S. M. (2016). Tolerance of uncertainty: Links to happenstance, career decision self-efficacy, and career satisfaction. *The Career Development Quarterly*, 64(2), 140-152. https://doi.org/10.1002/cdq.12047
Korotov, K., Khapova, S., & Arthur, M. (2010). Career entrepreneurship. *Organizational Dynamics*, 40(2), 127-135. https://doi.org/10.1016/j.orgdyn.2011.01.007
Krumboltz, J. D. (2009). The happenstance learning theory. *Journal of Career Assessment*, 17, 135–154. https://doi.org/10.1177/1069072708328861
McGuinness, S. (2006). Overeducation in the labour market. *Journal of Economic Surveys*, 20(3), 387–418. https://doi.org/10.1111/j.0950-0804.2006.00284.x

McQuaid, R.W., & Lindsay, C. (2005). The concept of employability. *Urban Studies*, 42(2), 197-219. https://doi.org/10.1080/0042098042000316100
Muthén, L. K., & Muthén, B. O. (1998–2012). *Mplus user's guide* (7th ed.). California: Muthén & Muthén.
Mitchell, K. E., Levin, S. A., & Krumboltz, J. D. (1999). Planned happenstance: Constructing unexpected career opportunities. *Journal of Counseling & Development*, 77, 115–124. https://doi.org/10.1002/j.1556-6676.1999.tb02431.x
Morse, N.L. and Weiss, R.S. (1955). The function and meaning of work and job. *American Sociological Review*, 20, 191-198.
MOW-International Research Team (1987). *The meaning of working*. London: Academic Press.
Németh B. (2015). Lifelong learning for all adults? A new concept for the united nations educational, scientific and cultural organization — Limits and opportunities for a changing intergovernmental organization. In M., Milana & T. Nesbit (Eds.), *Global perspectives on adult education and learning policy*. London: Palgrave Macmillan. https://doi.org/10.1057/9781137388254_12
Nicholas, J. M. (2018). Marketable selves: Making sense of employability as a liberal arts undergraduate. *Journal of Vocational Behavior*, 109, 1-13. https://doi.org/10.1016/j.jvb.2018.09.001
Organization for Economic Co-operation and Development (OECD; 2004). *Career guidance: A handbook for policy makers*. Paris: OECD. Retrieved July, 4, 2022 from https://www.oecd-ilibrary.org/employment/career-guidance_9789264015210-en
Organization for Economic Co-operation and Development (OECD) International Labour Organization (ILO); World Bank (IBRD); International Monetary Fund (IMF). (2016). *Enhancing employability: Report prepared for the G20 Employment Working Group*. Paris: OECD. Retrieved July, 4, 2022 from https://www.oecd.org/employment/emp/Enhancing-Employability-G20-Report-2016.pdf
Reischmann, J. (2014). Lifelong and Lifewide learning - A perspective. In: S. Charungkaittikul (ed.), *Lifelong education and lifelong learning in Thailand* (p. 286-309), Bangkok. Retrieved July, 4, 2022 from http://www.reischmannfam.de/lit/2014-Baifern.pdf
Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, 30, 91-127. https://doi.org/10.1016/j.riob.2010.09.001
Rodrigues, R. A. & Guest, D. (2010). Have careers become boundaryless? *Human Relations*, 63, 1157–75. https://doi.org/10.1177/0018726709354344
Rothwell, A., & Rothwell, F. (2017). Graduate employability: A critical oversight. In M. Tomlinson (ed.), *Graduate employability in context* (pp. 41-63). Palgrave Macmillan, London. https://doi.org/10.1057/978-1-137-57168-7_2
Ruiz-Quintanilla, S.A., and Wilpert, B. (1991). Are work meanings changing? *European Work and Organizational Psychology*, 1, 91-109. https://doi.org/10.1080/09602009108408515
Schulze-Cleven, T. (2011). Policy, employment. In B. Badie, D. Berg-Schlosser & L. Morlino (Eds.), *International Encyclopedia of Political Science* (p. 1885-1890). Thousand Oaks, CA: SAGE Publications, Inc. https://doi.org/10.4135/9781412959636.n438
Smith, C. (2017). Skill demands and developments in the advanced economies. In C. Warhurst, K. Mayhew, D. Finegold, & J. Buchanan (Eds.), *The Oxford handbook of skills and training* (pp. 491-508). Oxford, U.K.: Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199655366.013.23
Snir, R. & Harpaz, I. (2009). Cross-cultural differences concerning heavy work investment. *Cross-Cultural Research*, 43(4), 309-319. https://doi.org/10.1177/1069397109336988
Super, D. E. (1957). *The psychology of careers*. New York: Harper & Row.
Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown, L. Brooks, & Associates (Eds.), *Career choice and development: Applying contemporary theories to practice* (2nd ed., pp. 197–261). San Francisco, CA: Jossey-Bass.
Tams, S., & Arthur, M. B. (2010). New directions for boundaryless careers: Agency and interdependence in a changing world. *Journal of Organizational Behavior*, 31(5), 629-646. https://doi.org/10.1002/job.712

Tan, C. (2017). Lifelong learning through the SkillsFuture movement in Singapore: Challenges and prospects. *International Journal of Lifelong Education*, 36(3), 278-291. http://dx.doi.org/10.1080/02601370.2016.1241833

Tomlinson, M., & Holmes, L. (Eds.). (2016). *Graduate employability in context: Theory, research and debate*. Springer. https://doi.org/10.1057/978-1-137-57168-7

Uy, M. A., Chan, K. Y., Sam, Y. L., Ho, M. H. R., & Chernyshenko, O. S. (2015). Proactivity, adaptability and boundaryless career attitudes: The mediating role of entrepreneurial alertness. *Journal of Vocational Behavior*, 86, 115-123. https://doi.org/10.1016/j.jvb.2014.11.005

Ward, S. J., & King, L. A. (2017). Work and the good life: How work contributes to meaning in life. *Research in Organizational Behavior*, 37, 59-82. https://doi.org/10.1016/j.riob.2017.10.001

Warr, P.B. (1982). A national study of non-financial employment commitment. *Journal of Occupational Psychology*, 55, 297-312. https://doi.org/10.1111/j.2044-8325.1982.tb00103.x

Warr, P.B. (2008). Work values: Some demographic and cultural correlates. *Journal of Occupational and Organizational Psychology*, 81, 751-775. https://doi.org/10.1348/096317907X263638

Watts, A. G. (2008). Career guidance and public policy. In J. A. Athanasou. & R. van Esbroeck (Eds.), *International handbook of career guidance* (pp. 341-353). Netherlands: Springer. https://doi.org/10.1007/978-1-4020-6230-8_17

Wiernik, B. M., & Kostal, J. W. (2019). Protean and boundaryless career orientations: A critical review and meta-analysis. *Journal of Counseling Psychology*, 66(3), 280. https://doi.org/https://doi.org/10.1037/cou0000324

World Values Survey Association. Retrieved on July, 4, 2022 fromhttps://www.worldvaluessurvey.org/wvs.jsp

Woo, J. J. (2018). Educating the developmental state: policy integration and mechanism redesign in Singapore's SkillsFuture scheme. *Journal of Asian Public Policy*, 11(3), 267-284. https://doi.org/10.1080/17516234.2017.1368616

Wrzesniewski, A., McCauley, C., Rozin, P., & Schwartz, B. (1997). Jobs, careers, and callings: People's relations to their work. *Journal of Research in Personality*, 31(1), 21-33. https://doi.org/10.1006/jrpe.1997.21

Table 1
Items and Standardized item loadings of the new "Market, Meaning, and Me" scales.

Items	Factor loading 1	2	3
Factor 1: Market-oriented/Happenstance Attitude to Employment			
1. I am always curious to explore a totally different job just to see if I can make it there.	**.94**	.00	-.24
2. My working life is largely guided by my sense of what the market needs and what value I can provide to it.	**.61**	.27	-.01
3. I will take risks to try out something new so as to increase my chances of landing a good job.	**.48**	-.04	.06
4. I am the type who constantly consider many alternative career paths instead of sticking to one career path.	**.48**	-.28	.09
5. When faced with a situation where I might lose my job, I would work hard to re-invent myself by learning new skills to stay employed.	**.44**	.09	.14
6. If I stay stuck in my current profession or industry, I will lose the opportunities to create value in the future economy.	**.35**	.27	-.01
7. Even in an economic downturn, I can always see new opportunities to keep working and stay employed.	**.27**	-.03	.24
Factor 2: Qualification/Expertise-based Attitude to Employment			
1. I am <u>not</u> prepared to work in roles that are outside of my main area of expertise.	-.13	**.68**	-.01
2. I would only take on a job in another industry I am familiar with than to consider taking a new job in a different industry.	.01	**.60**	.13
3. I would probably avoid taking on job tasks and assignments that are outside my chosen area of expertise.	-.05	**.58**	.09
4. I mainly seek work opportunities that directly fit my skills and interests.	.03	**.50**	.16
5. The key to securing my dream job lies in achieving the right education qualifications.	.00	**.48**	.11
Factor 3: Intrinsic, Non-Economic Work Attitude			
1. I <u>do not</u> ever see myself fully retired from work and will keep working (e.g., doing unpaid volunteer work) even if I am financially secure.	-.01	.01	**.62**
2. I am the type who will gladly do unpaid, volunteer work even while having full-time paid work and employment.	.01	-.12	**.60**
3. Any work or job, including unpaid volunteer work, is better than having no work to do.	.06	.02	**.58**
4. I will continue working and **stay active** in society and the economy even if I won a huge lottery.	-.03	.00	**.51**

Note. N = 254. Values in bold represent the highest standardized factor loading for each item.

Table 2. Scale means, standard deviations, reliabilities and inter-scale correlations

Scale	*M*	*SD*	Mkt attitude	Qual' attitude	IWA	Protean Attitude	BM	Low OMP	Personal SPE	Market SPE	Overall SPE	Intent to Vol	Vol Identity
1. Market-oriented/ Happenstance attitude to Employment (Mkt Attitude)	3.40	0.55	(.72)										
2. Qualification/Expertise-based attitude to Employment (Qual' Attitude)	3.28	0.62	.03	(.71)									
3. Intrinsic, Non-Economic Work Attitude (IWA)	3.74	0.67	.40**	.07	(.67)								
4. Protean Career Attitude	3.83	0.49	.32**	.12	.18**	(.75)							
5. Boundaryless Mindset (BM)	3.59	0.68	.44**	-.03	.25**	.38**	(.80)						
6. Low Organizational Mobility Preference (Low OMP)	3.03	0.66	.10	.43**	-.01	.07	-.00	(.72)					
7. Personal Qualities-related Self-Perceived Employability (Personal SPE)	3.29	0.67	.25**	-.07	.18**	.29**	.26**	-.08	(.70)				
8. Market-related Self-Perceived Employability (Market SPE)	3.36	0.79	.29**	.08	.21**	.28**	.29**	.03	.50**	(.75)			
9. Overall Self-Perceived Employability (Overall SPE)	3.31	0.62	.31**	-.02	.22**	.33**	.31**	-.05	.93**	78**	(.77)		
10. Future Intent to Volunteer beyond University studies (Intent to Vol)	3.93	0.58	.10*	.04	.35**	.13*	.28**	.04	.20**	.25**	.25**	(.79)	
11. Strength of Volunteering Identity (Vol Identity)	3.70	0.66	.19**	.05	.32**	.13*	.24**	.03	.19**	.22**	.23**	.67**	(.85)

Note. **$p < .01$, *$p < .05$, $n = 254$. Diagonal entries in parentheses indicate the Cronbach alpha reliability of each scale.