How Do Health, Social Connections, Housing, Life Values and Trust Matter for Economic Well-Being – A Path Analysis of Abu Dhabi Households

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ABSTRACT

Given the importance and prevalence of well-being research, this study aimed to investigate the relationships between economic well-being and various other well-being factors and associates, including housing satisfaction, subjective health, social connections, feelings of security, life values, and trust in public services, using a path analytic model. We used 40,796 household cases from the second Abu Dhabi Quality of Life Survey conducted in 2019-2020. The data were analyzed using LISREL version 8.8 and SPSS version 19.0. The final path analysis model provided excellent fit-measurement statistics, indicating significant direct associations of all variables with job satisfaction. The model also portrayed indirect associations of subjective health, social connection, and housing satisfaction with job satisfaction with the mediation of income satisfaction. Income satisfaction was significantly associated with subjective health, social connection, and housing satisfaction. Contrary to other factors, personal values negatively affect job satisfaction. Research findings and limitations were discussed in light of international and local literature.

1. Introduction

The Council on Social Work Education (CSWE, 2023) recognizes economic well-being as "having present and future financial security." Such security rests on the ability of individuals, families, and communities to meet their basic needs consistently. Despite its importance, researchers debate the definition and measurements of economic well-being, often suggesting alternative measures that track the contribution of other dimensions of well-being (Berik, 2018; Brown, 2017). Several contending measures and indicators, such as OECD Better Life Index, Genuine Progress Indicator, Happiness Index, and Human Development Index, have been discussed in academic and policy circles (Berik, 2018; Durand, 2013; Shapiro, 2006; Stiglitz, Sen, & Fitoussi, 2009).

Using subjective measures to reflect the quality of life and well-being is suggested by many advocates in the field (Brooks, 2008). Most place the quality of life measurement in the psychological

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realm of overall happiness and satisfaction and stress that such indicators are only definable by individuals and thus could only be measured using surveys targeting these individuals (Gill, 1995; Hagerty et al., 2001). Many also add that using subjective indicators allows the respondents to envision their value relative to all other inputs into their lives, which may be statistically combined to conclude the aggregate population (Diener, Inglehart, & Tay, 2013). A review of common attributes with specific subjective well-being measures among countries looks remarkably like the indicators used to build the most relevant objective measures (Diener, Oishi, & Lucas, 2015). Therefore, employing subjective well-being measures in studies leading to social policy development is a widely accepted practice.

When focusing on elements of economic well-being such as income and jobs, the literature generally stresses the role of several other essential aspects of well-being, including housing, health, social relationships, environment, public services, trust, and personal beliefs (Baheiraei et al., 2015; Berik, 2018; Cohen & Wardrip, 2011; Godin & Kittel, 2004; Hart Research Associates, 2013; Lambiri, Biagi, & Royuela, 2006; Petterson & Albers, 2001; Sortheix et al., 2013). The dynamic and complex relationships between and among these aspects of well-being warrant careful examination and analysis to inform social policies.

This study aims to contribute to the literature pertaining to heads of households in the UAE and broader Arab Gulf region. There is limited research available on job satisfaction specifically for heads of households in this region. Most of the research on job satisfaction has focused on the general working population (Otabi et al, 2004; Zeffane et al., 2008; Randeree et al., 2012; Azeem & Akthar, 2014; Buckner, 2017; Alom et al., 2019; Sawalha et al., 2019). Heads of households may face unique stressors that can impact their job satisfaction, such as balancing work and family responsibilities, financial pressures, and the need for job security to support their families (Valletta, 1999; Bookwalter et al., 2006; Spring, 2013; Chen & Jin, 2017. These factors may also affect their career aspirations, job choices, and work-life balance (Davies & Hinks, 2010; Selin & Davey, 2012; Bialowolski & Weziak-Bialowolska, 2021). In the UAE and Arab Gulf region, the unique challenges and circumstances faced by heads of households did not receive sufficient attention, and the lack of research on job satisfaction for household heads in the UAE poses a gap in our understanding of the wellbeing and workplace experiences of this group.

Therefore, this research aims to address the gap in the literature by focusing on the economic well-being of the heads of households in Abu Dhabi, United Arab Emirates (UAE). It uses path analysis to understand the complex interrelationships between a set of predictor variables, including housing, subjective health and mental health, social connections, safety and security, values and beliefs, and trust in public institutions and the dependent variables of economic well-being represented by income satisfaction and job satisfaction. The path model could highlight the complex interactions and directions between well-being variables, hoping to unveil any ambiguities and complexities to a certain degree.

2. Literature review

Most longitudinal studies identify income and jobs as strong associates of well-being (Cuijpers & Smit, 2002; Danner, Snowdon, & Friesen, 2001; Koivumaa-Honkanen et al., 2000; Steptoe, Wardle, & Marmot, 2005). From broader perspectives, research consistently shows that those with high-income levels report a higher level of life satisfaction and happiness than those with low incomes (Boyce, Brown, & Moore, 2010; Diener & Biswas-Diener, 2002; Diener & Oishi, 2000; Di Tella, MacCulloch, & Oswald, 2003). Such a pattern has been revealed across various nations (Diener & Oishi, 2000). In the UAE and the Gulf Cooperation Council (GCC) countries, for example, Abdulla, Djebarni, and Mellahi (2011) investigated the factors correlated with job satisfaction among Dubai police employees. He found that among a range of intrinsic and extrinsic factors, the most vital positive determinant of job satisfaction was salary and incentives. Shallal (2011) surveyed a sample of female employees in the UAE and observed significant differences between the job satisfaction levels of the high-income and low-income groups. In a study conducted in Saudi Arabia, Kuwaiti, Back, and Wahass (2020) found that salary is the most significant predictor of job satisfaction among faculty members of a higher education institution.

However, empirical results also revealed that the relationship between income and subjective well-being could be a more complex and controversial issue (Boyce, Brown, & Moore, 2010; Easterlin et al., 2010; Easterlin, 2012; Frey & Stutzer, 2002; Ferrer-i-Carbonell, 2005). A national-level study in China suggests that rising household income does not improve happiness and life satisfaction unless social comparison is at play, although it could weaken negative emotions (Yu & Li, 2012). Using two large

nationally representative samples from Britain and Germany, Luhmann, Schimmack, and Eid (2011) concluded that within-person income change is positively but weakly associated with affective and cognitive well-being. Cheung and Lucas (2015) found that while individuals who earned more on average reported higher levels of life satisfaction, the correlation was most substantial for those in their 30s-50s compared to younger or older cohorts. Research also points to the fact that financial obligations could strengthen the association between income and life satisfaction for midlife adults (Shapiro & Remle, 2011).

As evidenced by the literature, job experience is positively correlated with many other aspects of life (Bowling et al., 2010; Godin & Kittel, 2004; Pelfrene et al., 2001; Rain, Lane, & Steiner, 1991; Rode, 2004). Job satisfaction is a significant construct associated with multiple desirable outcomes such as job performance, organizational citizenship behavior, and life satisfaction (Berry & Williams, 1987; Erdogan et al., 2012).

Research stresses that family and social connections are particularly salient aspects of life (Remle, 2011). The study by Rosalyn and Davina (2019) aimed to understand the influence of income on family relationships. North et al. (2008) investigated the relationship between family income and happiness. Their results indicated a positive association between income and family relations. Furthermore, family income moderates the association between family social support and concurrent happiness. Hypothesizing the relationship between social connectedness and money happiness, Richards (2015) shows that connectedness significantly affects satisfaction with financial stress. Similarly, Gadermann et al. (2016) revealed the mediating role of income, which indicated that social relationships with family or friends were the strongest predictors of life satisfaction.

Associates, 2013; Vera-Toscano & Ateca-Amestoy, 2008). Housing satisfaction and certain housing features such as adequacy and affordability are significant predictors of income well-being, and those with more available income for basic living necessities reflect more positive well-being signs (Diaz-Serrano, 2009; Hu, 2013; Vera-Toscano & Ateca-Amestoy, 2008; Wardrip, Williams, & Hague, 2011). However, such significant associations were not found in several studies of different residential settings (Li & Wu, 2013; Zhu & Shelton, 1996). Nguyen et al. (2018) found that housing satisfaction was positively associated with household income but negatively related to education. Meanwhile, many researchers reported that those more satisfied with their housing were more likely to show satisfaction with their jobs and work environment (Henderson, 1987; Sikorska-Simmons, 2006).

Studies in different countries show that stable housing is a foundation for family economic well-being (Cohen & Wardrip, 2011; Hart Research Healthy housing promotes physical and mental health (Knöchelmann et al., 2020). Good health is significantly dependent on having homes that are safe and in a safe neighborhood (Wardrip, Williams, & Hague, 2011). On the other hand, poor housing quality results in health problems (Nguyen et al., 2018). Henderson (1987) examined the relationship between housing features, job features, and satisfaction. Results pointed to the association of housing satisfaction with many factors, including salary and job satisfaction. Knöchelmann et al. (2020) found that changes in income and housing satisfaction resulted in a small association with changes in self-rated health.

Research also identifies the association between socioeconomic status and health (Walsh, Stephens, & Moore, 2000). Many studies investigated the relationship between income, subjective financial well-being, and health (Arber, Fenn, & Meadows, 2014), revealing a positive, independent association between health and income and subjective financial well-being (Cialani & Mortazavi, 2020). In addition, the association between subjective economic status and subjective health is also affirmed irrespective of one's socioeconomic situation (Präg, 2020). There is growing evidence that suggests the direct association between job satisfaction and working adults' physical and mental health (Cooper, 1999; Kenny et al., 2000). Faragher, Cass, and Cooper (2005) provided a meta-analysis, suggesting that job satisfaction is an essential factor influencing workers' health. Many studies reveal that work beyond regular hours, job security, and technology requirements affect workers' health (Cooper, 2001; Paoli, 1992). Furthermore, women in lower income categories, along with difficult job experiences, are more likely to show higher levels of stress (Baheiraei et al., 2015; Petterson & Albers, 2001).

Values could significantly dictate how satisfied or successful one is in work or life environment (Brown, 2002). Research in China indicated that job satisfaction varies across individuals and their beliefs and values (Lan et al., 2013). Several studies in different cultures also showed that values in general and

work values, in particular, are associated with job satisfaction (Busque-Carrier, Ratelle, & Le Corff, 2022; Knoop, 1994; Rouse et al., 2020; Sortheix et al., 2013; Unanue et al., 2017).

Personal and community-wide safety is a significant part of the quality of life for residents. Social services and infrastructure designed to protect safety and security may impact the well-being of residents (Blomquist, Berger, & Hoehn, 1988; Ryan et al., 2016). Infrastructure could reflect the quality of physical and organizational structures necessary for the operation of the services and facilities for the effective functioning of the economy and thus becomes a positive component of quality of life (Nzaku & Bukenya, 2005; Ryan et al., 2016).

Income inequality is negatively associated with trust (Barone & Moretti, 2016; Elgar & Aitken, 2011; Knack & Keefer, 1997; Oishi, Kesebir, & Diener, 2011). For example, Graafland and Lous (2019) used panel analysis to show that dissatisfaction with income increased inequality in life satisfaction, and both registered a significant negative association with social trust. Art & Erdil's (2019) study indicated a high correlation between job satisfaction and social and organizational trust. Güçer and Demirdağ (2014) also found a significant correlation between perceived organizational trust and employees' level of job satisfaction. As far as institutional trust is concerned, Liou, Sylvia, and Brunk (1990) demonstrated that institutional trust and other non-work factors like social equity were positively correlated with job satisfaction.

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2.1 Theoretical approach

This study utilizes the ERG theory (Alderfer, 1969) to guide discussion of the results. This theory was developed by Clayton Alderfer, a management theorist, and psychologist, in the late 1960s as a modification of Maslow's hierarchy of needs theory. The ERG theory is a motivational theory that explains the human needs and how they influence the behavior of individuals in the workplace. The ERG theory has wide applications in organizational settings, and specifically in the area of job satisfaction (Caulton, 2012).

ERG stands for Existence, Relatedness, and Growth. According to Alderfer, human needs can be categorized into three levels: 1) Existence Needs: These are the basic needs that an individual requires to survive, such as food, shelter, and clothing; 2) Relatedness Needs: These are the needs for social interaction and interpersonal relationships, including love, belonging, and acceptance; and 3) Growth Needs: These are the needs for personal development and self-fulfillment, such as achievement, creativity, and learning.

There are multiple aspects of ERG theory that makes it appealing for application in the current study. First, Alderfer also proposed that individual needs can be satisfied in any order, and if one level of needs is not being satisfied, individuals may regress to a lower level of needs. This is known as the frustration-regression principle (Lăzăroiu, 2015). Second, Alderfer suggested that ERG theory is more flexible than Maslow's hierarchy of needs theory, as it allows for the satisfaction of multiple needs simultaneously. These characteristics seem to be compatible with the nature of the study were the correlations between multiple variables are being investigated simultaneously, and there is a possibility for some needs to be measured as higher than others. Overall, Alderfer's ERG theory provides a framework for understanding the complexity of human needs and motivations in the workplace and can be useful in understanding income satisfaction and job satisfaction. Therefore, the ERG theory will guide

the discussion of this study's results about job satisfaction among household heads will be discussed with regard to the ERG theory.

3. Study design

The study utilized information gathered during the Abu Dhabi Quality of Life Survey's second cycle in 2019/2020 (Department of Community Development, 2022). The survey instrument was developed by DCD in collaboration with Statistics Center Abu Dhabi and was made available in Arabic, English, and six other Asian languages. The study's sample included residents from all three regions of Abu Dhabi, and the survey links were distributed through various means, including phone calls, messengers, emails, social media, and publicity appearances to encourage participation. The online means of distribution facilitated reaching respondents, and a total of 72,481 individuals responded to the survey. This study utilizes a subsample of 40,796 respondents who identified as heads of households. The variables explored are detailed in the next section.

3.1 The variables

Many scholars supported using single indicators instead of a composite indicator to measure well-being, given several theoretical and measurement considerations (Durand, 2013; Stiglitz, Sen, & Fitoussi, 2009). The current study constructed the income satisfaction factor using the following variables: satisfaction with household income, household income change, ability to pay necessary expenses, frequency of unspent money, and job security. Likewise, the job satisfaction factor has the following components: satisfaction with job benefits, job compensation, career advancement, and overall job satisfaction.

The housing dimension consisted of housing conditions and overall housing satisfaction. The subjective and mental health dimension included five variables: self-rated health, frequency of feeling downhearted or depressed, calm and peaceful, pressed for time, and having lots of energy. The safety and security dimension reflected the following four variables:
- Feeling protected and safe in Abu Dhabi
- Feeling safe while using the internet
- Feeling safe when walking alone at night
- Having the ability to obtain rights through legal channels

The social connection dimension included four variables: quality time spent with family, satisfaction with relationships with other people, satisfaction with family life, and satisfaction with the balance between job and home life. Trust in public organizations included trust in five systems - health, police, education, courts, and the media. The life values dimension covered five beliefs: religious commitment, financial returns, suitable work environment, maintaining family ties, and respecting norms and traditions. Finally, the living environment dimension is comprised of six variables:
- The quality of drinking water in the faucet at home
- Quality of air in the area of residence
- Level of noise pollution
- Number of public parks or greenery in the area of residence
- Availability of sports/exercise facilities
- Satisfaction with the current surrounding living environment

All items were measured on a 5-point scale. Most items were positively worded and negatively worded items were reverse-coded. For the final analysis, data were standardized.

3.2 Pre-analysis

Given that the Abu Dhabi Quality of Life survey included fourteen dimensions with more than 150 items, we utilized factor analysis (FA) and other methods for variable reduction. The FA has unique theoretical underpinnings and assumptions which could be used in different circumstances. The central assumption here is that a good factor analytic solution would yield individual factors comprising several items, but all representing a single factor or dimension. Further, we assume that each item's loading could represent how strongly that item is associated with the underlying factor. FA solutions usually yield low and acceptable loadings that might represent items unassociated with the factor (DiStefano, Zhu, &

Mîndrilã, 2009; Gorsuch, 1983). Items thus are combined to calculate an index or composite variable using a weighted linear combination of the items, with the factor loadings representing the strength of each item's contribution to the factor (Comrey & Lee, 1992). The weights are between -1 and 1. It should be noted that some researchers calculate the linear combination for each factor but ignore weights (Hair et al., 2006). Factor-based scores could be reasonable if the loadings are all similar (Kawashima & Shiomi, 2007).

3.3 Analysis methods

The final analysis method utilized path analysis, a form of multiple regression statistical analysis that is used to examine the relationships between a hypothesized dependent variable and two or more independent variables. For example, path analysis could be utilized to estimate the magnitude, significance, and directions of connections between the variables in the model (Vasconcelos, Almeida, & Nobre, 1998). In addition, the analyses produce and present a visual diagram representing the relationship between variables in the model. The path model was tested through LISREL version 8.8.

SPSS version 19.0 was used for descriptive statistics. It was also used when conducting some difference tests, i.e., analysis of variance and t-tests at a significance level of 0.05.

4. Results

Table 1 shows the demographic profile of respondents and the heads of households who participated in the survey. The majority of them were males (71.4%) and married (86.1%). About 40.3% held a bachelor's degree, with 18.2% holding a master's degree and 16.6% with a secondary school certificate. Regarding age distribution, 45.6% belonged to the 35-44 age group, followed by 25.6% falling in the 25-34 age group. Non-Emiratis made up the majority (44.6%). Most respondents lived in the Abu Dhabi region (73.1%).

The correlation matrix of all variables considered for the path model is shown in Table 2. Almost all coefficients are significant at the 0.01 level. The most significant coefficients for the income satisfaction construct are associated with job satisfaction, social connection, health, and life values. Considering job satisfaction, the highest correlations are observed regarding social connection, health, and trust in public institutions.

4.1 Testing the composite variables before conducting the path model

To evaluate the results of each measurement model, we first tested the internal consistency of each dimension. Table 3 details factors, their associated Cronbach Alphas, and the total variances explained. Cronbach alpha should be greater than 0.70 to achieve the reliability of the measurement model (Nunnally, 1978). Factor scores range from 0.703 to 0.878. All values are above the limits required. Table 1.
Profile of respondents.

Gender	Percentage
Male	71.4%
Female	28.6%
Marital status	
Married	86.1%
Single	7.0%
Divorced	5.0%
Separated	0.7%
Widowed	1.1%
Education level	
Illiterate	0.7%
Below secondary school	6.5%
Secondary school	16.6%
Post high school training certificate	4.1%
College diploma	10.6%
Bachelor's degree	40.3%

Master's degree	18.2%
Doctorate degree	2.9%
Age	
24 or less	1.8%
25-34	25.6%
35-44	45.6%
45-54	20.9%
55-64	6.1%
Nationality	
Emirati	44.6%
Non-Emirati	55.6%
Region of residence	
Abu Dhabi	73.1%
Al Ain	23.0%
Al Dhafra	4.0%

Table 2.

The correlation matrix.

	HOUSE	INCOME	JOBS	HEALTH	SAFETY	CONNECT	TRUST	ENVIR.	BELIEF	RECOM.
HOUSE	1									
INCOME	.402**	1								
JOB	.321**	.501**	1							
HEALTH	.286**	.379**	.386**	1						
SAFETY	.166**	.107**	.226**	.195**	1					
CONNECT	.301**	.357**	.411**	.562**	.257**	1				
TRUST	.192**	.156**	.338**	.259**	.480**	.337**	1			
ENVIR.	.359**	.030*	.118**	.327**	.346**	.378**	.409**	1		
BELIEF	.009	-.156**	.060**	.066**	.296**	.112**	.267**	.191**	1	

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

Table 3.

Variables considered, factors extracted, Cronbach alpha and factor scores.

Factors	Variables	Factor scores
Housing (Cronbach α=0.720), variance explained is 77.81%		
HOUS1	Housing condition	0.8782
HOUS2	Overall housing satisfaction	0.8602
Income (Cronbach α=0.705), variance explained is 74.79%		
INCOM2	Satisfaction with household income	0.8485
INCOM4	Household income change compared to last year	0.8094
INCOM3	Ability to pay necessary expenses	0.7734
INCOM5	Frequency of having money unspent	0.7101
INCOM8	How secure is your job/main business	0.7067
Jobs (Cronbach α=0.857), variance explained is 72.33%		
JOBS2	Satisfaction with job benefits	0.8716
JOBS7	Overall job satisfaction	0.8690
JOBS3	Satisfaction with job compensation	0.8349
JOBS8	Satisfaction with career advancement	0.7698
Subjective health and mental health (Cronbach α=0.719), variance explained is 71.40%		
HELTH1	Subjective self-rated health	0.7650
HELTH3	Last 4 weeks, often felt downhearted and depressed (R)	0.7412
HELTH4	Last 4 weeks, often felt calm and peaceful	0.7235
HELTH5	Last 4 weeks, often fell rushed or pressed for time (R)	0.7164

HELTH6	Last 4 weeks, often felt having a lot of energy	0.7025

Safety and security (Cronbach α=0.770), variance explained is 73.09%

SAFTY1	In Abu Dhabi - I feel protected and safe	0.8452
SAFTY2	In Abu Dhabi - I feel safe using the Internet	0.8397
SAFTY3	In Abu Dhabi - I feel safe when walking alone at night	0.7675
SAFTY4	In Abu Dhabi - I have ability to obtain rights through legal channels	0.7313

Social connections (Cronbach α=0.733), variance explained is 71.29%

CONCT1	Amount of quality time spend with family	0.8396
CONCT2	Satisfaction with relationships with other people	0.7733
CONCT3	Satisfaction with family life	0.7442
CONCT4	Satisfaction with balance between job and home life	0.7333

Trust in public institutions (Cronbach α=0.825), variance explained is 70.41%

TRUST1	Health system	0.7958
TRUST2	Police	0.7902
TRUST3	Education system	0.7683
TRUST4	The courts	0.7574
TRUST5	The media	0.7291

Most important personal beliefs (Cronbach α=0.838), variance explained is 70.41%

BLIEF1	Religious commitment	0.8618
BLIEF12	Financial return	0.8646
BLIEF15	Suitable work environment	0.8222
BLIEF2	Maintaining family tie	0.8221
BLIEF3	Respecting norms and traditions	0.7662

Confirmatory factor analysis was conducted for each of the composite variables. Results in table 4 show that all fit statistics indicate acceptable composites. The RMSEA values are all significant (below 0.05). The values of Chi-squares/degrees of freedom are below the recommended value of 3.0 (Schumacker et al., 2016).

Table 4.
Fit statistics (Confirmatory factor analysis of each dimension).

Dimensions	Variables	Chi/*D.F*	RMSEA	NFI	NNFI	CFI	GFI	Correlated Error covariances
Housing	2	-	-	-	-	-	-	-
Income	5	2.889	0.0251	0.999	0.996	0.999	0.999	3
Jobs & work	4	2.501	0.0426	0.999	0.996	0.999	0.999	1
Health	6	2.994	0.0491	0.980	0.952	0.981	0.993	3
Safety	4	2.559	0.0489	0.999	0.994	0.999	0.999	1
Connection	4	3.120	0.0556	0.997	0.980	0.997	0.998	1
Trust	5	3.207	0.0562	0.991	0.970	0.991	0.992	2
Beliefs	7	3.459	0.0574	0.991	0.980	0.991	0.987	4
Environment	6	-	-	-	-	-	-	-

4.2 Path analysis results

The initial path model considered all composite variables. However, adding the environment measure to the path model provided t-values of 1.228 and 1.183 with income satisfaction and job satisfaction, respectively. Therefore, it was eliminated from further path analysis considerations.

As shown in Table 5, the final path model produced an RMSEA of 0.00321, with all fit indexes above the thresholds recommended by experts and the minimum being 0.9883 for the incremental fit index (IFI). Table 6 presents the standardized coefficients and t-values for the path analysis. Path analysis produced a model incorporating eight composite factors (Figure 1). The direct, indirect, and total associations between other composites with the two outcome variables of income satisfaction and job satisfaction are summarized in Table 7. More specifically, the following results could be observed:

- Three composite variables are directly and indirectly associated with job satisfaction: housing satisfaction, subjective health and mental health, and social connections.
- The income satisfaction composite variable is explained by four variables in the model: subjective health and mental health, values/beliefs, housing, and social connections. The strongest direct association (0.183) is with social connections.
- All path coefficients are positive, except for the path from values/beliefs to income.

Table 5.

Goodness-of-fit statistics.

Degrees of Freedom	3
Maximum Likelihood Ratio Chi-Square	3.748
Root Mean Square Error of Approximation (RMSEA)	0.00321
Normed Fit Index (NFI)	0.9947
Non-Normed Fit Index (NNFI)	0.9905
Comparative Fit Index (CFI)	0.9988
Incremental Fit Index (IFI)	0.9883
Root Mean Square Residual (RMR)	0.000366
Goodness of Fit Index (GFI)	0.9967

Table 6.

Path analysis (standardized coefficients and t-values).

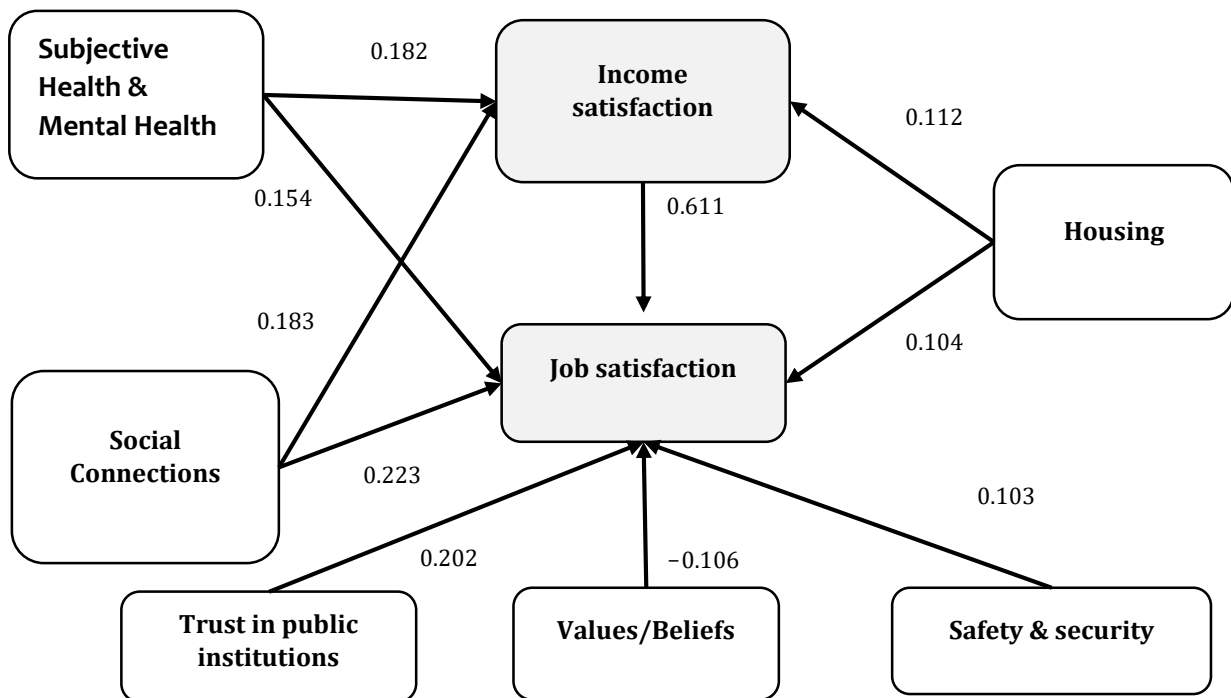| Path from	Path to	Standardized coefficients	t-values
Housing	Income	0.112	42.24
Health	Income	0.182	26.007
Social connection	Income	0.183	31.200
Beliefs	Income	-0.106	-14.033
Income	Job	0.611	61.919
Housing	Job	0.104	9.518
Health	Job	0.154	14.500
Safety & security	Job	0.103	5.543
Social connection	Job	0.223	23.858
Trust in public institutions	Job	0.202	25.095

Figure 1. The path model of statistical associations between the dimensions.

Table 7.
Direct, indirect, and total associations.

From	To	Direct	Indirect	Total
Housing	Income	0.112	-	0.112
Housing	Job	0.104	0.0685	0.173
Subjective health & mental health	Income	0.182	-	0.182
Subjective health & mental health	Job	0.154	0.111	0.265
Social connections	Income	0.183	-	0.183
Social connections	Job	0.223	0.112	0.335
Values/Beliefs	Income	-0.106	-	-0.106
Values/Beliefs	Job	-	-0.070	-0.070
Safety & security	Income	-	-	-
Safety & security	Job	0.103	-	0.103
Trust in public institutions	Income	-	-	-
Trust in public institutions	Job	0.202	-	0.202
Income	Job	0.611	-	0.611

5. Discussion

According to Alderfer's ERG theory, job satisfaction for household heads can increase when they feel that their needs for growth, relatedness, and existence are met in their environments. These three needs are grouped into three categories: Existence (Housing, Income, Safety & Security, Trust in Public Institutions), Relatedness (Social Connections), and Growth (Subjective Mental Health, Values and Beliefs). In the following discussion, the associations found between between job satisfaction and other variables will be discussed in accordance with ERG's premises, wherever possible.

In general, the significance of income and job satisfaction as significant determinants of well-being has been examined by many analysts (Erdogan et al., 2012; Rode, 2004). The strongest association between income satisfaction and job satisfaction reported by this Abu Dhabi study is consistent with the results of numerous studies showing that workers with higher income satisfaction reported significantly higher job satisfaction (Abdulla, Djebarni, & Mellahi, 2011; Bowling et al., 2010; Grund & Sliwka, 2001; Rain, Lane, & Steiner, 1991). Moreover, given that the income satisfaction measure used in this study represents a subjective evaluation of income, it offers evidence to support the strong effect of relative income on job satisfaction (Clark & Oswald, 1996; Takei, Sakamoto, & Murase, 2009). These associations are consisted with the ERG theory, where higher fulfilment of simultaneous Existence needs contributes to higher job satisfaction among household heads.

Furthermore, our findings demonstrate that composite scores of economic well-being represented by income satisfaction and job satisfaction are significantly associated with several other well-being factors in direct and indirect ways and confirm the essential role of these factors in the ERG theory framework. Social connections' significant effect on job satisfaction and income satisfaction should be highlighted. In a recent study on working hours in Abu Dhabi, Badri et al. (2022) pointed to the significance of social connections as a contributor to well-being. Workers who are more satisfied with their Relatedness needs like social and family relationships also tend to have a higher level of job or income satisfaction (North et al., 2008; Rosalyn & Davina, 2019; Shapiro & Remle, 2011) or social connectedness acts as a source of support or resilience (Berry & Williams, 1987; Gadermann et al., 2016; Richards, 2015). The current study also reveals that income satisfaction, which is an Existence need, has a mediating role between social connection and job satisfaction, which is consistent with the ERG theory's premises that needs can be strengthened or intensified. It is also consistent with research findings revealing the role of social support in reducing work stress and improving job satisfaction (Baruch-Feldman et al., 2002; Slavković, Sretenović, & Bugarčić, 2022; Visweswaran, Sanchez, & Fisher, 1999).

While there is no association between the workforce's feeling of security and trust in public institutions and income satisfaction, both contribute significantly to job satisfaction and, thus, partially to economic well-being. Looking at it from an ERG perspective, the associations between trust in public

institutions and job satisfaction could indicate the success of the various rules, policies, and regulations set by the concerned public institutions to foster an environment that fulfils existence needs of household heads (Artar & Erdil, 2019; Güçer & Demirdağ, 2014). While the results are consistent, it should be noted that the current study stresses job satisfaction and trust in public institutions and services, whereas other studies focus more on organizational trust (Artar & Erdil, 2019; Lambiri, Biagi, & Royuela, 2006; Liou, Sylvia, & Brunk, 1990), which may lead to nuanced interpretations. In the Middle East region, a study by Shams and Esfandirari Moghaddam (2015) demonstrated positive correlations between job satisfaction and multiple dimensions of organizational trust, including lateral, vertical, and institutional trust. Therefore, the findings of this study corroborate previous findings in the same area. It is also worth noting that positive correlations between institutional trust and subjective well-being measures are established in the literature (Hudson, 2006). Therefore, exploring associations between trust in public services and subjective well-being in follow-up studies seems worthwhile.

This Abu Dhabi study reveals that Existence needs like housing satisfaction, subjective health, and mental health are strongly associated with income and job satisfaction. Again, such results are expected within the ERG framework, especially with the growing evidence of a high association between poor socioeconomic status and health or mental health (Arber, Fenn, & Meadows, 2014; Baheiraei et al., 2015; Präg, 2020; Walsh, Stephens, & Moore, 2000), a direct association of working adults' physical and mental health with job-related features and satisfaction (Cooper, 1999; Faragher, Cass, & Cooper, 2005; Kenny et al., 2000), and the significance of housing in family economic well-being and health (Cohen & Wardrip, 2011; Hart Research Associates, 2013; Knöchelmann et al., 2020; Li & Wu, 2013; Nguyen et al., 2018).

Last, the significant effect of personal values and beliefs on job satisfaction is observed. We acknowledge that values may reflect different things to different people and in different cultures, and the literature generally suggests the importance of values and beliefs on job satisfaction in other cultures (Lan et al., 2013; Knoop, 1994; Unanue et al., 2017; Rouse et al., 2020). In this study, it is important to address that the Values and Beliefs variable may be loosely connected to the ERG's Growth dimension, which may limit applications. More specifically, we found that religiosity is associated with job satisfaction, as spiritual beliefs may influence attitudes toward work and personal accomplishment (Lal et al.,, 2020). However, this study establishes a negative association with job satisfaction concerning the perception of work environments and warrants further investigation. The ERG framework accommodates this negative association as it is possible for Growth needs to negatively impact job satisfaction through the frustration-regression principle. A study conducted in Saudi Arabia by Elamin and Alomaim (2011) provided evidence that a higher perception of fairness in the workplace was positively associated with job satisfaction for both foreign and Saudi employees. There seem to be deeper cultural and axiological factors affecting job satisfaction in the Emirate of Abu Dhabi.

6. Conclusions

The analysis produced quantified contributions of the various predictor variables to working adults' economic well-being. The final path model produced and identified a system of nested relationships among the variables. Those identified significant predictors of economic well-being could provide vital insights into the Abu Dhabi labor market mobility, workplace relationships, and well-being in general. With regard to theoretical contributions, the ERG theory facilitated the interpretation of the associations found between job satisfaction and other variables in the study.

For the government, the model and its output can be used to design and predict future work systems in Abu Dhabi that enhance workers' well-being and productivity. Such a general grasp of job satisfaction offered by this study allows for calculated changes in public policy to increase job satisfaction. Public policymakers and employers may use the job satisfaction model to design more effective policies and practices to retain employees and create a better working environment. Knowing that social connections and health matter the most for working adults' economic well-being, workplace management and operating systems need to be re-engineered to have more social elements.

We must caution that the method used only clarifies correlation and indicates the strength of a specific relationship and thus might not be suitable for making causal assumptions. For future studies and to fully understand the direction of potential causality, researchers could consider designing compatible experimental studies where participants could be randomly assigned to treatment and

control groups. In addition, this study intended to provide a preliminary macro-level model of the factors contributing to individuals' income well-being. Future studies could factor in demographic variables and more household and workplace variables to generate a fuller picture of determinants of economic well-being. While the findings from this study support the overall framework of the ERG theory, there is room for improvement as the Growth dimension was represented by a single variable (Values and Beliefs) which may not have captured the Growth dimension sufficiently. The choice of variables was limited based on the dataset's existing variables, a future study might involve these dataset variables alongside other specific measures for ERG's dimensions to build convergent validity.

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