Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Statistics

Master's Thesis

Constructing a composite Indicator to Measure Quality of Life in the Selected Region

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

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DIPLOMA THESIS ASSIGNMENT

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Constructing a composite Indicator to Measure Quality of Life in the Selected Region

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Objectives of thesis

The thesis aims to investigate the intricate relationship between dimensional (composite) indicators and their collective influence on the Quality of Life (QoL) experienced by individuals, considering a diverse range of perspectives. By analyzing the effects of composite indicators across various dimensions such as Family, Health, Community, Security, Infrastructure, and Socio-Political Attitudes, the thesis seeks to contribute to a comprehensive understanding of how these interconnected dimensions collectively shape individuals' QoL.

Partial aims:

1. To examine the individual and collective effects of composite indicators within each dimension on the Quality of Life.

2. To analyze the interconnections between different dimensions and their influence on the overall QoL.

3. To identify potential variations in the impact of composite indicators on QoL across diverse demographic groups.

4. To provide insights into policy implications for enhancing Quality of Life by addressing specific dimensions.

Methodology

The thesis will be divided into two parts. The first part will concentrate on the published literature currently accessible on the different measures of Quality of Life and its dimensions.

The second part will focus on the data collection and data analysis process. The data collection process will be managed through a questionnaire survey, measuring the satisfaction level in different dimensions using the Likert – Scale method. The data will be analyzed using selected parametric and nonparametric methods, especially methods for categorical data analysis.

The proposed extent of the thesis

60-80 pages

Keywords

composite indicator, dimension reduction, happiness, lack of stability, quality of life, satisfaction

Recommended information sources

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Declaration

I declare that I have worked on my master's thesis titled **"Constructing a composite Indicator to Measure Quality of Life in the Selected Region " by** myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2024 _____

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Constructing a composite Indicator to Measure Quality of Life in the Selected Region

Abstract

This thesis focuses on the development of a composite indicator to measure the quality of life in a selected region. Quality of life is a multidimensional concept that encompasses various aspects of well-being, including economic prosperity, social cohesion, environmental sustainability, and overall satisfaction with life.

The research begins by exploring the theoretical framework of quality of life and composite indicators, drawing upon existing literature and methodologies. It then proceeds to identify relevant indicators and data sources for measuring quality of life in the selected region.

Through a systematic approach to indicator selection and weighting, the thesis constructs a composite indicator that captures the multidimensional nature of quality of life. The indicator is designed to provide a holistic and comprehensive assessment of well-being in the region, taking into account the diverse needs and priorities of its inhabitants.

The practical implementation of the composite indicator is discussed, including data collection, normalization, aggregation, and interpretation. The thesis also addresses methodological considerations and challenges encountered during the construction process. Overall, this research contributes to the field of quality-of-life assessment by providing a robust framework for constructing composite indicators in regional context of Kyrgyzstan.

Keywords: Composite indicator, dimension reduction, happiness, lack of stability, quality of life, satisfaction

Konstrukce kompozitního indikátoru pro měření kvality života ve vybraném regionu

Abstrakt

Tato práce se zaměřuje na vývoj složeného ukazatele pro měření kvality života ve vybraném regionu. Kvalita života je vícerozměrný koncept, který zahrnuje různé aspekty blahobytu, včetně ekonomické prosperity, sociální soudržnosti, environmentální udržitelnosti a celkové spokojenosti se životem.

Výzkum začíná zkoumáním teoretického rámce kvality života a složených ukazatelů, přičemž vychází z existující literatury a metodik. Poté pokračuje identifikací relevantních ukazatelů a zdrojů dat pro měření kvality života ve vybraném regionu.

Prostřednictvím systematického přístupu k výběru a vážení ukazatelů práce konstruuje kompozitní ukazatel, který zachycuje vícerozměrnou povahu kvality života. Ukazatel je navržen tak, aby poskytoval holistické a komplexní hodnocení blahobytu v regionu a zohledňoval rozmanité potřeby a priority jeho obyvatel.

Je diskutována praktická implementace složeného ukazatele, včetně sběru dat, normalizace, agregace a interpretace. Práce se rovněž zabývá metodologickými úvahami a problémy, které se vyskytly během procesu konstrukce.
Celkově tento výzkum přispívá do oblasti hodnocení kvality života tím, že poskytuje robustní rámec pro konstrukci kompozitních ukazatelů v regionálním kontextu Kyrgyzstánu.

Klíčová slova: Kompozitní ukazatel, redukce dimenze, štěstí, nedostatek stability, kvalita života, spokojenost

Table of content

1. Introduction

Quality of Life (QoL) stands as a multidimensional concept encompassing various aspects of an individual's well-being and satisfaction with life. Extending beyond material possessions and economic indicators, it embraces physical health, psychological well-being, social relationships, environmental factors, and overall life satisfaction. As such, QoL serves as a comprehensive measure of individuals' subjective experiences and perceptions of their lives.

The concept of QoL has garnered increasing attention in both academic research and public policy, reflecting a growing recognition of the importance of holistic well-being in promoting individual and societal flourishing. Understanding the factors that contribute to QoL is essential for designing effective interventions and policies aimed at enhancing overall well-being and quality of life for individuals and communities.

In this study, the aim is to explore the multidimensional nature of QoL and its relatedness to various aspects of life, including health, workplace dynamics, family relationships, financial satisfaction, social well-being, social infrastructure, and security. By examining these dimensions in relation to QoL, a deeper understanding of the factors that influence individuals' perceptions of their quality of life is sought, ultimately informing strategies for promoting well-being.

By examining various dimensions in relation to QoL, a comprehensive understanding of the factors that contribute to individuals' perceptions of their quality of life is sought. Through empirical analysis and statistical modeling, the most significant determinants of QoL are identified, informing strategies for promoting well-being and enhancing overall quality of life for individuals and communities.

By gaining a deeper understanding of these dimensions and their impact on QoL, targeted interventions and policies aimed at improving overall well-being and enhancing quality of life for individuals and communities can be developed.

2. Objectives and Methodology

2.1 Objectives

This thesis aims to investigate the complex relationship between dimensional (composite) indicators and their collective influence on Quality of Life (QoL) experienced by individuals, considering diverse perspectives. Through analysis of composite indicators across dimensions such as Family, Health, Community, Security, Infrastructure, and Socio-Political Attitudes, Financial, the research seeks to contribute to a comprehensive understanding of how these interconnected dimensions shape individuals' QoL.

The study pursues several partial aims:

1. To examine the individual and collective effects of composite indicators within each dimension on Quality of Life.
2. To analyze the interconnections between different dimensions and their impact on overall QoL.
3. To identify potential variations in the impact of composite indicators on QoL across diverse demographic groups.
4. To provide insights into policy implications for enhancing Quality of Life by addressing specific dimensions.

Through rigorous analysis and synthesis of data, this research offers valuable insights into the complex dynamics underlying individuals' QoL. By addressing these dimensions comprehensively, policymakers can formulate more effective strategies to improve overall well-being and enhance quality of life for diverse population in Kyrgyzstan.

2.2 Methodology

This thesis is divided into two main parts aimed at comprehensively exploring the concept of Quality of Life (QoL) and its dimensions.

The first part delves into a thorough review of published literature on various measures of QoL and its dimensions. By examining existing research, this part aims to provide a comprehensive understanding of the current landscape of QoL assessment and the diverse dimensions it encompasses.

In the second part, the focus shifts towards the data collection and analysis process. A questionnaire survey will be conducted to gather data on individuals' satisfaction levels across different dimensions of QoL, employing the Likert-Scale method (See Table-1). Subsequently, the collected data are analyzed by using a combination of parametric and nonparametric methods, with a particular emphasis on techniques for categorical data analysis.

Table 1: Likert-Scale measures

Absolutely disagree	Disagree	Don't Know	Agree	Absolutely disagree
5	4	3	2	1

Source: Bryman (2016).

Through this structured approach, the thesis aims to contribute to a deeper understanding of QoL assessment and its practical implications. By integrating insights from literature review with empirical data analysis, the research seeks to provide valuable insights for policymakers, practitioners, and researchers working towards enhancing overall well-being and quality of life.

3. Theoretical part

The Quality of Life, in short "QOL" is a broad concept that attracted much attentions for the past 2 decades. Such research papers as" (Engel, 1981: Watt, 2007: Awad and Voruganti, 2000).

3.1 Quality of Life

Quality of life (QoL) is an individualized viewpoint that emerged during the financial boom post-World War II, leading to higher expectations of happiness, well-being, and emotional satisfaction among individuals (Awad and Voruganti, 2000). American President Lyndon Johnson introduced the term "Quality of life" during the 1964 by addressing 'Great Society' to emphasize that life encompasses much more than simply financial security (Meeberg, 1993).

Quality of life is a subjective concept that varies across individuals and can be described variously by many writers. It can be defined as the satisfaction of needs (Hornquist, 1990), fulfilment of desires (Campbell et al., 1976), or achievement of life goals. These standards are ambiguous and fail to assist in determining what truly makes up an individual's Quality of Life. QoL does not have a universally agreed-upon description nor definition, although most authors acknowledge it as a diverse and complicated concept (Bowling, 2001).

Farquhar (1995) created a system of taxonomies to categorize quality of life concepts between 'expert' or professional concepts and construct interpretations.

There are three sorts of expert interpretations. International definitions of quality of life provide a broad overview based on happiness but do not go into its specific components or how it may be put into practice. Campbell et. el. (1976) defined quality of life as an individual's subjective assessment of their life events. Abrams (1973) defines Quality of Life (QoL) as the level of happiness or discontent experienced by individuals in various areas of their life.

Secondly, component classifications break down quality of life into distinct elements or dimensions, which makes them more appropriate for empirical studies. Patterson (1975)

identified essential characteristics of quality of life as health, function, comfort, feelings, and economy. Essentially, analyzing quality of life by considering both subjective and objective aspects in this thesis, from the dimensional perspective.

Thirdly, precise descriptions emphasize individual aspects of quality of life. For instance, the term 'associated with health quality of life' refers to the quality of life specifically in connection to health.

The World Health Organization (WHO, 1995, p.1405) defines quality of life as an individual's subjective evaluation of their living circumstances in respect to their cultural and societal values, personal goals, aspirations, and worries. The World Health Organization's definition aligns with the first and second categories of the taxonomy that describe emotions and views of life in respect to the elements of Quality of Life. The above definition characterizes quality of life (QoL) as a multi-faceted idea that encompasses physical health, mental health, social connections, individual opinions, and surroundings. It emphasizes that the quality of life is objective.

3.2 Health in Relation to QoL

The idea of Quality of Life (QoL) encompasses dimensions linked with both well-being and non-health aspects, including political, cultural, and sociological factors. Medical advancements and the transition from viral to chronic illnesses have resulted in a rise in life expectancy, which is prompting a movement in the medical field towards enhancing quality of life. Health related quality of life (HRQoL) refers to a more specific aspect of a person's quality of life that is connected to health. HRQoL is influenced by the bio-psychosocial viewpoint on health and has become a significant aspect of contemporary medicine and practice during the last twenty years (Awad et al. 1997). Due to the interconnectedness of individuals and their environment, both HRQoL and non-HRQoL intersect. Poor traffic control is an aspect of non-health-related quality of life but may contribute to incidents that cause oral injuries, impacting health-related quality of life.

Diener et. el. (1999) noted that subjective well-being isn't a singular concept but encompasses both positive and negative emotions, overall evaluations of fulfilment in life, and happiness with specific areas of life. These categories encompass health and

functionality, mental and religious well-being, family dynamics, social interactions, and financial factors. An individual's life happiness is influenced by their enduring values and choices, which evolve in response to shifting circumstances and surroundings. Wilson and Cleary (1995) noted that overall assessments of life satisfaction might not be linked to tangible conditions. One person could have a rotting tooth without it significantly impacting their quality of life, while another individual with the same issue may have a substantial decline in their overall quality of life. This variety arises from variations in individual and external variables.

3.3 Brunner and Marmot Model

Brunner and Marmot (1999) introduced a framework in Figure 1 that explained the biological processes in a social environment, linking medical and general population views on health. The social frameworks on the left side of the figure impact health and happiness on the bottom through each of the three primary theories of health inequality. Economic conditions impact health both directly and indirectly through the societal and occupational environments. These variables influence psychological aspects and activities associated to wellbeing. Health is influenced by childhood incidents, cultural background, and genetic variables. The health outcomes are influenced by the geographical location and historical context of the population. This additionally corresponds to the life cycle theory of health disparities.

Factors such as psychological strain and social connections, which are utilized to account for health disparities, fall under the 'psychological' and 'social context' categories of the framework, accordingly. The paradigm indicates that cognitive and social elements are impacted by the 'social system' instead of functioning independently.

Newton and Bower (2005) utilized this method to examine numerous interconnected causes that result in overall health. The framework identifies causes for illness both on the society and personal levels, emphasizing the significance of social mechanisms above individual actions.

The concept is valuable in oral epidemiology since it promotes study on the connections across the social context, environment, and health (Newton and Bower, 2005). This is

significant since a considerable amount of present study on health focuses mostly on understanding diseases based on lifestyle habits and behaviors. Investigation on social and psychological processes remains scarce. Studies investigating the connections between psychological stress and disease, feelings of harmony, and hygiene habits demonstrate the increasing focus on the impact of psychological factors on welfare disparities.

Figure 1: Brunner and Marmot Model
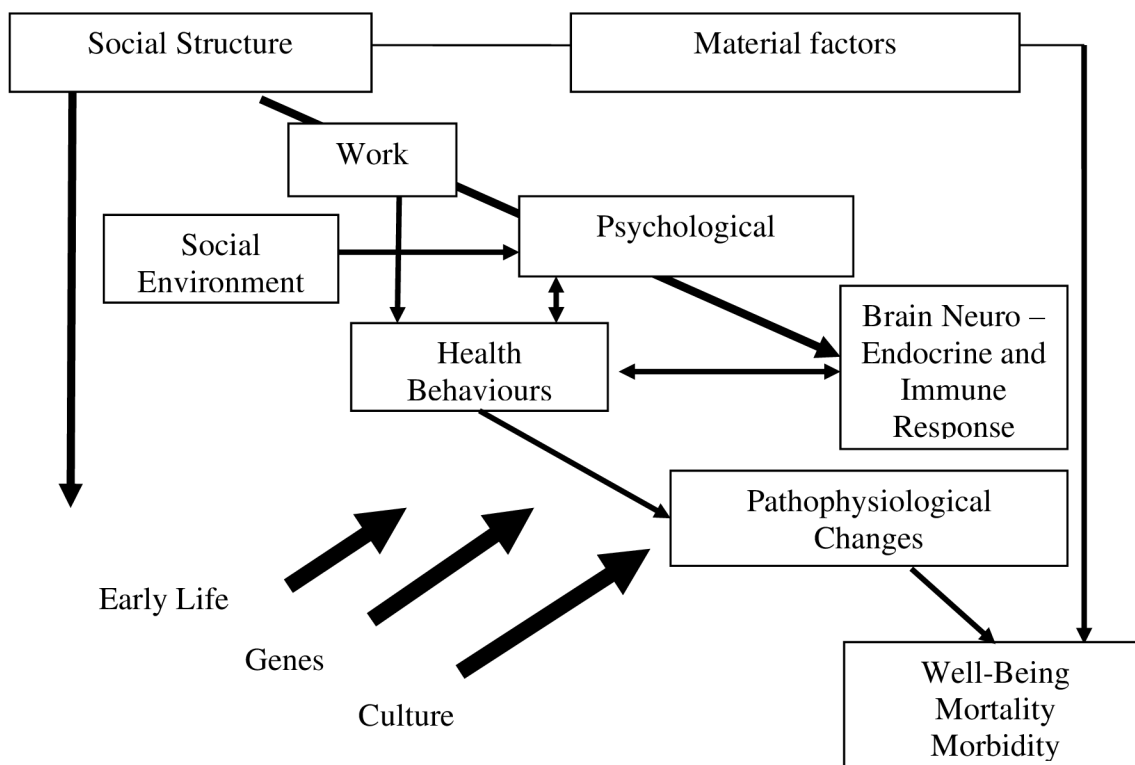
Source: Brunner and Marmot (1999)

3.4 Workplace in Relation to QoL

According to Boccuzzo and Gianecchini (2015), the term "job quality" refers to the variety of aspects which are associated to jobs and employment which have a way of favorably and significantly influencing the well-being of individuals. According to Eurofound (2012), it is a representation of the fulfillment which an employee obtains through their position, that is dependent on the qualities of the position (personal traditions), and it consists of the elements and traits of the employment which satisfy the demands of the employees (unbiased traditions). In the study of Ficapal-Cusí et. el. (2018) provides a concise summary of these elements by establishing work performance as a general sense of fulfillment that encompasses both objective indicators, including financial security and appropriate

interactions via the social and cultural surroundings, and subjective variables such as physical, psychological, and social well-being. According to Muñoz de Bustillo et al. (2009), job satisfaction is a notion that encompasses both employment performance and career effectiveness. On the other hand, the second category relates to the methods in which the field of a job itself and the circumstances that stay with it can have an effect on the health of employees (for example, freedom, physical circumstances, risk, and cultural environment). The first category covers all of the factors that have an opportunity to influence workers' health in relation to their job circumstance (for example, the type of agreement, hours of work, salary, and social advantages).

These definitions are supported by Stefgen et al. (2015), who point out that a high standard labor is a sense which link the disparity across job satisfaction and labor health. Overall, they concur with the above definitions. Other researchers (Santero-Sanchez et al. 2015) use the expressions "job quality" and "quality of work" as references to another idea that focuses around the (objective) job description as well as the work surroundings.

Taking into consideration the impartial features of job opportunities, employee features, the relationship among worker traits and job demands, and the personal assessment (position fulfillment) of these factors by the particular employee, the European Commission (2001) defines quality in work (better employment opportunities) as an objective and multifaceted theory. This definition applies to more satisfying employment. An excellent job is an adjective that is connected to earnings as a monetary payment, to professional status as social standing, as well as fulfillment with work as subjective mental criteria, according to Bang and Lee (2006). Job fulfillment is included in the definition of an excellent profession that they propose.

Job fulfillment may be defined as "a general sense regarding the position or as a correlated cluster of emotions regarding different elements or features of the employment" (Spector, 1997). Although there are scientists who suggest job fulfillment as a feasible proxy of quality of work life (QWL), such Simões et al. (2015), it is important to note that job fulfillment is just one of the numerous potential results of QWL. It is not sufficient by its own to provide a comprehensive overview of QWL. As a result, QWL has been suggested to be a much wider theory compared to employment fulfillment (Carpita & Golia, 2012; Sojka, 2014).

Based on Ferraro et al (2018) characterizes this as a theory that was developed with the intention of fostering both economic and development of people in the formal as well as the informal economies. According to Ferraro et al. (2017), fair employment is associated with interesting employment and morals that assure essential standards and values in the workplace via social interaction among those who engage in the process of making choices about employment. In simple terms, excellent employment is tied to fulfilling employment. According to the European Foundation for the Improvement of Living and Working Conditions (Eurofound, 2012), the idea of fair employment is comparable to the idea of decent employment in terms of its principles, yet it encompasses a wider range of demands than the effectiveness of work (Eurofound, 2012).

The challenges associated with defining a common Quality of Work Life (QWL) stem primarily from its multifaceted character (Schnalzenberger et al., 2014). Any index used to evaluate Quality of Work Life (QWL) must include the several characteristics that influence jobs and careers. These dimensions must be defined, taken into account, and combined depending on their effect on QWL (Muñoz de Bustillo et al., 2009). QWL must be assessed employing an integrated method that combines objective and subjective data and facts, as suggested by Díaz-Chao et al. (2016) and Hurley et al. (2012). Two types of viewpoints are distinguished in the literature: an objective perspective related to occupational surroundings traits and job attributes like safety, design, technology, management structures, organizational procedures, and wages; and a personal viewpoint concerning staff member preferences and feelings of fulfillment, including joy, views, motivation, dedication, and excitement (Díaz-Chao et al., 2016). The QWL assessment techniques might utilize an objectivist strategy, a subjectivist method, or an approach that is multifaceted. Job fulfillment may be described as a comprehensive emotion regarding working conditions or a collection of views regarding different parts of the employment (Spector, 1997). Some studies suggest that job fulfillment can serve as a proxy for Quality of Work Life (QWL), incorporating both objective job aspects and subjective employees' beliefs. QWL is a larger paradigm than job fulfillment since the possible results of QWL alone are not enough to fully describe it. This idea is supported by several researchers (Sojka, 2014).

To ensure a comprehensive understanding, I primarily utilize the term "quality of working life" throughout this study, employing all previously mentioned terms (excluding "job

satisfaction") interchangeably in our literature selection and review. "Working life" denotes the holistic experience of employees within work settings and the equilibrium between professional and personal realms that may impact their well-being. Quality of Working Life (QWL) encompasses factors related to job characteristics, the harmony between work and personal life, and the evaluations made by workers regarding these aspects. My objective is to compile a diverse range of composite indicators for evaluating Quality of Life (QoL), incorporating both objective and subjective viewpoints, as well as passive and active analyses. This methodology aims to scrutinize existing research and establish connections among various terminologies and the fundamental characteristics and elements constituting different composite measures. Providing a comprehensive overview facilitates the selection of suitable indicators for both myself and participants, tailored to their specific job experiences. This approach, integral to my research methodology, involves structuring such indicators based on the studies covered, while exploring theoretical aspects of Quality of Life across different dimensions, with "Employment" being a focal point of investigation. Eventually, the most recent research done by Bednarska (2014) considers the individuals (internal) and external aspects, See Figure - 2, and the rest of the variables align with the studies of (Díaz-Chao et al, 2016: Ferraro et al, 2018: Ferraro et al, 2018).

Figure 2: Conceptual framework of relations between quality of work life and employee lifetime value
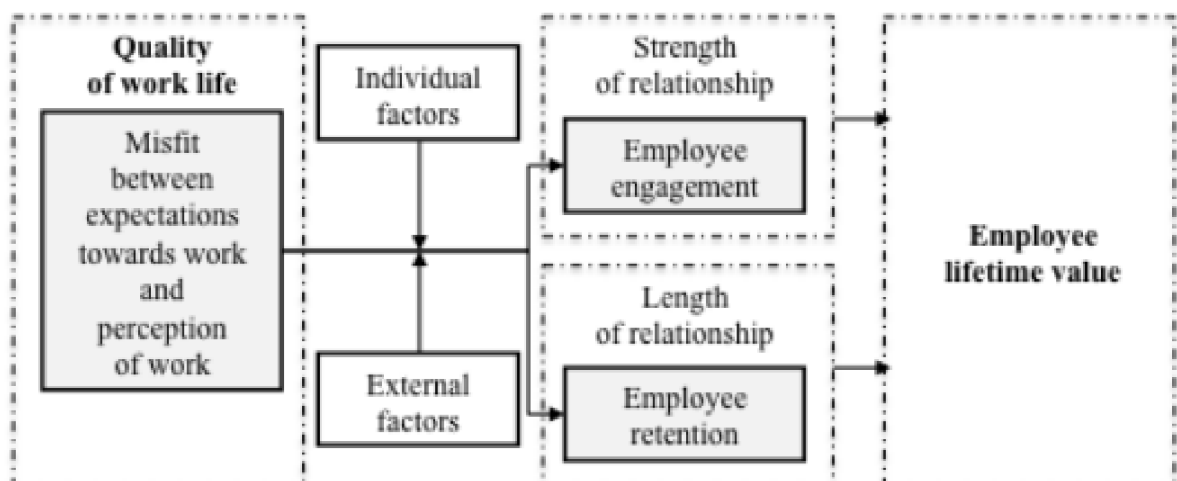
Source: Bednarska (2014)

3.5 Family in Relation to QoL

Murray Bowen created the family system concept in the 1960s and 1970s, drawing from his therapeutic observations regarding families affected by emotional disease. (Brown, 1999) The concept has considerable relevance in family therapy by defining a family as a collective emotion that employs methodical analysis to explain the intricate relationships between relatives inside the framework of a family. The theory of families views the family as an integrated, self-monitoring dynamic system where every member possesses feelings and possess the ability to affect one another as well as the family in its entirety. Simply said, mutual impact and dependency are fundamental aspects of the relationships between relatives (Gardiner & Grace, 2012). Turnbull et al. (2015) created an extended family approach drawing on family system theory to examine families that have kids with autism.

Turnbull et al. (2015: 6) describe family as a group of two or more individuals who consider themself members of a family and fulfill the usual responsibilities associated with families. These individuals might or might not have a family or marital connection and might or might not typically reside in the same household, from a practical point of view. In practice, the concept of family is constrained by quantity and shape. This demonstrates the varying effects of a child's impairment on the family. In big households, there are typically more individuals accessible to offer assistance and supplies for kids with disabilities. However, this part of the concept isn't considered in the practical part. Turnbull et al. (2015) claims the following:

The idea of family in connection to Quality of Life (QoL) is a crucial element in theoretical frameworks that study individual well-being. Family is widely recognized as a key factor influencing quality of life because of its many functions in offering social support, emotional bonding, and a feeling of inclusion. - Turnbull et al. (2015: 11).

Tunbull et al. (2015) further provides detailed explanation of why family is important in human's life's, such as:

- Family members commonly provide essential social support, including emotional, instrumental, and cognitive aid. Supportive family interactions are linked to increased subjective well-being and total life satisfaction.
- The family structure is crucial in meeting fundamental human needs including friendship, closeness, and security. Meeting family obligations enhances individuals' overall life satisfaction.
- Positive family connections marked by warmth, trust, and communication foster a feeling of closeness and belonging. Robust familial connections are associated with improved psychological well-being and general contentment with life.
- Family relations might influence people' capacity to deal with stress and challenges. Positive family situations can help reduce the impact of stress, whereas unhealthy family dynamics can worsen stress and lower quality of life.
- The importance of family in influencing quality of life differs depending on cultural and economic variables. Cultural norms, beliefs, and customs impact family dynamics and views on well-being.

The concept of family systems is based upon three underlying principles. The input-output hypothesis states that family features serve as sources in the family engagement procedure, resulting in the emergence of interpersonal activities as outputs. Family features communicate with the framework to create results, which in turn impact the family's performance. Family activities provide observations regarding family interactions, leading to modifications in household features and the family lifespan period. The second presumption is the belief that the family structure is a holistic entity which cannot be comprehended by focusing just on individual elements or subsystem. The final presumption is the belief that borders are present between relatives. Family barriers are shaped by interactions across relatives as well as external forces, leading to variations in how closed or open individuals are to other individuals besides family (Zuna et al., 2014: 32).

Zuna et al. (2014) presented a unified model of FQOL about ten years ago to clarify the inner and environmental elements influencing modifications to household results. This hypothesis is expressed as:

Population trends, characteristics, views, and family dynamics influence Family Quality of Life (FQOL) as well as collaborate with human being and family-level assistance, services, and behaviors in order that determine FQOL. Separately or jointly, the indicators of the framework lead to the end result known as Family Quality of Life (FQOL), generating new family strengths, desires, and goals. These then become new inputs that re-enter the model, creating an ongoing feedback cycle during the lifespan. - Zuna et al. (2014: 269).

The common framework of Family Quality of Life (FQOL) aims to elucidate the reasons behind and mechanisms by which FQOL differs across households with kids. (Chiu et al., 2013). The concept introduces external aspects of the environment, inner dynamics within families, and qualities that potentially impact Family Quality of Life (FQOL). Zuna et al. (2014: 262-266) identified four areas of factors in the unified framework for FQOL: parent-unit factor, personal member of the family principles, performance ideas, and systematic ideas.

Figure 3: Research on Family with Young Children
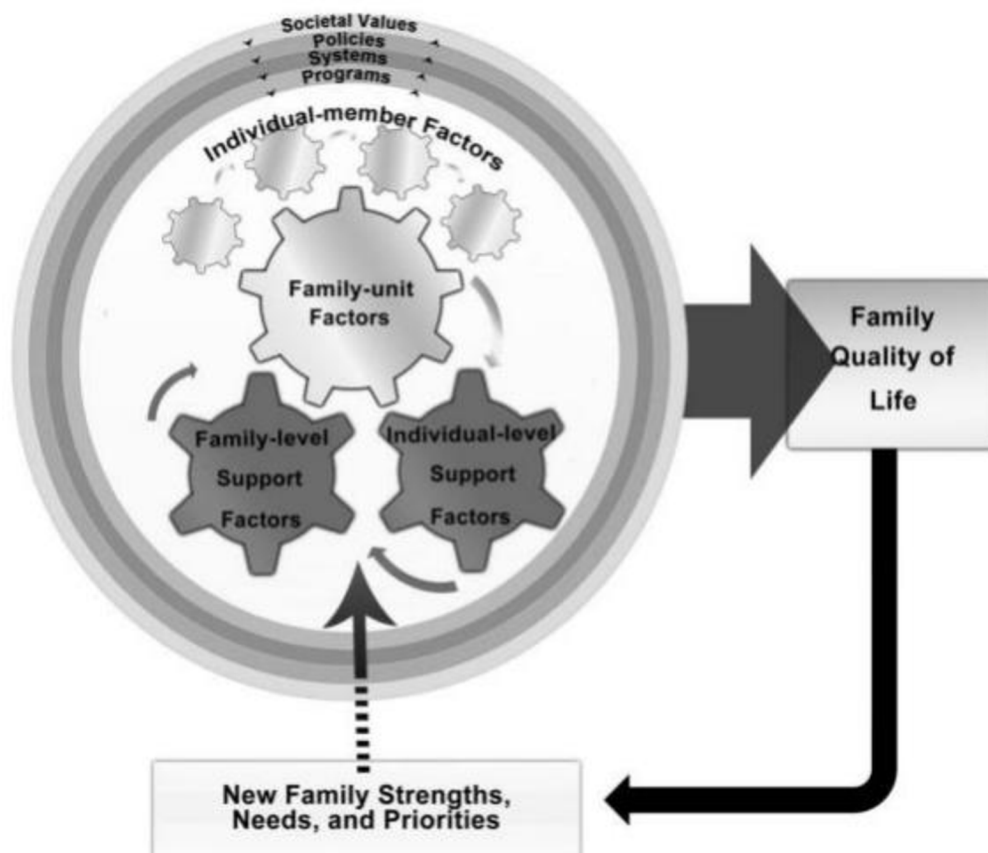
Source: Chiu et al. (2013)

3.6 Finance in Relation to QoL

The phrases monetary wellness and financial stability are sometimes used interchangeably, as they can serve as suitable indicators of an individual's financial wealth. The concept of economic well-being has changed from basic contentment or pleasure with the monetary things or financial circumstances to a more sophisticated understanding of the non-material aspects of a person's financial condition. This encompasses contentment with monetary earnings and savings, recognition of chances, capability to make a living, feeling of material safety, and perception of the justice of the incentive distribution system (Strumple, 1976). William (1983) proposed that economic well-being consists of both material and non-material components related to a person's financial circumstance. William has used monetary income, distributive agreement, and the perceived sufficiency of income to assess his financial health. Porter and Garman (1993) demonstrated that perceived monetary well-being is associated with a greater quality of living, savings, investments, retiring, willingness to handle financial crises, and concerns about debt repayment. Joo and Grable (2004) identified many indicators of a sound financial situation. Financial wellbeing encompasses objective financial position, financial fulfillment, subjective judgments, and economic behaviors (Joo, 2008). This study utilized Joo's financial health framework, which includes financial joy, financial behavior, and subjective impression of economic position.

3.6.1   Financial Satisfaction

Financial satisfaction is a crucial aspect of financial well-being, encompassing contentment with both tangible (objective) and intangible (subjective) financial circumstances (Joo & Grable, 2004). Hira & Mudenda (1999) suggest that financial contentment may be assessed by considering individual earnings, savings accounts, and accessible assets for achieving prospective financial objectives. The degree of contentment or discontentment over one's present financial condition in relation to their individual financial management practices. Plagnol (2011) describes financial happiness as a crucial element of general satisfaction with life and well-being. Well-being refers to an individual's overall happiness, pleasure, or joy with their current circumstances (McDowell, 2010). The more advanced an individual's skills in handling their finances are, the greater effect it will have on their fulfillment with their present financial condition. With regard to Joo and Grable (2004), financial happiness

is positively correlated with age, income, and education. To assess financial well-being, individuals must consider personal finances and financial contentment. Financial stress, financial solvency, financial awareness, education, and marital tension are factors that might impact financial contentment. Financial contentment and its influence on quality of life have been the focus of significant investigation in recent years. Being content with one's financial situation can boost personal satisfaction and overall life contentment (Toscano et al. 2006). Conversely, facing financial challenges and feeling dissatisfied with a person's standing can lead to anxiety and sadness. According to Joo (2008), economic fulfillment is the subjective evaluation of a person's financial condition as a result that feels financially healthy, positive, and worry-free. Previous studies have shown that budgetary pleasure is influenced by several aspects including monetary behavior, financial stress levels, income, and monetary contentment (Xiao et al. 2009).

Individual debt is also associated with economic pleasure. Excessive debt leads to financial unhappiness (Santoso & Sukada, 2009). Moreover, the degree of financial happiness was inversely related to the probability of obtaining financial recommendations, but directly related to the probability of requesting advise on savings or investment decisions (Robb et al., 2012). Previous empirical and theoretical studies indicate that financial happiness is affected by demographic and social-economic variables, in addition to financial management strategies (Plagnol, 2011). Plagnol (2011) argues that economic happiness is linked to both economic and non-economic factors, including resources, loans, and the size of the household. Ng & Diener (2014) discovered a substantial link between pleasure with economic elements of life and wellbeing, which was greater in wealthy nations compared to those with lower incomes. According to The Sun (2011), most public personnel in Malaysia use 50 % of their income to repay debts. In 2009, 1086 public officials were claimed to have filed bankruptcy and had their salary withheld for installment payment, as stated in The Sun in 2011.

3.6.2 Financial Behavior

Financial behavior is an additional element of financial wellbeing. Financial well-being is linked to spending behaviors including managing debt at a sustainable level (Gutter & Copur, 2011). Financial behavior includes fundamental personal economic responsibilities including loans, insurance, savings, and investments. Financial habits encompass beneficial

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and suggested methods in managing finances, as outlined by Robb & Woodyard (2011). Xiao (2008) suggested that typical financial behavior include activities concerning cash, credits, and savings planning. Failure to effectively handle financial affairs will result in substantial long-term detrimental effects for individuals and societal groups (Perry & Morris, 2005). Inappropriate spending behaviors lead to significant individual financial issues. Financial mismanagement has negative repercussions that extend beyond an individual's personal and professional life to damage their family and whole work environment. The behavior index may be assessed based on methods for managing money such credit management, personal financial management, money management, and purchasing abilities. Garman & Forque (2006) and Xioa (2008) assert that budgeting should include both short - and long-term strategies, salary and credit management, insurance purchases, living expenses, banking products and services, and investments to ensure future financial stability.

In addition to this, Nye and Hillyard (2013) discovered indicated higher earnings, an improved education, a bigger property base, and better levels of literacy were all associated to understanding of finances and spending habits. According to Albeerdy and Gharleghi (2015), families possess a significant influence on the spending habits and education of their children and other household members. In point of fact, solid economic behavior can have a favorable impact on saving for retirement, savings in general, credit management, and risk management. People that feel a higher level of self-assurance in their financial expertise tend to participate in more profitable activities (Robb & Woodyard, 2011), and as a result, they feel more satisfied with their financial situation. Furthermore, having a fundamental understanding is linked with more effective financial habits, including making preparations for retiring and saving money for it (van Rooijet, 2011), participating in stock markets (Christelis et al., 2010), and diversification a person's investment (Abreu & Mendes, 2010).

Joo (2008) argues that personal perceptions include financial attitudes and financial expertise. Joo's viewpoint is in agreement with Godwin and Carroll (1986), who argue that a person's economic well-being is influenced through their knowledge and attitudes towards financial matters, as discussed before. Various factors influence an individual's subjective experience, such as stress over finances, economic anxiety or views regarding debt, and positivity. A financial viewpoint has a substantial impact on subjective perspectives. Economic strain may lead to considerable challenges in individuals' life, affecting their

private well-being, family connections, and professional performance. Archuleta et al. (2013) performed a study that revealed a significant link between debts and mental health issues including depression and anxiousness in individuals. Furthermore, a study conducted by Norvilitis et al. (2006) found a correlation between debts and reduced disposable income, as well as an elevation in general anxiety levels. Shih and Ke (2014) determined that a person's financial conduct is highly impacted by their economic viewpoints based on various research. Robb and Woodyard (2011) found that personal monetary judgments had a stronger impact on financial actions than actual understanding of finances. Robb and Woodyard (2011) discovered that while there is a limited correlation across objective financial knowledge and subjective trust in finances, both factors influence behaviour. So, as you can see in Figure 4 beneath, the research's recommended model was based on Joo's (2008) financial health structure, which includes three dimensions: financial happiness, spending habits, and personal impression of financial position.

Figure 4: Financial model
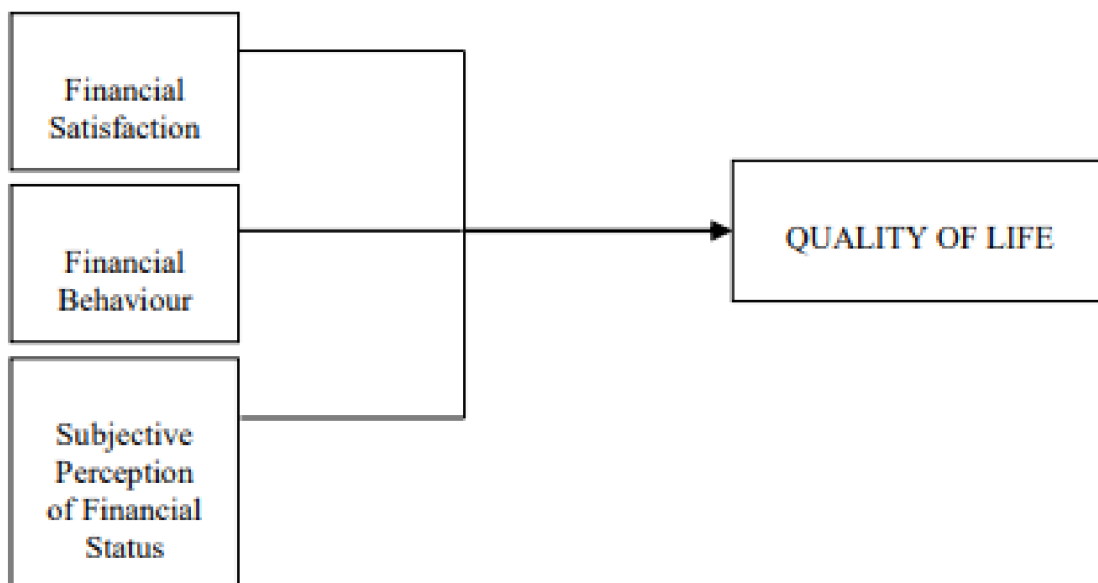
Source: Adapted from Joo (2008)

3.7 Social Well – Being in Relation to QoL

Corey Keyes, a social researcher, developed a theoretical framework to study social well-being, based on Carol Ryff's mental health theory (Ryff & Keyes, 1995). Keyes (1995) defines social well-being as a person's subjective evaluation of how they live and relationships in the community they live in. Social wellbeing involves creating and

sustaining significant connections between people and organizations on local and global scales. People mostly evaluate the worth of interactions subjectively based on their own experiences (Cicognani, et. al. 2014). Psychological well-being and social health are separate but closely related ideas. Joshanloo and Park (2018) found that social fitness can predict a person's future health status, although subjective wellbeing is not as effective in predicting social well-being.

The results confirm the theory of self-determination by demonstrating that basic cognitive requirements, especially the desire for connection, come before individual wellbeing. Wellbeing theories and measures commonly highlight positive connections and engagement with society as key factors for measuring thriving (Hone et al. 2014).

These intersections highlight the significance of social relationships for one's well-being. There has been a disagreement regarding how to define and assess social welfare. One perspective is to regard it as an aspect of personal well-being within the PERMA[1] model, whereas another viewpoint sees it as a distinct concept and external factor which impacts health according to Cicognani et al. (2014).

Figure 5: PERMA Model, modified.

PERMA – BASELINE MODEL (wellbeing measurement tool: PERMA-Profiler with 23 items)			
Positive emotion (P)			
Engagement (E)			
Positive relationships (R)			
Meaning (M)			
Accomplishments (A)			
PERMA+ (wellbeing measurement tool: PERMA-Profiler+Health Omnibus Survey HOS)	PERMA+H (wellbeing measurement tool: PERMAH Workplace Survey)	PERMA+V (concept only)	PERMA+4 (wellbeing measurement tool: Positive Functioning at Work PF-W)
(+) Optimism, Physical Activity, Nutrition and Sleep	Health (H)	Vitality (V)	Physical Health, Mindset, Work Environment, Economic Security

Source: Iasiello et. al (2017).

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[1] PERMA is a short form for Positive Emotions, Engagement, Relationships, Meaning and Accomplishment

3.7.1 Advantages of Positive Relationship

The social interactions' both quantity and quality can impact mental wellbeing and physical well-being in both the short and long term. Studies indicate that intimate relationships have a substantial impact on the mental health of young adults and mature adults (Gómez-López, Viejo, & Ortega-Ruiz, 2019), and that assistance from colleagues is linked to enhanced adaptability (Secor et. al. 2017).

Relationships are acknowledged as a great resource for important, interpersonal, and psychological assistance, that can improve entire family support (Amati et. al. 2015). Research has shown a direct relationship among the quantity (number of interactions) and quality (happiness) of relationships and persons' general life satisfaction (Amati, Meggiolaro, Rivellini, & Zaccarin, 2018).

Having reliable colleagues to confide is associated with increased subjective well-being, but having many random individuals around may result in decreased subjective happiness (Powdthavee, 2008).

Studies demonstrate the importance of having a diverse range of social relationships along with the depth and quality of such relationships. Furthermore, the connections among positive interactions, health, and wellbeing may be explained via three paths as outlined by Umberson & Karas Montez in 2010:

- **Behavioral**
  Relationships with friends and partners can impact dietary behaviors and habits, ultimately affecting overall health and lifespan.
- **Psychosocial**
  Social support may decrease stress and improve emotional and psychological wellness, leading to favorable effects on health habits and physical health.
- **Physiological**
  Positive relationships may improve cardiovascular, immunological, and endocrine functions, potentially impacting long-term health and lifespan.

3.8 Social Infrastructure in Relation to QoL

Social infrastructure has a significant role in fulfilling fundamental social requirements and fostering the growth of a community and its surroundings (Frolova et al., 2016). Efficient and long-term growth of social infrastructure guarantees social safety, multigenerational relationships, and stability in society. Focus on a specific area in the sustenance process of humanity and the territorial placement of social infrastructure elements demonstrates the independence of municipal government regarding regional problems (Frolova et al., 2016).

Social infrastructure is a multifaceted system that integrates the functions of organizations, institutions, and municipal departments to provide the fundamental demands and objectives of the residents. The primary variables influencing the formation of social infrastructures are political, social, economic, cultural, and religious factors (Frolova et al., 2016). Political issues such as laws, rules, and other legislative processes are crucial for the development of social infrastructure.

Hoxha et al. (2014) discovered that political influences significantly influence the opinions of both citizens and regional developers, potentially hindering the development of social infrastructure. Social determinants define the level and standard of living of the people, which in turn influence the demands of social groupings for developing social infrastructure. The social effect of infrastructure is influenced by their whole lifespan, including design, building, operation, and waste (Sierra et al. 2017). Boge et al. (2018) identified that key elements in early-phase development that impact facilities' perceived usefulness and long-term earnings include strategies that enhance environmental sustainability, life-cycle costs (LCC), facility management (FM), flexibility, and attractiveness.

Design of building and social facilities during the initial planning phases is crucial. Boge and Salaj (2017) discovered that focusing on social infrastructure in the initial design stages of the construction industry substantially enhances the future significance of the construction or constructed surroundings for people and society as a whole. Salaj et al. (2018) discusses the opportunity for facilities management (FM) to play a greater part in developing new areas to create attractive and healthy environments of outstanding standards for living, working, and leisure. Thus, it is essential to carefully plan the initial phases of developing

the social infrastructures followed by prioritizing maintenance and facility management (Salaj et al. 2018).

Economic considerations refer to the overall financial conditions that influence the allocation of resources in the administration of social infrastructure. The region's sustainable social infrastructure advancement is driven by its strong economic growth, conducive expenditure climate, and positive labor movement balance. This leads to increased investment attraction, improved quality of life, and a higher demand for services. Social and technological progress in today's world led to higher demands for the operation and quality of social infrastructure, which is closely linked to financial stability in a region (Gureva et al. 2016). Another factor contributing to economic development is the aggregation of physical assets within a certain area (Runenko et al. 2016). Social infrastructures consist of public services including education, medical care, repair, postal services, firefighting services, and additional essential services, in along with physical infrastructure. Well-developed social infrastructure which fulfills the needs of residents leads to a superior standard of life. In contrast, shortcomings in social infrastructure can give rise to financial and socioeconomic difficulties that severely influence the well-being of communities (Vaznoniene, 2015). Providing basic facilities is crucial for enhancing people's standard life (Vaznoniene, 2015).

3.9   Security in Relation to QoL

Abraham Maslow's hierarchy of needs is well recognized at both the psychological and societal levels. The lower levels encompass fundamental requirements including physiological and security demands, while the higher levels include wants related to belonging, respect, and self-fulfillment. Individual needs are organized in a hierarchy according to Maslow's theory (1943), See Figure – 7. Basic needs arise from a deficiency of essential requirements for existence, whereas greater requirements are connected to our efforts to enhance and elevate our standard of living. Security is felt when life, health, or property is at risk and necessitates meeting the demands outlined in the security categories, see Figure 6 for details.

Figure 6: Quality of Life from the need's perspective

possession (economic need)	wellbeing (psychological need)
Quality of life	
health (state of being-related need)	security (existence and development need)

Source: Gierszewski (2018: 5).

- public, common and legal security,
- health security,
- social security.

According to Maslow (1943), fulfilling the aforementioned requirements is essential for higher demands for growth. Security is achieved if a person is free from fear. Security is a fundamental requirement for all individuals, and its absence hinders the fulfillment of other requirements. According to Maslow's hypothesis, humans can have numerous needs simultaneously, but one need often takes precedence over the others. Therefore, a need may be defined as the subjective feeling of lacking specific objects or situations essential for safe living, free from fear, and enabling the unrestricted development or performance of certain activities in society, ultimately enhancing quality of life. Security may be categorized as a basic need that, when fulfilled, allows for personal growth and the emergence of higher-level demands that impact quality of life.

Figure 7: Maslow's hierarchy


Source: Maslow (1943).

Gierszewski (2018: 13) identified security as the most fundamental human requirement among seven categories. Security, like other wants, generates specific individual responses that are considered sociocultural responses within the social process. Security needs are met by defense, which forms the foundation for the unrestricted growth of the security topic. Upon further analysis, it is evident that security concerns fall under the category of cultural responses related to seeking protection and maintaining health, which support the natural drive for existence.

When trying to define the extent of quality-of-life security as a type of security, it is done by referring to the fragmentary personality of the phenomena. It is inherently challenging to define the extent of analyzing the intersection of security and quality of life. Quality of life may be defined as the unrestricted advancement of secure individuals. The significance of human life depends on an individual's capacity for growth if human life is considered the most significant value. Perceiving quality of life is connected to having a specific approach towards security, as it influences human reactions in different circumstances. This method pertains to human cognitive capacities, feelings, and conduct. Security is essential for societal progress. The following elements impact human Quality of Life (QoLS):

- Personal attitudes and needs
- Threats that affect an individual's perception of their safety, and consequently their overall well-being
- A system that guarantees human security and opportunities for growth.

Considering the characteristics mentioned, two main purposes of quality-of-life safety study can be identified: the diagnostic function and the prognosis function. The functions aim to produce insights on how high standards of life and unrestricted development (wellbeing) impact human security (Figure - 8). By establishing the aforementioned, it is feasible to establish security-related objectives for growth more intentionally and more successfully.

Figure 8: Human Security from the Perspective of QoL
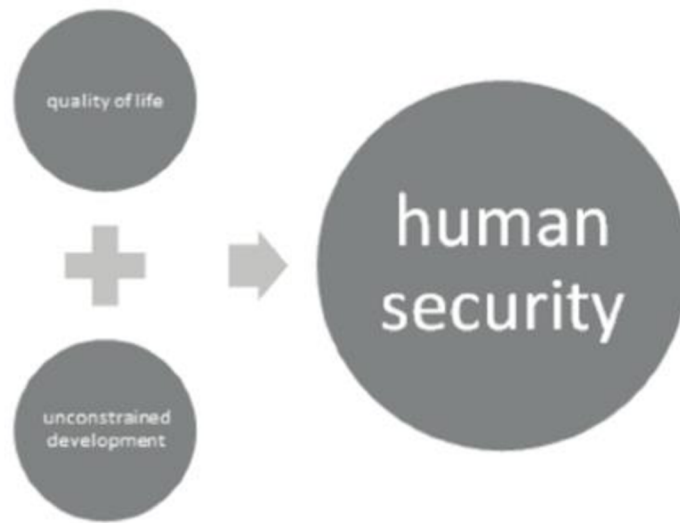
Source: Gierszewski (2018: 7)

4. Practical Part

Since the research is focused on identifying the effect of different live aspects of overall quality of live. The author was motivated by the studies of Boccuzzo and Gianecchini (2015), Ficapal-Cusí et. el. (2018), Wilson and Cleary (1995), Stefgen et al. (2015), (Hornquist, 1990), Xiao (2008) (Perry & Morris, 2005), Xiao (2008) (Perry & Morris, 2005). Those studies helped to construct the questionary. See Chapter 4.1 (Survey Design).

However, the majority of the material stems from the author's own data collection efforts. The author predominantly employs a qualitative approach, supplemented by statistical computations and tests, to discern connections among various variables. Furthermore, the inquiry predominantly focuses on a quantitative methodology. Qualitative data is communicated through words, offering a more comprehensive understanding of a topic or phenomena (Bryman, 2016). In contrast, a quantitative approach involves numerical representation and is particularly suitable for hypothesis testing.

The quantitative methodology prioritizes achieving higher sample sizes to ensure more comprehensive representation and to explore patterns in individual experiences that may not be observable with the smaller number of participants commonly found in qualitative investigations (Bryman, 2016). This is because the quantitative technique aims to uncover patterns in individual perceptions that may not be fully attainable through qualitative approaches. Another benefit of quantitative research is the ease of directly and statistically comparing outcomes (Bryman, 2016).

4.1 Survey design

To validate the assumptions of the study, an online questionnaire exclusively comprising closed-ended questions was created using Google Forms. The questionnaire was structured into two sections: the initial segment focused on gathering demographic information from the respondents, while the subsequent section consisted of 27 measurement questions designed to assess seven distinct characteristics.

Table 2: Survey Design

Dimension	Statement	Source
Security	I perceive the place I live in as secure and safe.	Gierszewski (2018)
	I believe the place I live in has a fair judiciary system and overall fairness.	Maslow (1943)
	I believe the place I live in upholds equal rights between men and women.	Gierszewski (2018)
Social Infrastructure	I feel the place I live in offers decent social support, pensions, unemployment programs, etc.	Frolova et al., 2016
	I feel the place I live in provides adequate infrastructure overall.	Boge et al. (2018)
	I believe the place I live in requires significant improvement in social infrastructure. (rev)	Sierra et al., 2017
Finance	I feel financial aspects of life are important and positively impact human well-being.	Gutter & Copur, 2011
	I believe having savings in my account makes me feel good and satisfied.	Perry & Morris, 2005
	I think money invested in certain assets is an important factor in life.	Xiao (2008), Perry & Morris, 2005
	I feel being without money can lead to anxiety and depression. (rev)	Gardiner & Grace, 2012
Family Dimension	I feel my family always supports me in stressful situations.	Gardiner & Grace, 2012
	I believe my family is everything to me.	Turnbull et al. (2015)
	My family brings me a lot of joy and support overall.	Brown, 1999
Workplace	I feel my work motivates me and brings me happiness.	Boccuzzo and Gianecchini (2015)
	I love my workplace and the people I work with.	Stefgen et al. (2015)
	I feel I have many opportunities at my workplace.	
	My workplace is a top priority in my life.	Ficapal-Cusí et al. (2018)
	I feel I am not treated fairly at my workplace, which brings me down sometimes. (rev)	Gardiner & Grace, 2012
Health	I believe being healthy is the most important factor in our lives.	Awad et al., 1997
	I feel my health is stable and doesn't undermine my overall quality of life.	Diener et al., 1999
	I feel my energy level is sufficient to achieve my goals in life.	Wilson and Cleary, 1995
	I believe relaxation is an important factor in our lives.	Awad and Voruganti, 2000
	I believe the healthcare system in our country is at a good level.	
Well-being	I feel very happy with my life overall.	
	I feel I am exposed to various opportunities in my country.	Hornquist, 1990
	I feel embarrassed by my current circumstances. (Rev)	
	I feel miserable. (Rev)	

Source: Mentioned in the column sources.

4.2 Hypothesis Formation

As per Gierszewski (2018) and Maslow (1948), experiencing a sense of security from physical harm, crime, and violence significantly contributes to overall well-being. Gierszewski (2018) underscores the significance of a fair judiciary system and equitable rights, while Maslow (1948) broadly outlines safety as a fundamental human need within his hierarchy of needs. In environments where individuals feel secure, they are more inclined to participate in activities that enhance their quality of life, such as socializing, exercising, and pursuing personal interests.

Hence:

1st Hypothesis: There is a positive correlation between independent variables (SC) hereinafter as "Security" and "Well-Being" (WB).

Social infrastructure plays a crucial role in shaping individual well-being. According to Frolova et al. (2016) and Boge et al. (2018), access to adequate social support, pension schemes, and unemployment programs contributes positively to overall well-being. Additionally, Boge et al. (2018) highlight the importance of robust social infrastructure, which encompasses various elements such as healthcare facilities, educational institutions, and community centers. Conversely, Sierra et al. (2017) suggests that inadequate social infrastructure may lead to dissatisfaction and hinder overall well-being. Overall, a well-developed social infrastructure fosters a sense of belonging, provides essential services, and promotes social cohesion, all of which are essential for individual well-being.

Hence:

2nd Hypothesis: There is a positive correlation between independent variables (SI) hereinafter as "Social Infrastructure" and "Well-Being" (WB).

Finance significantly influences individual well-being. As suggested by Gutter & Copur (2011), having stable financial resources positively impacts one's sense of security and satisfaction. Perry & Morris (2005) highlight the positive emotional effects associated with savings and financial stability. Nye and Hillyard (2013) also emphasize the importance of financial investments in enhancing overall well-being. Conversely, financial insecurity can lead to anxiety and depression, as indicated by various studies (Xiao, 2008; Perry & Morris, 2005). Overall, financial stability and prudent financial management are crucial factors in promoting individual well-being

Hence:

3ᵈ Hypothesis: There is a positive correlation between independent variables (FC) hereinafter as "Finance" and "Well-Being" (WB).

The family dimension plays a pivotal role in shaping individual well-being. Studies conducted by Gardiner & Grace (2012) and Turnbull et al. (2015) emphasize the supportive nature of family relationships during stressful situations, highlighting the positive impact of familial support on overall well-being. Additionally, Brown (1999) underscores the significance of familial bonds, indicating that families often serve as a source of joy and support in individuals' lives. The emotional support and sense of belonging provided by family members contribute significantly to psychological well-being and overall life satisfaction. Therefore, fostering strong family relationships is essential for promoting individual well-being.

4ᵗʰ Hypothesis: There is a positive correlation between independent variables (FM) hereinafter as "Family" and "Well-Being" (WB).

The workplace dimension significantly influences individual well-being, as indicated by various studies. Boccuzzo and Gianecchini (2015) and Stefgen et al. (2015) emphasize the importance of finding motivation and happiness in one's work, highlighting the positive impact of job satisfaction on overall well-being. Furthermore, Ficapal-Cusí et al. (2018) suggest that a supportive work environment and positive relationships with colleagues contribute to a sense of fulfillment and well-being. Conversely, experiences of unfair treatment or dissatisfaction in the workplace, as mentioned in some studies, can have detrimental effects on psychological well-being. Therefore, creating a conducive and supportive work environment is essential for promoting individual well-being.

5ᵗʰ Hypothesis: There is a positive correlation between independent variables (WP) hereinafter as "Workplace" and "Well-Being" (WB).

Health is a fundamental dimension that significantly affects overall well-being, as indicated by various studies. According to Awad et al. (1997), Diener et al. (1999), and Wilson and Cleary (1995), being in good health is considered one of the most important factors contributing to a high quality of life. Individuals who perceive themselves as healthy and

experience stable health conditions are more likely to report higher levels of well-being. Moreover, having sufficient energy to pursue goals, engaging in relaxation activities, and having confidence in the healthcare system further contribute to overall well-being. Conversely, poor health, chronic illnesses, or concerns about healthcare quality can lead to decreased well-being and negatively impact one's quality of life. Therefore, maintaining good health and access to healthcare services are crucial factors in enhancing overall well-being.

6th Hypothesis: There is a positive correlation between independent variables (HL) hereinafter as "Health" and "Well-Being" (WB).

4.3 Potential Model

Figure 9: Potential Model, without numeric values.
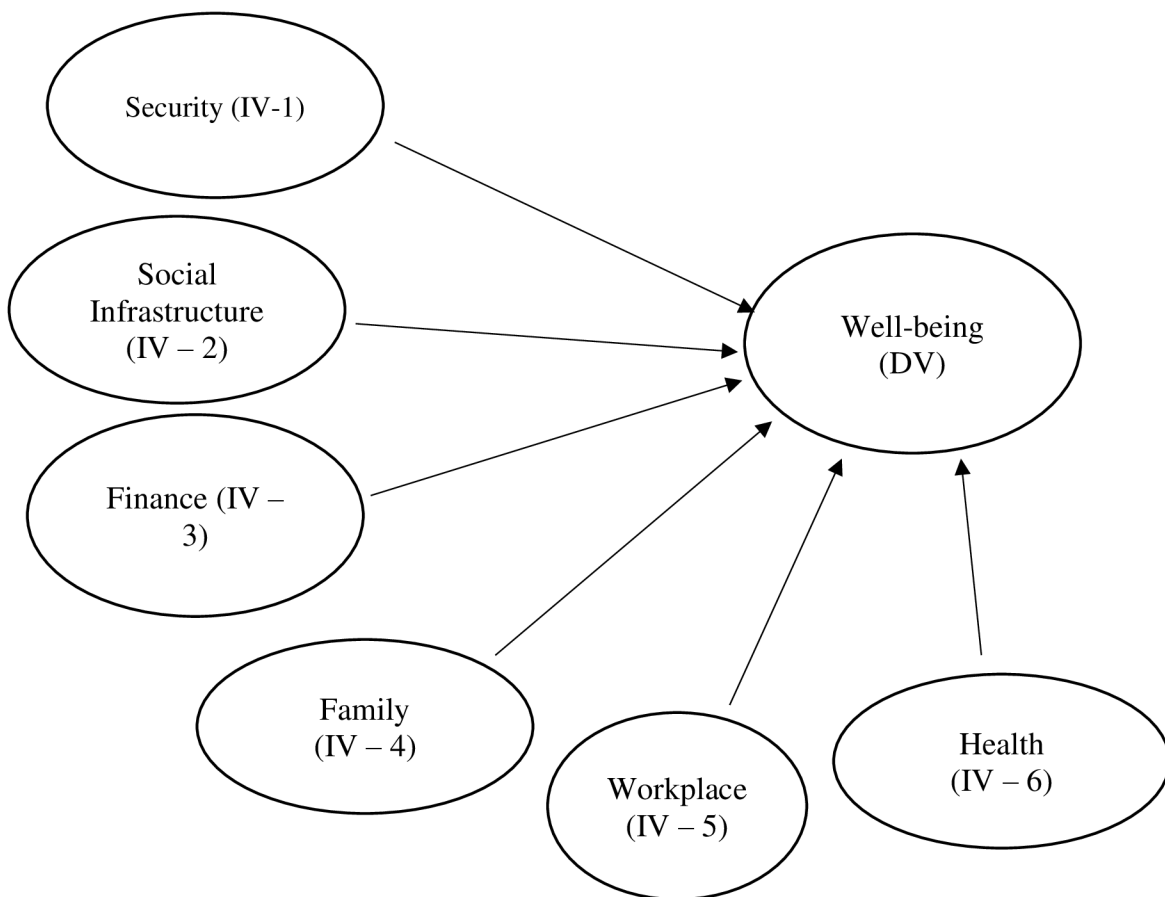
Source: Own proposal.

4.4 Statistical approaches

4.4.1 Cronbach's alpha

The author administered a Cronbach's alpha test, a commonly used statistical tool for assessing the internal consistency reliability of a psychometric instrument or survey questionnaire. This assessment evaluates the degree to which the questions in a questionnaire or test gauge the same fundamental concept or dimension.

Cronbach's alpha is calculated by examining the correlations between items within a scale or test. An alpha score greater than 0.70 indicates that the elements in the scale are accurately assessing the same underlying concept, which signifies strong dependability (See Table 3). On the other hand, a low alpha value indicates that the items in the scale may be assessing separate concepts and may have lower reliability.

Table 3: Cronbach's measures

Cronbach's Alpha	Interpretation
Below 0.7	Poor Reliability
0.7 - 0.8	Acceptable Reliability
0.8 - 0.9	Good Reliability
Above 0.9	Excellent Reliability

Source: Taber (2018).

4.4.2 Descriptive statistics

Descriptive statistics in a Likert scale method, typically ranging from 1 to 5, provide a comprehensive analysis of participant responses. The mean, or average, is computed by summing up all responses for each item and dividing by the total number of responses, offering a central tendency measure.

Standard deviation gauges the spread of responses around the mean, with higher values indicating greater variability. Frequency and percentage distributions tabulate the occurrence of each response option, elucidating response patterns. The mode represents the most frequently chosen response, while the median offers a middle value less influenced by outliers. These statistics collectively aid in summarizing and interpreting participant

responses, enriching understanding of response distribution, central tendency, and variability in Likert scale surveys.

4.4.3   Pearson Correlation Analysis

Correlation analysis is a statistical technique used to determine the strength and direction of the relationship between two variables. It assesses how changes in one variable are associated with changes in another variable.

The Pearson correlation coefficient, often denoted as r, is a common measure of correlation used for variables measured on interval or ratio scales. It ranges from -1 to 1, where:

- A correlation of 1 indicates a perfect positive relationship, meaning that as one variable increases, the other variable also increases proportionally.
- A correlation of -1 indicates a perfect negative relationship, meaning that as one variable increases, the other variable decreases proportionally.
- A correlation of 0 indicates no linear relationship between the variables.

Correlation analysis provides insights into the direction and strength of relationships between variables, aiding in understanding patterns and making predictions. However, it does not imply causation between variables, as correlation does not establish a cause-and-effect relationship (Granger Causality – Time Series should be sampled).

4.5 Results of the Research

4.5.1 Demographic Data of Participants

Demographic data of respondents	N – 414	Percentage
Gender		
Male	252	60,87%
Female	162	39,13%
Age		
18 - 25	135	32,61%
26 – 35	123	29,71%
36 – 45	56	13,53%
46 – 55	78	18,84%
55 +	22	5,31%
Place of birth		
Chuiskaya		
Batkenskaya	23	5,56%
Jalal-Abad	7	1,69%
Narinskaya	3	0,72%
Osh	142	34,30%
Talassakaya	14	3,38%
Issikulskaya	23	5,56%
Bishkek	202	48,79%
Occupation		0,00%
Accountant	15	3,62%
Construction	175	42,27%
Agriculture	88	21,26%
Administrative worker	21	5,07%
Banking	4	0,97%
Doctor	7	1,69%
Other	104	25,12%

Source: Own processing.

The table presents comprehensive demographic data gathered from a sample of 414 respondents. It provides insights into the gender, age, place of birth, and occupation of the participants, along with corresponding counts and percentages. The respondents are divided into two main categories, Male and Female. Out of the total sample size, 252 respondents identified as Male, constituting 60.87% of the sample, while 162 respondents identified as Female, making up 39.13% of the sample.

Respondents' ages are segmented into five distinct groups: 18-25, 26-35, 36-45, 46-55, and 55+. The largest age group comprises individuals aged 18-25, representing 32.61% of the sample, followed by the 26-35 age group with 29.71%. Additionally, 18.84% fall within the 46-55 age range, 13.53% within 36-45, and 5.31% aged 55 and above. The respondents' birthplaces are enumerated along with respective counts and percentages. The majority were born in Bishkek, accounting for 48.79% of the total sample, followed by Osh at 34.30%. Other notable birthplaces include Batkenskaya (5.56%), Issikulskaya (5.56%), with smaller numbers originating from Jalal-Abad (1.69%) and Narinskaya (0.72%). Respondents' occupations are detailed alongside counts and percentages. The largest occupational category is Construction, encompassing 42.27% of the sample, followed by Agriculture (21.26%) and Other (25.12%). Administrative Worker (5.07%), Accountant (3.62%), Doctor (1.69%), and Banking (0.97%) are also represented within the sample.

4.5.2 Descriptive Statistics

This chapter is devoted to introducing the abbreviations that are used. Additionally, the descriptive statistics for each variable are shown. Ave is an abbreviation for the word average.

Well - Being (DV) - WBAve

Security (SC) – SCAve

Social Infrastructure (SI) - SIAve

Finance (FC) - FCAve

Family (FM) – FMAve

Workplace (WP) – WPAve

Health (HL) - HLAve

Table 4: Descriptive Statistics

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness | | Kurtosis | |
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
WBAve	414	1.00	5.00	1.3325	1.9440	.450	.476	2.396	.234
SCAve	414	1.00	5.00	1.1255	1.2164	-.195	.476	1.351	.234
SIAve	414	1.00	5.00	2.3213	1.3004	-.144	.476	-.2306	.234
FCAve	414	1.00	5.00	2.1446	.1252	.126	.476	-.1552	.234
FMAve	414	1.00	5.00	1.0075	1.3305	-.165	.476	-.258	.234
WPAve	414	1.00	5.00	2.3427	1.4073	1.305	.476	-.521	.234
HLAve	414	1.00	5.00	1.4591	1.3066	.356	.476	-.156	.234
Valid N (listwise)	414								

Source: Own processing.

Based on the results, we could see that the mean ranges from 1.0075 at (Family) dimension which demonstrates almost total agreement. The (Workplace's) mean equals to 2.3427, which also demonstrates the agreement across participants, however, not on a full scale. The other financial dimension also demonstrates the agreement of 2.1466. The rest of the variables show descent agreement as well.

4.5.3 Internal Reliability of Answers

Internal reliability pertains to the extent to which other researchers, when given a set of pre-existing concepts, would generate similar data as the original researchers did. On the contrary, external reliability describes the simplicity in which studies can be replicated in relation to high-quality research (Bryman & Bell, 2011). Validity and reliability are closely connected concepts. For example, for a measure of a hypothesis to be called valid, it must be consistent, which means it must also be trustworthy. In addition, there are two clearly different types of validity, namely internal and exterior validity. Validity and dependability are closely interconnected notions. (Bryman & Bell, 2011). When we assess the validity chapter, it is important to have a reliability scale higher than 85 %, in order to test the correlation across variables (Bryman, 2016).

Table 5: Cronbach's alpha for all dimensions

Cronbach's Alpha for "Security".	N of Items
.951	3
Cronbach's Alpha for "Social Infrastructure".	N of Items
.944	3
Cronbach's Alpha for "Finance".	N of Item
.851	4
Cronbach's Alpha for "Family".	N of Item
.874	3
Cronbach's Alpha for "Workplace".	N of Item
.896	5
Cronbach's Alpha for "Health".	N of Item
.873	5
Cronbach's Alpha for "Well-Being".	N of Item
.942	4

Source: Own processing.

The Cronbach's alpha coefficients for all composite variables demonstrate a high level of internal consistency, indicating that the responses provided by employees are both legitimate and reliable. This also suggests that the questions were formulated in a clear and comprehensible manner. That also indicates that the further statistical analysis are possible (Bryman, 2016).

Table 6: Test of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
WBAve	.243	414	.003	.441	414	.000
SCAve	.375	414	.002	.694	414	.000
SIAve	.675	414	.031	.234	414	.001
FCAve	.135	414	.004	.596	414	.000
FMAve	.557	414	.005	.154	414	.000
WPAve	.318	414	.044	.195	414	.003
HLAve	.146	414	.003	.097	414	.000

Source: Own processing.

Results demonstrated above. It is seen that the significance value of p − value, equals less than .05 alpha level. Which indicates that residuals aren't normally distributed. "*Ordinary regression analysis*" is applied in the further modelling. The application of Log-In function is needed.

Table 7: Logged Residuals, Normality Test.

Tests of Normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Log_WBAve	.133	414	.001	.668	414	.000
Log_SCAve	.554	414	.002	.522	414	.000
Log_SIAve	.231	414	.001	.039	414	.000
Log_FCAve	.444	414	.000	.992	414	.000
Log_FMAve	.514	414	.020	.566	414	.000
Log_WPAve	.667	414	.023	.565	414	.000
Log_HLAve	.322	414	.033	.875	414	.000

a. Lilliefors Significance Correction

Source: Own processing.

4.5.4 Model of Fit

Further, the test of Fit – Model is run to make sure that all variables are significant.

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	351.237			
Final	1.955	553.426	414	.001

Link function: Logit.

Source: Own processing.

While the statistically significant threshold often falls between the range of 0.001 to 0.05, a larger p-value indicates that the data align well with the model. The reason for this is because the p-value increases as the significance threshold falls within the range of .001 to .05. The model has made a substantial statistical contribution.

4.5.5 Test of parallel lines

Test of Parallel Lines[a]

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Null Hypothesis	274.681			
General	244.911[b]	24.677[c]	414	.324

The null hypothesis states that the location parameters (slope coefficients) are the same across response categories.

a. Link function: Logit.

b. The log-likelihood value cannot be further increased after maximum number of step-halving.

c. The Chi-Square statistic is computed based on the log-likelihood value of the last iteration of the general model. Validity of the test is uncertain.

Source: Own processing, SPSS IBM.

The "Parallel lines" test should not be violated. This test examines the hypothesis that the relationship between the dependent variable and the independent variable remains constant across different categories of the dependent variable. It is used to assess whether the

parameter estimates remain consistent at different cut-off points (Ar & Yldz, 2014). The Table 15 presents the results of the "Test of parallel lines".

4.5.6 Parameters of the Model

The following table illustrates the parameters of the model.

Table 8: Estimates

	Parameter	B	Std. Error	95% Wald Confidence Interval		Wald Chi-Square	Sig.
				Lower	Upper		
Threshold	[Prodlog=1.00]	-6,9985	1,2205	-9,5554	-2,2187	12,3187	0,0221
	[Prodlog=1.33]	-3,3787	1,2265	-5,6875	-0,9988	6,2312	0,0327
	[Prodlog=1.67]	-1,5468	1,5446	-4,5789	1,2287	1,4551	0,0326
	[Prodlog=2.00]	-0,4568	1,4455	-3,4112	2,1211	0,2378	0,2290
	[Prodlog=2.33]	-0,0333	1,3117	-2,8328	2,2373	0,5123	0,3887
	[Prodlog=2.67]	1,5879	1,6876	-1,9874	4,2387	1,2221	0,5587
Location	Log_SCAve	0,6525	1,3305	0,5500	7,2222		0,0165
	Log_SIAve	1,4156	1,5517	0,4570	9,8222		0,0021
	Log_FCAve	0,7085	1,8796	0,7570	4,6892		0,0227
	Log_FMAve	1,1557	-1,1237	1,3358	3,2336		0,0341
	Log_WPAve	-0,0155	1,8796	0,3370	9,6537		0,0211
	Log_HLAve	0,2997	1,1237	1,2201	5,2676		0,0021
(Scale)		1[a]					

Source: Own processing.

Based on the model, the coefficients are highlighted in green. The signs indicate the impact and between the independent variable and dependent variable. The final model looks in the following way.

4.5.7 Final Model

Figure 10: Final Model
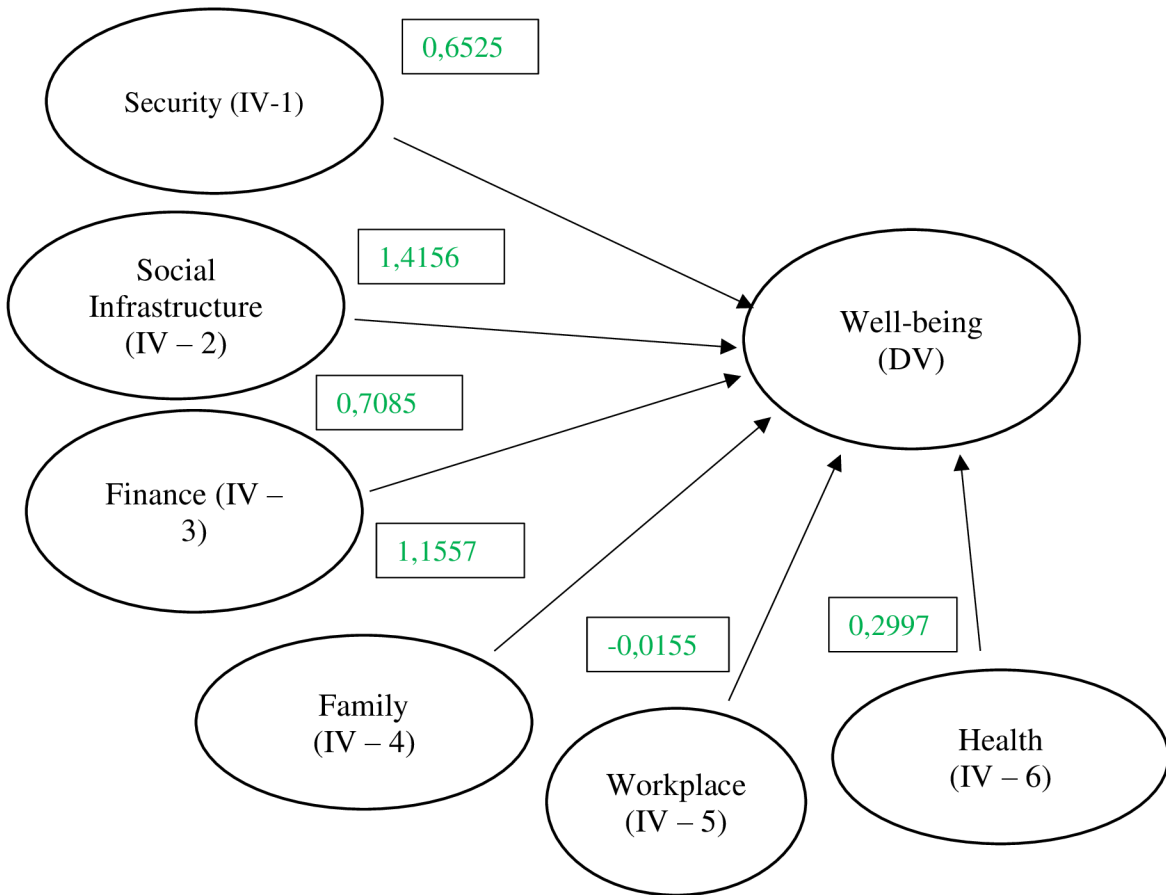
Source: Own proposal.

It is seen that all variables are significant and have impact to the independent variables. There was no violation in the test of parallel lines. Hence the results are the following: with every one increase of independent variables such as (SC, SI, FC, FM, HL) there dependent variables increases consequently by (0.65: 1.41: 0.70: 1.15: and 0:29). However, there is a negative trend of Workplace with its p – value of 0.0211 and its value of (-0.015). Thus, we could confirm the following hypothesis:

Hypothesis	Accepted / Rejected
There is a positive correlation between independent variables (SC) hereinafter as "Security" and "Well-Being" (WB).	Accept
There is a positive correlation between independent variables (SI) hereinafter as "Social Infrastructure" and "Well-Being" (WB).	Accept

There is a positive correlation between independent variables (FC) hereinafter as "Finance" and "Well-Being" (WB).	Accept
There is a positive correlation between independent variables (FM) hereinafter as "Family" and "Well-Being" (WB).	Accept
There is a positive correlation between independent variables (WP) hereinafter as "Workplace" and "Well-Being" (WB).	Reject
There is a positive correlation between independent variables (HL) hereinafter as "Health" and "Well-Being" (WB).	Accept

Source: Own processing.

5. Results and Discussion

The comprehensive understanding of individual well-being draws from insights provided by a multitude of scholars across disciplines. Maslow's (1948) seminal work on the hierarchy of needs laid the groundwork for understanding the fundamental role of security in fostering well-being. Gierszewski (2018) further emphasized the importance of security, highlighting the significance of equitable rights and a fair judiciary system in promoting overall well-being.

Moreover, research by Frolova et al. (2016) and Boge et al. (2018) underscored the pivotal role of social infrastructure in shaping well-being. Access to essential services, robust support networks, and community resources, as highlighted by Sierra et al. (2017), fosters a sense of belonging and promotes social cohesion, contributing significantly to individual well-being.

Financial stability emerges as a critical determinant of well-being, as highlighted by studies conducted by Gutter & Copur (2011), Perry & Morris (2005), and Nye and Hillyard (2013). The ability to meet basic needs and plan for the future positively impacts one's sense of security and satisfaction.

Furthermore, familial relationships play a central role in shaping well-being, as emphasized by Gardiner & Grace (2012), Turnbull et al. (2015), and Brown (1999). Strong family bonds provide emotional support and contribute significantly to psychological well-being and overall life satisfaction.

While workplaces are significant environments in individuals' lives, findings from Boccuzzo and Gianecchini (2015), Stefgen et al. (2015), and Ficapal-Cusí et al. (2018) suggest that simply improving workplace conditions may not be sufficient to enhance overall well-being. Instead, fostering organizational cultures that prioritize employee well-being and promote work-life balance may be more impactful. The hypothesis was rejected; however, it doesn't indicate the generalizability of the research.

Lastly, health emerges as a fundamental dimension of well-being, as indicated by Awad et al. (1997), Diener et al. (1999), and Wilson and Cleary (1995). Beyond the absence of illness, good health encompasses physical vitality, mental well-being, and emotional resilience.

In conclusion, the pursuit of individual well-being requires a holistic approach that addresses the multifaceted dimensions of human existence. By recognizing the interconnectedness of various factors and adopting policies and practices that prioritize security, social infrastructure, financial stability, familial relationships, workplace satisfaction, and health, societies can create environments that foster flourishing, resilience, and collective prosperity.

5.1 Limitations of the Work

Firstly, the conclusions are drawn from a synthesis of existing literature, which may vary in methodology, scope, and context. Thus, there might be inconsistencies or gaps in the findings that could affect the robustness of the conclusions. Additionally, the conclusions predominantly rely on empirical research, which may overlook the nuanced and subjective aspects of well-being that qualitative studies could capture.

Moreover, the conclusions are primarily based on studies conducted in specific cultural, socioeconomic, and geographical context of Kyrgyzstan, limiting their generalizability to broader populations. Furthermore, the dynamic nature of societal structures and individual experiences implies that the determinants of well-being are subject to change over time. Therefore, the conclusions drawn may not fully capture the evolving nature of well-being and its determinants. Despite these limitations, the synthesized conclusions provide valuable insights into the multifaceted dimensions of well-being and serve as a foundation for further research and policy development aimed at promoting holistic well-being.

6. Conclusion

In conclusion, this thesis delved into various aspects influencing Quality of Life (QoL), exploring dimensions such as health, workplace dynamics, family relationships, financial satisfaction, social well-being, social infrastructure, and security. The investigation utilized a multifaceted approach, incorporating the Brunner and Marmot Model to understand the complex interplay between these factors and QoL.

Through a thorough survey design and statistical analysis employing techniques such as Cronbach's alpha, descriptive statistics, and Pearson Correlation Analysis, the study gained valuable insights into the relationship between these dimensions and QoL. The findings revealed significant correlations and highlighted the importance of each dimension in contributing to overall well-being.

However, it's important to acknowledge the limitations of this work, including potential biases in the survey design and the inherent constraints of quantitative analysis in capturing the nuanced nature of subjective experiences related to QoL.

Despite these limitations, the study provides a comprehensive understanding of the factors shaping QoL, offering valuable insights for policymakers, healthcare professionals, and individuals seeking to enhance well-being. By recognizing the intricate interplay between health, social relationships, financial stability, and environmental factors, stakeholders can develop targeted interventions and policies aimed at improving overall QoL for individuals and communities.

In future research, addressing the identified limitations and incorporating qualitative approaches could provide a more holistic understanding of QoL, enriching our knowledge and informing more effective strategies for promoting well-being in diverse contexts.

Overall, this study contributes to the ongoing discourse on QoL and underscores the importance of considering multifaceted dimensions in assessing and enhancing individual and societal well-being.

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8. List of pictures, tables, graphs and abbreviations

8.1 List of tables

8.2 List of Figures

Appendix

Correlations		Log_WBAve	Log_SCAve	Log_SIAve	Log_FCAve	Log_WPAve	Log_HLAve	Log_HLAve
Log_WBAve	Pearson Correlation	1	,348	,055	,225	-,100	,000	,007
	Sig. (2-tailed)		,268	,866	,481	,757	1,000	,984
	N	12	12	12	12	12	12	12
Log_SCAve	Pearson Correlation	,348	1	,000	-,555	,117	,189	,350
	Sig. (2-tailed)	,268		1,000	,061	,716	,556	,265
	N	12	12	12	12	12	12	12
Log_SIAve	Pearson Correlation	,055	,000	1	-,146	-,231	,000	,571
	Sig. (2-tailed)	,866	1,000		,652	,471	1,000	,053
	N	12	12	12	12	12	12	12
Log_FCAve	Pearson Correlation	,225	-,555	-,146	1	-,342	,163	,436
	Sig. (2-tailed)	,481	,061	,652		,276	,612	,157
	N	12	12	12	12	12	12	12
Log_WPAve	Pearson Correlation	-,100	,117	-,231	-,342	1	,000	-,105
	Sig. (2-tailed)	,757	,716	,471	,276		1,000	,746
	N	12	12	12	12	12	12	12
Log_HLAve	Pearson Correlation	,000	,189	,000	,163	,000	1	,213
	Sig. (2-tailed)	1,000	,556	1,000	,612	1,000		,505
	N	12	12	12	12	12	12	12
Log_FMAve	Pearson Correlation	,007	,350	,571	,436	-,105	,213	1
	Sig. (2-tailed)	,984	,265	,053	,157	,746	,505	
	N	12	12	12	12	12	12	12