Perceived Economic Mobility:
Measurement, Validity, and Implication for Consumer Wellbeing and Materialism

Abstract

This research develops the Perceived Economic Mobility Scale (PEMS), which assesses the individual perception about the extent to which society allows people to move up or down the economic ladder in a relative standing. Through a series of six studies, we developed a multi-item scale and thoroughly examined its psychometric properties. In Study 1a and 1b, we generated and selected items, and examined the factor structure, scale reliability, and dimensionality using confirmatory factor analysis. Study 2 demonstrated test-retest reliability of the PEMS and examined the susceptibility of the PEMS to social desirability bias. Study 3 provided evidence of discriminant and nomological validity of the PEMS. Following that, in Studies 4 to 6, we revealed that individual perception about economic mobility determines consumer subjective wellbeing. Consumers perceiving high economic mobility (vs. low economic mobility) experienced higher subjective wellbeing. Furthermore, despite the commonly held perspective that materialism lowers consumer wellbeing, materialism did not necessarily hurt subjective wellbeing when they perceived high economic mobility.

"We know that people's frustrations run deeper…It's rooted in the nagging sense that no matter how hard they work, the deck is stacked against them. And it's rooted in the fear that their kids won't be better off than they were."

President Obama, Dec. 4, 2013

Recent statistics have shown that it is getting harder to move up the economic ladder by individual efforts in the United States. For example, about 42 % of men born in the bottom fifth end up in the same place, just 8% of men at the bottom rose to the top fifth in the United States (Jäntti et al. 2006). The low relative economic mobility in such a country that has been considered as classless society is attracting a lot of attention in academia, and some economists contended that how mobile people perceive the society as being affects a wide range of consumption decisions and consumer subjective wellbeing (Alesina, Di Tella, and MacCulloch 2004; Alesina and La Ferrara 2005; Bjørnskov et al. 2010; Fischer 2009). However, our understanding of this topic is still very limited, and we believe that it is attributable to the absence of a sound instrument to assess subjective perception of economic mobility. Although the General Social Survey (GSS) and the World Value Survey (WVS) includes several questions which have been used as proxies of perceived mobility in literature (Alesina and La Ferrara 2005; Bjørnskov et al. 2010; Fischer 2009), these questions do not exactly capture how people perceive about economic mobility of the society, by assessing the construct too broadly (e.g., how important hard work is to succeed) or too narrowly (e.g., if poverty is attributable to individual faults). Thus, in this research, we seek to develop a valid measure of perceived economic mobility, which assesses individual perception about the extent to which society allows people to move up or down the economic ladder in a relative standing. Using the Perceived Economic Mobility Scale (PEMS), we also examine that perceived economic mobility affects consumer wellbeing as a predictor and a moderator which mitigates the negative impact of materialism.

HYPOTHESES DEVELOPMENT

In this section, we develop hypotheses that link perceived economic mobility and consumer subjective wellbeing. According to procedural utility theory (Frey, Benz, and Stutzer 2004), people not only care about outcomes, they also value procedures which generate the outcomes. If people have the impression that processes affecting their own outcomes are fair, they are not only likely to evaluate the outcomes favorably, but also tend to experience higher subjective wellbeing. Based on the theory of procedural utility, we expect that the perception about economic mobility, which captures perceived fairness of the current economic system and controllability of economic outcomes, will lead people to favor their current income status even if it is not fully satisfactory. People will be more likely to appreciate and endure the current status, since it is regarded as what they deserve.

Perceived economic mobility also leads to optimistic view on their own future, which enhances their subjective wellbeing. Numerous studies (Darvill and Johnson 1991; DeJoy 1989; McKenna 1993; Taylor et al. 1992) have identified a positive relationship between perceptions of control and future optimism (for a review see Harris 1996). If an event is considered to be controllable, people tend to believe that their own likelihood that it would turn out the way they would like is greater than other people (Weinstein 1980). Along the same vein, people who perceive that they live in a mobile environment where their chance to be wealthy or poor are determined by their own actions may be convinced that they have

good prospects of moving up the economic ladder, and it will increase their subjective wellbeing. Thus, the first hypothesis is:

H1: People with high PEMS than those with low PEMS are more likely to experience greater subjective wellbeing.

We also expect that perceived economic mobility will moderate the negative effect of materialism on subjective wellbeing. Materialism, an enduring belief in the desirability of acquiring and possessing things (Richins and Dawson 1992), has been criticized because it is inversely related to consumer subjective wellbeing (Belk 1985; Burroughs and Rindfleisch 2002). Among all possible explanations about why materialism harms consumer subjective wellbeing, we focus on the explanation of Sirgy (1998). He suggests that materialists set standard-of-living goals that are abnormally high and unrealistic, so the greater gap between ideal and current status result in low subjective wellbeing.

We predict that people holding optimistic perception about economic mobility to be less affected by the negative impact of materialism on consumer wellbeing. That's because they consider that they are able to reach the ideal state, in turn, narrow the gap between the ideal and current status. Consequently, they will consider the gap as temporary and not insurmountable, and will not necessarily experience low subjective wellbeing. In contrast, for consumers with pessimistic perception about economic mobility, the gap should be considered as permanent and uncontrollable, in turn it will reduce their sense of wellbeing. Thus, perceived economic mobility will moderate the detrimental effect of materialism on consumer subjective wellbeing.

H2: PEMS moderates the negative effect of materialism on subjective wellbeing. Holding materialistic value does not reduce subjective wellbeing among people with high PEMS (vs. low PEMS).

SCALE DEVELOPMENT AND VALIDITY TESTS

The PEMS represents a continuous individual difference variable where an individual with high level of PEMS would have a very intense faith that society ensures success through hard work regardless of social class origins. Based on the equity theory of Adams (1965) and Carrell and Dittrich (1978), we suggest that the PEMS encompasses two related dimensions: (1) how closely connected individual input to financial consequences (Meritocracy), and (2) how fair the system works especially between for the advantaged and the disadvantaged (Fairness of the system).

An initial pool of 48 items was generated based on a review of relevant literature, instruments used to measure similar constructs, and depth interviews. Following the item generation step, ambiguous items and statements with redundant meaning were eliminated, resulting in a revised pool of 34 items. The 34 items followed the preliminary two-dimensional conceptualization: meritocracy (16 items) and fairness of the system (18 items).

In Study 1a (112 undergraduate students) and Study 1b (509 adults in Amazon Mechanical Turk), we conducted exploratory factor analysis with 34 potential items, and finalized the scale with eight items that all loaded on the two hypothesized dimensions. Table 1 depicts final eight items and their factor loadings gained in Study 1b, 3, 4, and 6. Final eight items explain 72% of the total variance. Confirmatory factor analysis also showed satisfactory model-fit (X^2 (19) = 117.48; NFI = .97, IFI = .98, CFI = .98, SRMR = .04). The

PEMS was not correlated with age, gender, and education, but was positively correlated with household income (r=.18, p<.01).

Study 2 (46 undergraduate students) demonstrated high test-retest reliability (r=.78, p<.01). It also revealed that the PEMS is not susceptible to social desirability bias by showing insignificant correlation between the PEMS and the Marlowe-Crowne Social Desirability Scale (Crowne and Marlowe 1960) (r=-.09, p>.50).

In Study 3 (101 adults in Amazon Mechanical Turk), we tested nomological validity. The PEMS was higher among people who experienced intergenerational upward mobility (vs. downward mobility) and positive income change during the last 10 years (vs. negative income change, no change). The PEMS was also positively correlated with sense of control over financial outcomes. Furthermore, people with high PEMS believed that the income difference in the US is not too big, and they were less likely to support government's redistribution policies. We also tested if the PEMS can be distinct from the questions included in the GSS and WVS that attempt to assess people's subjective perception about mobility. The chi-square difference test (Anderson and Gerbing 1988) and comparison of AVE estimates with the squared correlation (Fornell and Larcker 1981) demonstrated the discriminant validity of the PEMS from these measures.

HYPOTHESES TESTING

Study 4

Study 4 was conducted to test H1. One hundred fifty seven adults in Amazon Mechanical Turk completed a survey which included the PEMS, subjective wellbeing measures, and demographic information. In order to tap the various facets of subjective wellbeing, we used multiple indicants of this construct: 1) a question about satisfaction with financial status which was adapted from the National Financial Capability Study (NFCS), 2) a question about happiness which was adapted from the WVS, and 3) mental health (GHQ-12: Goldberg and Williams 1988) which assesses the frequency of experiencing and symptoms caused by mental illness.

We regressed each of subjective wellbeing measures on the PEMS and other demographic information (gender, age, education, household income, marital status, working status). The results showed that the PEMS significantly predicts satisfaction with financial status (β=.26, t=2.85, p<.001), happiness (β=.16, t=2.03, p<.05), and mental health (β=-.16, t=-2.06, p<.05), implying that holding optimistic perception about economic mobility promotes consumer subjective wellbeing (H1). We additionally tested if the PEMS works differently to low-income people and high-income people by adding PEMS x household income interaction term into the regression models. The interaction terms were insignificant for all of three criteria (all ps >.26), implying that perceived economic mobility heightens subjective wellbeing irrespective of individual current income level.

Study 5

Study 5 aimed to test H2. One hundred sixty two adults in Amazon Mechanical Turk completed a survey which included the PEMS, subjective wellbeing measures, materialistic value scale (MVS; Richins and Dawson 1992) and demographic information (age, gender, education, household income, marital status, and working status). Three separate regression analyses were conducted for three wellbeing measures; Satisfaction with life (Diener et al. 1985), neuroticism (Eysenck, Eysenck, and Barrett 1985), stress (Lovibond and Lovibond 1995).

We regressed each of subjective wellbeing measures on the PEMS, the MVS, PEMS x MVS, and other demographic information (gender, age, education, household income, marital status, working status). The interaction terms were significant in all of three models (Satisfaction with life: β=.15, t=2.16, p<.05; Neuroticism: β =-.17, t=-2.29, p<.05; Stress: β =-.17, t=-2.31, p<.05). As shown in the Figure 1, spotlight analysis (Aiken and West 1991) showed that at one standard deviation below the mean of the PEMS (i.e., for low PEMS consumers), holding high materialistic value was associated with subjective wellbeing measures (SWLS: β =-.36, t=-3.80, p<.001; Neuroticism: β =.37, t=3.90, p<.001; Stress: β =.49, t=5.11, p<.001), but at one standard deviation above the mean of the PEMS (i.e., for high PEMS consumers), holding materialistic value was not associated with subjective wellbeing measures (SWLS: β =-.05, t=-.46, p>.60; Neuroticism: β =.03, t=.30, p>.70; Stress: β =.15, t=1.29, p>.10). That is, people with high materialistic value experienced lower life satisfaction and higher neuroticism and stress only when they perceived low economic mobility but not when they perceived high economic mobility.

Study 6

To explore the causal effect of perceived economic mobility on subjective wellbeing, we conducted a random-assignment experiment in which perception about economic mobility was manipulated. One hundred twenty nine undergraduate students participated in the experiment. They read an article, ostensibly published in the *New York Times*, which presents either high or low economic mobility of the US, and then completed a set of questions which assess their emotional states (PANAS; Mackinnon et al. 1999) and materialistic value (MVS; Richins and Dawson 1992). The emotional states – positive affect and negative affect – were used to assess subjective wellbeing, given that one's temporary emotions are important elements of subjective wellbeing with the cognitive evaluation of one's life (Diener 2009).

The regressions analysis again supported H2 by revealing significant interaction effect of economic mobility condition and the MVS (β=-.24, t=-2.72, p<.01). In the low mobility condition, holding high materialistic value led people to experience higher negative affect (β=.26, t=2.16, p<.005), but in the high mobility condition, holding materialistic value marginally decreased negative affect experienced by respondents (β=-.02, t=-.18, p<.08). In aggregate, materialism did not harm consumer subjective wellbeing when they believe upward mobility is possible.

GENERAL DISCUSSION

This research has several contributions. First, it introduced a scale that measures individual perceived economic mobility, which will enable us to better understand how perceived economic mobility affects people's decision making and wellbeing. Despite the growing pessimism towards chances of moving up the economic ladder (Economic Mobility Project, 2009/2011), the effect of perceived economic mobility has not been thoroughly illuminated in past research, nor has there been a sound scale to measure it. Thus, we hope that this scale help researchers studying related topic and draw more scholarly attention in the consumer research field.

Second, we revealed that the positive perception about economic mobility promotes consumer wellbeing not only independently, but also by alleviating materialism's negative impact. Despite the commonly held criticism on materialism, this research suggests that material pursuits need not have adverse effects on individual wellbeing if he or she believes in the chance of upward economic mobility. Thus, promoting belief in economic mobility can

be one of effective solutions to help consumers be happier in this material world. Especially given the fact that the perception was manipulated in Study 6, enhancing belief in economic mobility can be feasible strategy for policy makers.

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TABLE1

CONFIRMATORY FACTOR ANALYSIS ITME LOADINGS AND MODEL FIT

Items	Factor loadings			
	Study 1b	Study 3	Study 4	Study 5
Meritocracy:				
Anyone who works hard can succeed and live a comfortable life.	.84	.91	.85	.63
There's plenty of opportunity, and anyone can go as far as he/she wants.	.87	.92	.92	.69
Everyone has a fair chance at moving up the economic ladder.	.82	.84	.88	.88
"Work hard, you will prosper" describes the way this society works.	.77	.81	.79	.82
Fairness of the system:				
Poor people have little chance of escaping from poverty.*	.61	.62	.70	.69
Poor people do not have enough chance to get a good education. *	.70	.65	.64	.76
Today's economy advantages the rich and it's difficult for average people to get ahead. *	.67	.88	.76	.83
Inequality continues to exist because the rich and powerful take most of the benefits. *	.89	.87	.76	.81
	Correlation of two factors and coefficient alpha			
	Study 1B	Study 3	Study 4	Study5
Correlation between the two factors	.75	.59	.68	.70
Coefficient α of "Meritocracy"	.90	.93	.92	.87
Coefficient α of "Faith in the system"	.83	.84	.80	.85
Coefficient α of PEMS	.90	.91	.89	.89
	Model fit indices			
	Study 1B	Study 3	Study 4	Study 5
Chi-square (df=19)	117.48	75.41	56.73	56.93
NFI	.97	.92	.96	.95
IFI	.98	.94	.97	.97
CFI	.98	.94	.97	.97
SRMR	.03	.11	.05	.06
RMSEA	.10	.17	.11	.11

*Reverse scored items

FIGURE 1
STUDY 5: SPOTLIGHT ANALYSIS