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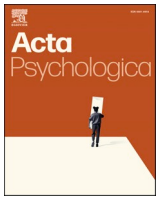

Associations between protestant work ethic and multilevel marketing participation and financial outcomes

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ABSTRACT

Multilevel marketing (MLM) involvement can adversely affect consumer wellbeing. We examine how individual beliefs about work predict participation and financial losses in MLMs. As MLMs are presented to the marketplace as low-barrier opportunities to start one's own business, we suggest that this may speak directly to people who strongly endorse Protestant work ethic (PWE), making them more inclined toward MLM participation, and financial outcomes associated with that participation. Using a place-based (county level) MLM data set from the Federal Trade Commission (FTC; $n = 326{,}487$), and a consumer survey ($n = 515$), we find evidence that PWE is positively associated with participation in MLMs (studies 1 and 2), and that PWE predicts estimated financial losses among those who lost $1000 or more (study 1) but financial gains in a more general sample of MLM participants (study 2). Implications for research, marketing, and consumer advocacy are discussed.

1. Introduction

The multilevel marketing (MLM) industry exceeds $40 billion USD annually in the United States alone (World Federation of Direct Selling Associations, 2021), and consumer participation in MLM businesses has been increasing year over year (Direct Selling Association, 2020). MLM is a business model wherein services, consumables, and various other consumer products are circulated through a network of independent distributors (individuals we term "participants"). Although many are familiar with MLM brands within beauty, household, and nutrition categories (e.g., Avon, Amway, Herbalife, etc.), the MLM model is pervasive across industries including energy and utilities, insurance services, travel services, sales and marketing services, among others, and one in 13 American adults participates, or has participated in, an MLM company (collectively referred to as MLMs; AARP, 2018). Despite its ubiquity, limited academic research (e.g., DeLiema et al., 2021; Dixon et al., 2023; Grant-Smith et al., 2021) exists on how individual differences predict participation in, and financial outcomes from, MLMs. This knowledge gap impedes the ability of marketers, policy makers, and consumer advocates in this important and prevalent domain. Herein, we investigate whether Protestant work ethic (PWE) predicts MLM involvement and in so doing are among the first to empirically examine how this individual difference could shape inclination to participate in MLMs, as well as potential downstream financial outcomes associated with that participation.

1.1. Theoretical framework

PWE is a multidimensional individual difference construct, reflecting one's religious, moral, and lifestyle beliefs (Furnham, 1990; Miller et al., 2002), and focuses on elements such as self-reliance, beliefs about the value of hard work, and a strong desire not to waste one's time (see Table 1 for a description of all PWE facets). Prior studies consistently find that people with high PWE have a strong need for independence and personal achievement, and that they are highly engaged with their work (Blood, 1969; Furnham, 1984; Kidron, 1978; McClelland, 1961).

PWE is conceptually relevant to participation in MLMs for two main reasons. First, individuals high in PWE tend to find satisfaction in working hard (Furnham, 1982), also valuing independence and personal achievement (Blood, 1969; Furnham, 1984; Kidron, 1978; McClelland, 1961). MLM participants function as quasi-autonomous product distributors and derive their income from two principal sources: (1) by

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Table 1
List of PWE facets and descriptions.

PWE Facet	Description
Self-reliance	Beliefs that self-reliance will lead to success; people would be better off if they depended on themselves; striving to be self-reliant; importance of being self-reliant.
Morality and ethics	Beliefs about the importance of taking responsibility for actions; not passing judgment until facts are heard; importance of treating others as you want to be treated; being fair in one's dealings with others.
Leisure	Preference for job that allows much leisure time; belief that leisure time is good and desirable; people and the world would be better with more leisure; people should have more leisure time.
Hard work	Working hard is key to being successful; hard work likely to make a good life; working hard will equal success; anyone willing to work hard is likely to succeed.
Centrality of work	Contentedness, fulfillment, and sense of accomplishment derived from hard work.
Wasted time	Importance of staying busy and not wasting time; importance of efficiency; looking for ways to be more productive; planning to avoid wasting time.
Delay of gratification	Fulfillment from delaying gratification; distant rewards are most worthwhile and satisfying; belief that the best things in life are those you wait for.

engaging in the direct sale of the MLM's products to consumers, and (2) recruiting additional distributors, thereby increasing revenue with commissions on sales by each subsequent recruit. Consequently, the *nature* of the distributor position leverages values intrinsic to high PWE individuals such as independence and the opportunity for self-reliance and personal achievement (Furnham, 1990; Miller et al., 2002; Schiffauer, 2018). Second, prior research finds PWE to be a key factor supporting an individual's tendency to start a business (Carroll & Mosakowski, 1987; Shane, 1996) and is positively associated with an entrepreneurial spirit (Carswell & Rolland, 2004). Indeed, MLM marketing appeals typically portray a low-risk opportunity to "own your own business" with low barriers to entry, high earnings, and limitless potential (Koehn, 2001; Schiffauer, 2018, 286; for reviews see: Keep & Vander Nat, 2014; Groß & Vriens, 2019). Indeed, one study found that the two most popular reasons to join MLMs included earning extra money and "achieving a better work-life balance" (Grant-Smith et al., 2021, p. 15). Further, Jain et al.'s (2015) results suggest that, among other variables, personal accomplishment and being one's own boss attract individuals to MLMs.

Given the alignment between PWE values, characteristics of the distributor position, and the because of how the MLM roles are depicted in the marketplace, we question whether a positive relationship between PWE and MLM participation will be observed. Put formally,

RQ1. Is Protestant work ethic (PWE) positively associated with participation in MLMs?

Prior work establishes that success within MLMs is difficult to achieve; about 50 % lose money following their participation while 25 % report breaking even (AARP, 2018). Although we expect PWE is positively associated with MLM participation, its relationship with financial outcomes remains to be explored. On the one hand, prior work suggests that PWE often leads to career achievement (McClelland, 1961; Spenkuch, 2017) and job satisfaction (Tang et al., 2003; Stone, 1975; see also Merrens & Garrett, 1975; Smrt & Karau, 2011; Amos et al., 2019), which suggests that PWE may be associated with positive financial outcomes in MLM participation. On the other hand, MLMs are distinct from other business ventures in several aspects. Specifically, although MLM distributors have freedom over their day-to-day activities, they do not control key business variables such as the product or its quality, the brand or marketing, or market saturation of other distributors – all factors which could make financial success challenging. Further, PWE is associated with frugality and avoiding wastefulness (Cheng et al., 2019), which may lead to higher sunk cost discounting. In other words, once involved in MLM, people with high PWE may find themselves more likely to be locked into the business. Taken together, PWE may alternatively predict worse financial outcomes.

As a directional relationship is unclear, we pose a research question for financial outcomes. Put formally:

RQ2. Is PWE associated with MLM participants' financial outcomes?

We conducted two studies to examine these associations. Appendices are available on OSF: (https://osf.io/px8n3/?view_only=32cf14510f2948bc9d0bab8b02b05982).

2. Study 1: federal trade commission data

In study 1, we assess RQ1 and RQ2 using data from a major MLM settlement using a place-based (county-level) study. We first outline details of the settlement and then proceed to the study itself.

2.1. The FTC vs. herbalife

In 2016, the FTC filed a complaint against Herbalife, a top MLM company by revenue (MLM News Report, 2019; Ravindran, 2021), for using deceptive recruitment messages. The complaint clearly outlines that the "retail sale of Herbalife product is not profitable," despite the company promoting across media that "[d]istributors are likely to earn substantial income…by purchasing and re-selling Herbalife products" (FTC, 2016, 5). Its distributors' profits were earned almost solely through the recruitment of additional downline distributors (rather than actual retail sales; FTC, 2016). As well, Herbalife's events for distributors were cited as having speakers "[emphasizing] that Distributors' income potential is limited only by their own efforts" (FTC, 2016, 9). The FTC concluded that the "overwhelming majority of Herbalife distributors who pursue the business opportunity do not make anything approaching full-time or even part-time minimum wage because the promised retail sales to customers simply are not there" (2016, 18). Ultimately, the Herbalife settlement awarded over 350,000 payouts totaling $200 million to compensate current and former distributors, and Herbalife was required to overhaul its compensation structure to reflect retail sales rather than remunerating distributors for recruiting others (FTC, 2019). More information about the details of the settlement and associated data are included within the methods section below.

2.2. Method

2.2.1. Protestant work ethic

To measure county-level PWE we use a proxy available from a secondary data source. Researchers find that protestant individuals are more likely to ascribe to PWE values given they strongly hold PWE beliefs (e.g., Arslan & Chapman, 2001; Chusmir & Koberg, 1988). Additionally, they exhibit behaviors consistent with a high PWE such as working longer hours and suffering greater psychic costs related to unemployment (found at the individual *and* societal level; Spenkuch, 2017). Given this, we use a place-based measure of protestant populations as a proxy for PWE. The approach of using county-level data has been employed to study a variety of phenomenon such as negative emotionality and heart disease mortality (Eichstaedt et al., 2015), political ideology and consumer complaints (Jung et al., 2017), and religion and negative information sharing (Casidy et al., 2021).

In 2010, the Association of Statisticians of American Religious Bodies (ASARB) conducted a study titled "Religion Census Religious Congregations and Membership Study" that compiled data on 236 religious groups for each county in the United States (this study is typically conducted every 10 years). The data is made available on the website for The Association for Religion Data Archives (ARDA) and contains a measure of church attendance (i.e., the number of individual attendees) and congregations for each religious group in each county. From this

data, we combined the Protestant religious groups (Protestant faiths were labeled as such in the data) resulting in measures of (1) protestant attendees and (2) protestant congregations. To account for different population sizes, we created Protestant attendee per capita and congregation per capita measures by dividing attendees and congregations by county population (age 18 and over). The Protestant *attendees* per capita measure was used as our main independent variable, as this provides a more direct measure of the prevalence of Protestantism (i.e., because congregations vary in their number of members). The regression results using Protestant *congregations* per capita as an additional alternative explanatory variable can be found in Web Appendix B.

2.2.2. Participation and financial outcomes

Following a formal request, data was provided by the FTC that included city, state, and dollar amount for each check distributed in the 2016 Herbalife settlement. The checks were a partial refund for damages incurred between 2009 and 2015 for individuals who had lost at least $1000. Individuals who lost less than $1000 or made profits of any amount were absent from this dataset. The value of the checks was determined by the FTC was proportionate to the damages experienced by a given participant; that is, larger checks correspond to larger negative financial outcomes for the individual. However, because no identifying information was associated with individual checks (i.e., there is no way to measure individual-level PWE for each Herbalife distributor), we aggregated the check data at the county level and created two measures to capture county-level financial outcomes: (1) number of checks per county and (2) the total dollar amount of checks per county. Consistent with the treatment of the PWE variable above, a per capita measure was calculated to account for population differences and aid in interpretation. Thus, the dependent variables representing financial outcomes were: (1) number of checks per capita and (2) total dollar amount of checks per capita.

2.2.3. Covariates

As prior research has found social and demographic factors associated with MLM participation (Bäckman & Hanspal, 2022; Grant-Smith et al., 2021), we include a set of county-level social and demographic indicators obtained from the U.S. Census Bureau's 2012–2016 American Community Survey (ACS), which provides a 5-year estimate. The following variables were included in the data as covariates: income (i.e., median household annual income; ACS, 2017); education (bachelor's degree %; ACS, 2017), and ethnicity (% of people who are white, % of people who are black, and % of people who are Hispanic; ACS, 2017; see DeLiema et al., 2021 and Bäckman & Hanspal, 2022 for a similar approach). Considering the ACS data is only available for defined sections of time, the 2012–2016 best coordinated with the time period reflected in the FTC settlement data (2009–2015). Table 2 lists descriptive statistics for the variables used in Study 1. Table 3 reports the correlation analysis of these variables. A table listing all variables, their format, and original data source, is presented in the Web Appendix A.

2.2.4. Data merging

A series of steps were required to build the dataset used in this study, combining the FTC data with the ARDA church data and the covariates obtained from the ACS census. Federal Information Processing Standard (FIPS) codes were present in both the ARDA and ACS datasets (as both were county-level data) and were used as the merging variables. A FIPS code is five numbers to numerically represent the geographic areas of states and cities – the first two numbers indicate the state, the last three numbers indicate the county in that state. The FTC settlement data included the city and state for each check recipient, but no FIPS codes, so we first used programming code to match FIPS codes to each check's city and state. Next, we manually assigned any city residing in multiple counties to whichever county was first alphabetically. Last, the church data and covariates were merged with the FTC data in Excel. Not all counties had complete data from either the church data or the census data, most of which were counties in Puerto Rico and other U.S. territories. Ultimately, 2917 counties that included 338,162 checks were included in the final analysis. See Web Appendix A for further detail on the data set, aggregation, and data cleaning.

Table 2
List of predictors and control variables (Study 1).

Variable description	Variable Unit	Minimum/ Maximum	Means/SDs
Number of checks per capita	Number	0/0.0551	0.0010/ 0.0016
Value of checks per capita	Dollar	0.0070 /28.8558	0.5063/ 0.8680
Number of Protestant attendees per capita	Number	0/1.9003	0.4648/ 0.2465
Number of Congregations per capita	Number	0/0.0113	0.0026/ 0.0016
Percentage of people having bachelor's degree or above	Percent	2.50/86.50	20.21/9.15
Median household annual income	Dollar	22,045/ 134609	50,052/ 12873
Percentage of white alone population, not Hispanic	Percent	4.21/5.09	75.59/ 14.42
Percentage of black or African American alone population	Percent	0/70.96	7.35/11.70
Percentage of Hispanic or Latino population	Percent	0/81.50	6.53/10.71

2.3. Results

All variables were standardized before conducting analyses. We first ran two ordinary least squares (OLS) analyses using (1) the number of checks per capita and (2) the value of checks per capita as the dependent variables, respectively, and control variables to build two base models (see base model in Table 4). Next, we added Protestant attendees per capita to the base model. Protestant attendees per capita significantly predicted the number of checks per capita ($\beta = 0.1393$, $t = 7.01$, $p < .001$) and the value of checks per capita; ($\beta = 0.1202$, $t = 6.07$, $p < .001$; see OLS model in Table 4 for statistics summary).

Looking at the impact of covariates, our regression results also indicate that counties with higher median household income, lower percentage of whites, lower percentage of blacks, and higher percentage of Hispanic were associated with greater payouts (i.e., higher negative financial outcomes) in the Herbalife settlement, which are consistent with early findings (Bäckman & Hanspal, 2022).

One may argue that our findings could be driven by some outlier counties with a high rate of compensation received. For example, the number and value of checks Falls Church, VA, received was 0.0165 checks and $9.36 per capita, respectively, which were significantly larger than the means of the sample. Therefore, to check the robustness of our findings, we employed two separate Tobit regression models that were identical to the OLS regression models except that we specified the upper censoring limits on the number of checks per capita and the value of checks per capita. Seventy-four observations were right-censored at two standard deviations above the number of checks and the value of checks (McDonald & Moffitt, 1980), respectively. The results from the Tobit models confirm the significant association between Protestant attendees and the number of checks per capita ($\beta = 0.0999$, $z = 9.45$, $p < .001$) and the value of checks per capita ($\beta = 0.0892$, $z = 8.28$, $p < .001$; see Tobit model in Table 4 for statistics summary).

2.4. Discussion

Our regression analyses revealed a positive association between PWE and participation and negative financial outcomes. Counties that had more people attending Protestant churches received more settlement checks and for larger sums of money, when compared to counties with fewer people who attended Protestant churches. Higher PWE per capita

Table 3
Study 1 Correlations.

		NChPC	VCPC	NPAPC	NCPC	% Bach	MAN	% White	% Black
Number of checks per capita	Pearson Correlation	1							
Value of checks per capita	Pearson Correlation	0.972	1						
Number of Protestant attendees per capita	Pearson Correlation	0.009	−0.010*	1					
Number of Congregation per capita	Pearson Correlation	−0.046*	−0.062	0.702**	1				
Percentage of people having bachelor's degree or above	Pearson Correlation	0.093**	0.089**	−0.232	−0.374	1			
Median household annual income	Pearson Correlation	0.119**	0.122**	−0.328**	−0.482	0.688**	1		
Percentage of white alone population, not Hispanic	Pearson Correlation	−0.015	−0.029	−0.058**	0.071**	0.024	0.145**	1	
Percentage of black or African American alone population	Pearson Correlation	−0.085	−0.080**	0.232**	0.104**	−0.145**	−0.253	−0.798**	1
Percentage of Hispanic or Latino population	Pearson Correlation	0.316**	0.334**	−0.178**	−0.158	−0.039*	0.010	−0.124**	−0.098**

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 4
Ordinary Least Squares and Tobit Regression Models (Study 1).

Dependent variable: Number of Checks per capita			
Predictor	Base model (t-value)	OLS model (t-value)	Tobit model (z-value)
Number of Protestant attendees per capita		0.1393 (7.01)***	0.0999 (9.45)***
Median household annual income	0.775 (3.08)***	0.1145 (4.49) ***	0.0811 (5.86)***
Percentage of people having bachelor's degree or above	0.0464 (1.85)*	0.0472 (1.90)*	0.0450 (3.36)***
Percentage of white alone population, not Hispanic	−0.0409 (−1.22)	−0.0753 (−2.24)	−0.0672 (−3.83)***
Percentage of black or African American alone population	−0.0629 (−1.89)*	−0.1110 (−3.30)***	−0.1127 (−6.29) ***
Percentage of Hispanic or Latino population	0.3109 (16.34)***	0.3260 (17.19)***	0.2912 (7.70) ***
Constant	0.0335 (1.99)	0.0370 (2.09)	−0.0378 (−3.95)***
R-squared	0.116	0.131	0.175 (pseudo R^2)
Adjusted *R*-squared	0.115	0.129	–

Dependent variable: Value of Checks per capita			
Predictor	Base model (t-value)	OLS model (t-value)	Tobit model (z-value)
Number of Protestant attendees per capita		0.1202 (6.07)***	0.0892 (8.28)***
Median household annual income	0.0901 (3.60)***	0.1220 (4.80)***	0.0879 (6.23)***
Percentage of people having bachelor's degree or above	0.0339 (1.36)	0.0346 (1.39)	0.0354 (2.59)**
Percentage of white alone population, not Hispanic	−0.0597 (−1.80)*	−0.0894 (−2.67)**	−0.0814 (−4.55)***
Percentage of black or African American alone population	−0.0688 (−2.08)**	−0.1103 (−3.29)**	−0.1133 (−6.21) ***
Percentage of Hispanic or Latino population	0.3259 (17.25)***	0.3389 (17.93)***	0.2904 (27.02) ***
Constant	0.0335 (1.89)*	0.0349 (1.98)**	−0.0418 (−4.27)***
R-squared	0.128	0.139	0.167 (pseudo R^2)
Adjusted *R*-squared	0.126	0.137	–

*** Correlation is significant at the 0.001 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

– assessed as Protestant church attendees per capita – was associated with greater negative financial outcomes from participating in an MLM (i.e., Herbalife). This provides initial insight addressing RQ2, finding that yes, a PWE is associated with financial outcomes for MLM distributors, and the results are larger negative financial outcomes.

However, two key limitations exist in the interpretation of this finding. First, the data only includes those individuals who lost $1000 or more. Individuals who made money, broke even, or made $999 or less were not included in the data, and we were also not provided with information on the total number of participants per county. Thus, there are limits on the extent to which these findings can be extrapolated more broadly, and the reasonable question exists whether this data fully operationalizes participation or financial outcome. Second, data is place-based and aggregated to the county level, rather than at the individual level, which could obscure true relationships or give rise to spurious correlations. For example, Herbalife may have been targeting consumers more frequently in certain states or certain kinds of states over others, which our data cannot account for. Nonetheless, based on data from a substantial number of actual MLM participants, this study provided possible support for the assertion that PWE is associated with participation in MLMs (RQ1) and greater negative financial outcomes (RQ2). In study 2, we corroborate these findings at the individual level while seeking to mitigate the limitations of study 1.

3. Study 2: multidimensional PWE and MLM participation

The purpose of study 2 is twofold. First, we attempt to replicate the findings of study 1 using survey data, which allows us to identify the relationship between PWE and MLM participation and financial outcomes at the individual level. Secondly, we use a multidimensional measure of PWE, which enables us to better explore which aspects of PWE are most associated with MLM participation and financial outcomes.

3.1. Method

3.1.1. Participants

Five hundred twenty-five American participants were recruited on Prolific Academic (www.prolific.ac) and completed this study. There was no pre-screen other than the United States being their current country of residence. Ten participants failed one or more attention check questions (see below for the attention check questions used) and were excluded from data analysis. The final sample consisted of 515 participants (M_{age} = 33.95; SD_{age} = 12.83; 45.4 % female, 2.5 % identified as

non-binary/third gender, 0.2 % preferred not to say) of which 138 had previously participated in at least one MLM (M_{age} = 38.36; SD_{age} = 13.50; 58.0 % female, 0.7 % identified as non-binary/third gender).[1]

3.1.2. Procedure and measures

Following the consent form, participants completed a series of measures, described below. Institutional Review Board approval was received prior to beginning data collection.

3.1.2.1. PWE. We utilized a multidimensional PWE scale (Meriac et al., 2013), comprising seven facets with 28 items (each facet had 4 items; e.g., "people who fail at a job have usually not tried hard enough," "a distaste for hard work usually reflects a weakness of character," "I feel uneasy when there is little work for me to do"; alpha = 0.90; M = 3.43; SD = 0.46; Meriac et al., 2013). The seven facets were self-reliance (alpha = 0.785; M = 3.65; SD = 0.714), morality/ethics (alpha = 0.726; M = 4.41; SD = 0.50), leisure (alpha = 0.829; M = 2.09; SD = 0.70), centrality of work (alpha = 0.867; M = 3.79; SD = 0.73), hard work (alpha = 0.897; M = 3.58; SD = 0.86), wasted time (alpha = 0.733; M = 3.59; SD = 0.71), and delay of gratification (alpha = 0.845; M = 3.29; SD = 0.78; see Table 1 for descriptions of all facets). The full scale is available in Web Appendix C.

3.1.2.2. MLM participation. Respondents were then provided with the following definition and asked to indicate if they have ever participated in a MLM company (yes or no), which was used as our criterion variable.

> Multilevel marketing companies, sometimes also called direct sales companies, are companies that recruit individuals to sell their products and recruit others into the company. Individuals who work with these companies go by titles such as distributor, independent consultant, direct sales representative, ambassador, or business owner (among others) and are typically recruited to earn money. Some popular examples are Mary Kay, Tupperware, Avon, and Herbalife.
>
> Have you ever worked with a multilevel marketing or direct sales company?
>
> (Note: this is only if you have sold products or services and/or recruited for one of these companies, not if you've simply been a customer).

3.1.2.3. Financial outcomes. Respondents were asked to report "What was the result of your participation in the MLM(s)?" on two different scales −3 to +3 scales (−3 means you lost a significant amount of money and + 3 means you made a significant amount of money; −3 means you were significantly worse off after participating and + 3 means you were significantly better off after participating). The two items were averaged to create an index of financial outcomes (alpha = 0.872) wherein a higher (lower) value indicated a more positive (more negative) financial outcome.

3.1.2.4. Demographics. All participants completed demographic measures including age (in years), and gender (male, female, other, or prefer not to say).

3.1.3. Attention checks

Respondents were asked to complete one bot check and one attention check. The bot check included a captcha that was presented following the consent form but before respondents completed any of the measures to ensure that responses were received from humans rather than bots, which can occur within online samples. The attention check, presented on its own page, asked respondents to "Please write the fourth word in this sentence exactly as written," wherein the correct answer was "fourth" ("Fourth" capitalized was also accepted as correct). This approach was derived from prior practice (Huang et al., 2012; Meade & Craig, 2012; Ward & Pond III, 2015), and failed attention checks (n = 10) were removed from the data set before any analysis was conducted.

3.1.4. Validity checks

Using SPSS Amos 26, we ran a confirmatory factor analysis using the maximum likelihood estimation methods with robust standard errors to validate the seven factors that underly the PWE construct. Results suggest a good model fit. Specifically, The CMIN/DF was 2.041 which is less than 3, indicating an acceptable model fit (Kline, 2014). RMSEA is 0.045, which was less than 0.05, suggesting an excellent model fit (MacCallum et al., 1996). Details are presented in Web Appendix D.

3.1.5. Analytic procedure

Descriptive statistics, including means and standard deviations, were first computed. Additionally, independent samples t-tests were computed between MLM participants and non-participants (0 = non-participant, 1 = participant) on the factor- and facet-level PWE scales.

At the factor level, the relationship between PWE and MLM participation was analyzed using binary logistic regression, regressing the binary MLM participation variable (0 = non-participant, 1 = participant) on full scale PWE. Next, looking among the MLM participants, financial outcome was regressed on full scale PWE using linear regression.

At the facet level, the bivariate relationship between each PWE facet and MLM participation (0 = non-participant, 1 = participant) was analyzed using Pearson correlations, as were relationships among only the MLM participants on self-reported financial outcomes. This was done because multiple regression, by definition, is an analysis of multiple predictors on a criterion, wherein each predictor's beta is dependent on both its correlation with the criterion variable and its correlation with other predictors in the model. Facets, being subscales of the same individual difference factor, are highly overlapping both statistically (i.e., correlated; see Table 7) and conceptually. This renders multiple regression improper, because high intercorrelations between the predictors (i.e., facets) can create suppression effects and obscure the observation of bivariate relationships between each facet and the criterion variables. As such, we interpret bivariate correlations for these results (see O'Neill et al., 2014 for a comprehensive argument for this approach). We also provide, but do not discuss, multiple regression results at the facet level in Appendix E.

To be consistent with Study 1, all analyses were run including covariates (Ethnicity [0 = white; 1 = non-white], and Gender [0 = male; 1 = female]) and without covariates. In all cases, the pattern and significance of relationships was the same. Given the number of reported analyses, and the fewer degrees of freedom in this study, the more parsimonious models (i.e., those without covariates) are thus presented.

3.2. Results and discussion

Descriptive statistics are summarized in Table 5; independent samples t-test results (2-tailed) are presented in Fig. 1. In all cases, apart from the morality/ethics subscale ($t(513) = 0.96$, $p = .0.34$), MLM respondents scored significantly higher on all PWE subscales than non-participants. In particular, MLM participants were significantly higher than non-participants on the PWE full scale ($t(513) = -4.30$, $p < .001$), Self-Reliance ($t(513) = -3.09$, $p = .002$), Leisure ($t(513) = -2.63$, $p = .009$), Centrality of Work ($t(513) = -2.77$, $p = .006$), Hard Work ($t(513) = -3.33$, $p < .001$), Wasted Time ($t(513) = -5.00$, $p < .001$), and Delay of Gratification ($t(513) = -2.33$, $p = .02$).

[1] Census.gov reports that the American population overall has a mean age of 39 and is 50 % female (https://www.census.gov/newsroom/press-releases/2023/population-estimates-characteristics.html). Data from a nationally representative sample of 1000 Americans (AARP, 2018) finds that MLM participants are 29 years of age on average and 60 % female. Thus, both our sample overall and our MLM sample are comparable to the samples from which they were drawn.

Table 5
Descriptive Statistics for Non-Participants, MLM Participants, and All Respondents.

Non-Participants									
		Age	PWEFS	SR	M/E	Leisure	CoW	HW	WT	DoG
N	Valid	377	377	377	377	377	377	377	377	377
Mean		33.35	3.4328	3.5935	4.4231	2.0405	3.7354	3.4993	3.4927	3.2456
Std. Deviation		12.206	0.46052	0.72547	0.48794	0.68818	0.75295	0.86746	0.72368	0.75834
Skewness		1.082	−0.288	−0.413	−1.027	0.733	−0.902	−0.613	−0.265	−0.102
Std. Error of Skewness		0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
Kurtosis		0.482	0.558	0.228	1.513	1.062	1.373	0.198	−0.103	−0.147
Std. Error of Kurtosis		0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251	0.251

MLM Participants										
		Age	PWEFS	SR	M/E	Leisure	CoW	HW	WT	DoG
N	Valid	137	138	138	138	138	138	138	138	138
	Missing	1	0	0	0	0	0	0	0	0
Mean		38.36	3.6271	3.8116	4.375	2.221	3.9348	3.7826	3.8388	3.4257
Std. Deviation		13.499	0.43463	0.65958	0.53547	0.70002	0.63956	0.82326	0.6152	0.83021
Skewness		1.128	0.21	−0.16	−0.984	0.188	−0.838	−0.906	−0.126	−0.348
Std. Error of Skewness		0.207	0.206	0.206	0.206	0.206	0.206	0.206	0.206	0.206
Kurtosis		0.944	0.076	−0.283	1.014	−0.63	2.303	1.392	−0.282	−0.034
Std. Error of Kurtosis		0.411	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41

All Respondents										
		Age	PWEFS	SR	M/E	Leisure	CoW	HW	WT	DoG
N	Valid	514	515	515	515	515	515	515	515	515
	Missing	1	0	0	0	0	0	0	0	0
Mean		33.95	3.4849	3.6519	4.4102	2.0888	3.7888	3.5752	3.5854	3.2939
Std. Deviation		12.829	0.46142	0.71436	0.50104	0.69531	0.72908	0.86422	0.71241	0.78151
Skewness		1.091	−0.184	−0.379	−1.021	0.576	−0.922	−0.676	−0.297	−0.152
Std. Error of Skewness		0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108
Kurtosis		0.573	0.558	0.199	1.359	0.458	1.616	0.393	−0.041	−0.153
Std. Error of Kurtosis		0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215	0.215

PWEFS = Protestant Work Ethic full scale; SR = Self-Reliance subscale; M/E = Morality/Ethics subscale; L = Leisure subscale; CoW = Centrality of Work subscale; HW = Hard Work subscale; WT = Wasted Time subscale; DoG = Delay of Gratification subscale.

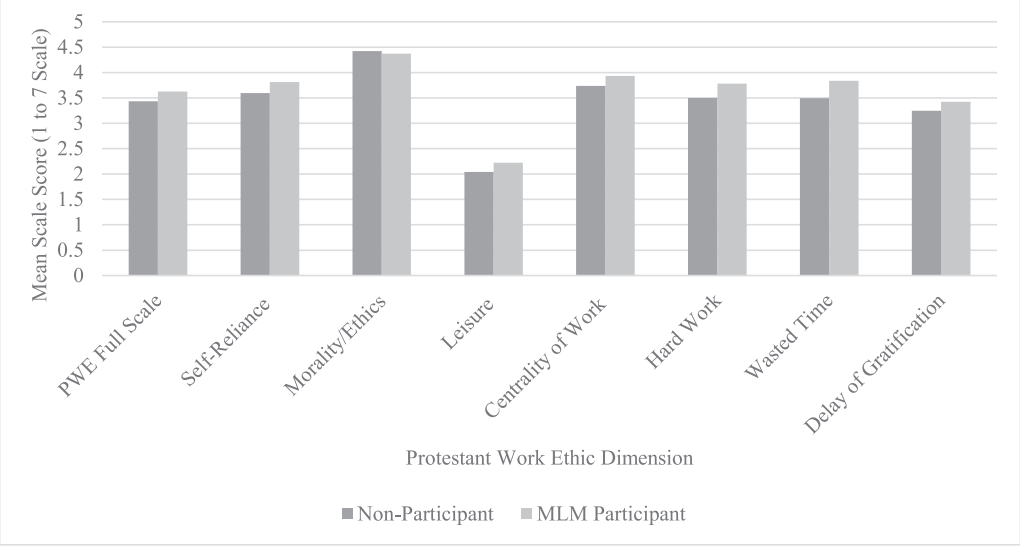

Fig. 1. Mean Differences Between MLM Participants and Non-Participants on PWE Factor and Facet Scores.

3.2.1. Factor-level analysis

To assess RQ1—if PWE is positively associated with MLM participation—we ran a binary logistic regression, using MLM participation (0 = non-participant, 1 = participant) as the dependent variable and the level of PWE at the factor level as the independent variable. Regression results revealed a significant positive relationship between full scale PWE and MLM participation (b = .967, Wald χ^2 = 17.31, p < .001). Thus, RQ1 was supported.

Next, among the subsample (n = 138) who had previously participated in an MLM, we assessed the association between full-scale PWE and self-reports of financial outcomes (b = .57, t = 2.32, p = .02; [.152 to 1.03]). Full-scale PWE was significantly and positively associated with

self-reported financial outcomes among MLM participants, in contrast with the negative financial outcomes observed in Study 1 (see Table 6). While study 1 found that PWE is related to negative financial outcomes with secondary data, at the individual level PWE was associated with self-reported positive financial outcomes.

3.2.2. Facet-level analysis

Given the multifaceted nature of PWE, we also conducted facet-level analyses to determine whether and which facets may be driving the observed effect. All but one of the facets was significantly and positively correlated with MLM participation. In particular, self-reliance (r = 0.135, p = .002, [0.050,0.219]), leisure (r = 0.115, p = .009, [0.029,0.200]), centrality of work (r = 0.121, p = .006, [0.035,0.205]), hard work (r = 0.145, p < .001, [0.060,0.229]), wasted time (r = 0.215, p < .001, [0.131,0.296]), and delay of gratification (r = 0.102, p = .02, [0.016,0.187]) were all significantly and positively associated with prior MLM participation (see Table 7). In contrast, the morality/ethics facet was not (r = −0.043, p = .335, [−0.128,0.044]). Based on correlation strength, this facet analysis implies that the motives to get the most value from one's time, the value of hard work, and beliefs about self-reliance most strongly predict MLM participation. Overall, this provides additional support for RQ1 and provides some insight into what about PWE may be inclining consumers higher on this attribute toward MLM participation perhaps due in part to their beliefs about hard work and achievement.

Next, we examined the relationships between PWE facets and self-reported financial outcome (see Table 8) for RQ2. Only the delay of gratification facet demonstrated a significant, positive, relationship with self-reported financial outcomes (r = 0.205, p = .016, [0.054, 0.361]); all other relationships were non-significant (i.e., p > .07; see Table 8). This finding suggests that experiencing fulfillment from delaying gratification, and an expectation of satisfaction from long-awaited rewards, is associated with more positive financial outcomes in MLM.

4. General discussion

Taken together, the studies presented herein advance knowledge on individual differences that may attract consumers to join MLMs, and overall, they support the assertion that PWE is associated with MLM participation; findings on whether PWE is associated with financial outcomes, in contrast, were mixed. Study 1 utilized place-based (county-level) data from the FTC (involving 326,487 consumers) and found that counties with higher Protestantism had more consumers participating in MLMs who lost $1000 or more *and* those consumers incurred more *negative* financial outcomes. Thus, study 1 demonstrated that Protestant church attendance is associated with MLM participation and losing more money, suggesting there may be a relationship between PWE and MLM participation and financial outcomes. Study 2 replicated the former finding at the individual-level such that consumers who endorse higher PWE were more likely to have participated in MLMs. Additionally, this study provides preliminary evidence that beliefs about hard work and self-reliance are two primary drivers for the relationship between PWE and MLM participation. However, in contrast with study 1, study 2 found PWE to be associated with *positive* financial outcomes, with delay of gratification appearing to underly this effect. Together, our results demonstrate that an enduring consumer characteristic, PWE, is positively associated with participation in MLMs (studies 1 and 2), with mixed evidence for an association between PWE and financial outcomes. We discuss possible explanations for these mixed findings in the Future Research Direction section.

Table 6
Linear Regression Results for PWE Full Scale Among MLM Participants.

	Financial Outcome					
	B	Std. Error	t	p	LLCI	ULCI
(Constant)	−2.23	0.816	−2.44	0.016	−3.89	−0.668
PWE Full Scale	0.579	0.227	2.32	0.022	0.152	1.03

4.1. Contributions to theory

We believe our work makes two key theoretical contributions. First, while prior literature on MLMs has primarily focused on the business model itself (e.g., Keep & Vander Nat, 2014; Koe Hwee Nga & Wai Mun, 2011; Koehn, 2001), recruitment practices (Koehn, 2001), and the role of personal relationships (Groß, 2008; Koehn, 2001), we extend this body of literature by identifying both that individual differences in general, and PWE in particular, are associated with MLM participation and potentially financial outcomes. We conjecture that these findings may be due to the inherent characteristics of how MLM distributorships are presented to consumers (i.e., as autonomous and effortful), and the inherent desires of individuals higher on PWE (e.g., to be self-reliant), and suggests that future theorizing on consumers in the MLM context may seek to consider both organizational and consumer attributes, as well as their alignment.

Second, the present research broadens our understanding of PWE. While prior research in this area has consistently demonstrated positive outcomes (Meriac et al., 2013; Merrens & Garrett, 1975; Smrt & Karau, 2011) of PWE endorsement, our findings suggest that MLMs may capitalize on the characteristics of PWE consumers to these consumers' potential detriment. Put simply, it is likely that MLM participants will lose or fail to make any money in their endeavor (AARP, 2018; Bhattacharya & Mehta, 2000), and PWE is associated with participating in MLMs (studies 1 and 2) and consequently may be associated with MLM negative financial outcomes (study 1). Study 2 highlights that self-reliance, as well as beliefs about hard work and a strong desire not to waste one's time, may influence these outcomes. Thus, we identify one marketplace context in which PWE may not always be an adaptive characteristic, at least among certain consumers.

4.2. Contributions to practice

The findings herein have implications for three distinct areas of practice: MLM marketers, social marketers, and policy makers. MLM firms may seek to target individuals who are higher on PWE to participate in their marketing activities, based on the consistent finding that PWE was associated with MLM participation. However, it is ambiguous based on our data whether such individuals are apt to be successful financially in these firms, and thus MLM firms should be both cautious and ethical about applying these findings. Additionally, any organization that facilitates business ownership or quasi-ownership (i.e., MLMs, franchises, small business development centers, e-commerce platforms, etc.) would likely have an inherent appeal to individuals with a strong PWE. Marketing messages centered around hard work and autonomy may also be effective at gaining the attention of this population. Organizations hiring for positions with a lot of autonomy or with effort-contingent rewards (e.g., commissions) may be able to similarly target these consumers. Targeting higher PWE consumers is reasonably accessible as PWE is highly correlated with political conservatism (Furnham & Bland, 1983). Digital advertising companies (e.g., Meta's digital advertising platform) very commonly have political data on individuals or areas, making targeting online simple and easy. The approach we took of geographically mapping church data could also be applied in many ways such as: online advertising, outdoor advertising, direct mail, etcetera.

The findings from our research also inform social marketers and MLM-related consumer protection groups (e.g., the Anti-MLM Coalition, Freedom of Mind Resource Center, Pyramid Scheme Alert), who may view these findings as evidence that higher PWE consumers are more vulnerable to MLMs and the deleterious outcomes often associated with them (e.g., Groß & Vriens, 2019; Keep & Vander Nat, 2014). Utilizing

Table 7
Intercorrelations Between Facet-Level PWE and MLM Participation.

		Partic.	SR	M/E	Leisure	CoW	HW	WT
SR	Pearson Correlation	0.135**	–					
	Sig. (2-tailed)	0.002						
	N	515	515					
M/E	Pearson Correlation	−0.043	0.158**	–				
	Sig. (2-tailed)	0.335	0					
	N	515	515	515				
Leisure	Pearson Correlation	0.115**	0.091*	−0.189**	–			
	Sig. (2-tailed)	0.009	0.04	0				
	N	515	515	515	515			
CoW	Pearson Correlation	0.121**	0.361**	0.285**	0.187**	–		
	Sig. (2-tailed)	0.006	0	0	0			
	N	515	515	515	515	515		
HW	Pearson Correlation	0.145**	0.568**	0.204**	0.186**	0.514**	–	
	Sig. (2-tailed)	0.001	0	0	0	0		
	N	515	515	515	515	515	515	
WT	Pearson Correlation	0.215**	0.435**	0.254**	0.247**	0.564**	0.507**	–
	Sig. (2-tailed)	0	0	0	0	0	0	
	N	515	515	515	515	515	515	515
DoG	Pearson Correlation	0.102*	0.283**	0.111*	0.163**	0.426**	0.448**	0.402**
	Sig. (2-tailed)	0.02	0	0.012	0	0	0	0
	N	515	515	515	515	515	515	515

Partic = Participation; SR = Self-Reliance subscale; M/E = Morality/Ethics subscale; L = Leisure subscale; CoW = Centrality of Work subscale; HW = Hard Work subscale; WT = Wasted Time subscale; DoG = Delay of Gratification subscale.
** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Table 8
Intercorrelations Between Facet-Level PWE and Financial Outcomes Among Prior Participants.

		Financial Outcomes	Self-Reliance	Morality/ Ethics	Leisure	Centrality of Work	Hard Work	Wasted Time
Self-Reliance	Pearson Correlation	0.139						
	Sig. (2-tailed)	0.104						
	N	138						
Morality/Ethics	Pearson Correlation	0.047	0.158**					
	Sig. (2-tailed)	0.585	0.000					
	N	138	515					
Leisure	Pearson Correlation	0.152	0.091*	−0.189**				
	Sig. (2-tailed)	0.074	0.040	0.000				
	N	138	515	515				
Centrality of Work	Pearson Correlation	0.089	0.361**	0.285**	0.187**			
	Sig. (2-tailed)	0.297	0.000	0.000	0.000			
	N	138	515	515	515			
Hard Work	Pearson Correlation	0.083	0.568**	0.204**	0.186**	0.514**		
	Sig. (2-tailed)	0.333	0.000	0.000	0.000	0.000		
	N	138	515	515	515	515		
Wasted Time	Pearson Correlation	0.121	0.435**	0.254**	0.247**	0.564**	0.507**	
	Sig. (2-tailed)	0.157	0.000	0.000	0.000	0.000	0.000	
	N	138	515	515	515	515	515	
Delay of Gratification	Pearson Correlation	0.205*	0.283**	0.111*	0.163**	0.426**	0.448**	0.402**
	Sig. (2-tailed)	0.016	0.000	0.012	0.000	0.000	0.000	0.000
	N	138	515	515	515	515	515	515

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

the targeting approaches outlined above, including geographically and through digital advertising tools, would also be relevant for reaching higher PWE consumers for targeted intervention. In particular, the findings here suggest that higher PWE consumers may find *non*-financial claims from MLMs, such as promises of self-reliance and achievement, appealing, and so crafting marketing messages that undermine these appeals could be beneficial. For example, showcasing the ways that a lack of control over product features or quality undermines one's ability to achieve. Future work should directly test the types of social marketing messages and interventions these consumers may best be targeted with.

Finally, are policymakers, who could view this work as helpful in identifying regulatory opportunities. For example, while the FTC regulates and enforces how MLMs portray individual successes associated with their organizations, our research also highlights that some individuals (i.e., those high in PWE) may be attracted to MLMs for *non*-financial claims, such as promises of autonomy and achievement. Our findings suggest that requiring MLMs to disclose elements that undermine the autonomy or achievement of consumers (e.g., the market saturation level in their distribution area) could better enable consumer decision-making. That is, our work suggests that policymakers could focus not just on financial, but also *non*-financial, claims made by MLMs, and consider regulatory attention to these matters as well.

4.3. Future research directions

One curious finding of this work is that, while PWE and negative financial outcomes are associated at the aggregated level, we did not find this same relationship at the individual level. This may be due to the

nature of self-reported data—participants may not accurately remember the negative financial outcomes experienced due to several reasons (e.g., social desirability bias, cognitive dissonance, memory issues, etc.). However, it is also possible that PWE is in fact not associated with negative financial outcomes, that the data in study 1 (which only included those who had confirmed losses of $1000 or more) yielded novel effects, or that there are moderators of this effect. It is also possible that some other higher order factor (e.g., religiosity more broadly) may be driving the observed relationships. Future work should certainly continue to explore the way that individual differences like PWE are, and are not, related to MLM participants' financial outcomes.

In addition to identifying consumers who may be at likelihood of entering an MLM, it is also important to understand when and why individuals exit MLM organizations to properly understand the full scope of participants' experiences. Koehn (2001) notes that leaving an MLM can be "psychologically difficult" (p. 157), partly due to pressure from their "upline" distributors to keep working. However, consumers do, in fact, leave, in some cases from several MLMs. This process could provide meaningful insights into both retention strategies for MLMs, and areas for attention among consumer advocates and policymakers. Thus, future research should examine when, why, and how, MLM participants make their exit, with a particular eye on what factors shape the exit decisions of consumers high on PWE.

4.4. Limitations

While our research had several strengths, it also had limitations. First, study 1 used a proxy for PWE, examined aggregate consumer data, (i.e., where we could not directly match an individual's PWE to their negative financial outcomes experienced), included noise due to measurement imprecision (e.g., church attendance was captured in the state in which attendance transpired, not the state in which the attendee lived), and was constrained to MLM participants who also lost over $1000. While this was augmented by a conceptual replication in study 2, we did find mixed results regarding financial outcomes for which we do not have a clear explanation. Further, while study 2 was able to derive some further insights on MLM participants, the sample size for that subset was smaller ($n = 138$) and many facet-level relationships were marginal and may have emerged in a larger sample with more degrees of freedom. Moreover, this study utilized an online panel which, while providing access to a broad range of respondents (Aguinis et al., 2020) can be susceptible to bot usage, respondent inattention, non-naivety, self-selection, and generalizability (Aguinis et al., 2020; Smith et al., 2016). To mitigate this concern, we used bot and attention checks, and selected a platform (i.e., Prolific Academic) which peer-reviewed research may be superior to others (Palan & Schitter, 2018; Peer et al., 2017); nonetheless, this remains a limitation of study 2. We further note that, given our data was drawn from a population of "gig workers", prevalence of MLM participation was higher than prior work suggests it exists in the population (e.g., 7 %; DeLiema et al., 2021). Given prevalence was not our research question, and does not have direct bearing on out findings, this is unlikely to present meaningful concerns; however, it nonetheless merits note. Finally, we also note that the self-report format of study 2 may have led to issues with under- or over-reporting, which should be fodder for future work.

4.5. Conclusion

Across two studies, including a large FTC place-based dataset and an individual-level survey, we find that PWE is associated with participation in MLMs, with mixed evidence about its relationship with financial outcomes. In our place-based analysis, we find evidence that PWE is positively associated with participation in MLMs, and that PWE predicts more *negative* financial outcomes. However, in a more general sample of individual MLM participants, PWE was associated with both MLM participation and with more *positive* financial outcomes. We further show that PWE, and both hard work and self-reliance, is associated with MLM participation. In so doing, we provide a series of meaningful theoretical and practical implications for a variety of audiences.

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Research involving human participants

IRB approval was obtained prior to conducting all studies in this research. All procedures performed in the studies involving human participants were in accordance with the ethical standards of the institutional research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent was obtained from all individual participants included in the study when applicable. In online studies, participants were informed of their anonymity and ability to opt out of the study when they wished. Additionally, participants were debriefed at the conclusion of the study.

CRediT authorship contribution statement

Katharine Howie: Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Formal analysis, Data curation, Conceptualization. **Rhiannon MacDonnell Mesler:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Ke (Christy) Tu:** Writing – review & editing, Formal analysis, Conceptualization. **Jennifer Chernishenko:** Writing – review & editing, Writing – original draft, Formal analysis.

Declaration of competing interest

The authors declare that they have no conflict of interest.

Data availability

The authors do not have permission to share data.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.actpsy.2024.104409.

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