# Theses of the doctoral (PhD) dissertation

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# HEALTH CONSCIOUS EMPLOYEE BEHAVIOUR AS THE FACTOR OF WELL-BEING AND COMPETITIVENESS

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Approval of Head of Doctoral School      Approval of Supervisor

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# 1. INTRODUCTION AND OBJECTIVES

## 1.1. Research background and problem statement

21$^{st}$ century has presented new challenges to members of our society, not only at individual level, but also at corporate and state levels. Competition is continuously increasing in all sectors, therefore, identifying key competitive factors has become crucial. Social capital is becoming more and more important in the strategy of companies, and thus there is an increasing emphasis on people as a key resource. The growing role of human resources can also be seen in the enormous number of researches in this field, which, however, focus on ways to increase efficiency and place less emphasis on health preservation as one of the key factors for sustainable well-being and sustainable future.

In recent decades, two parallel processes can be observed: on the one hand, the concept of sustainable development has changed significantly, in addition to the issue of the optimal use of production and resources, attention is increasingly focused on social welfare, its preservation and enhancement. On the other hand, the emergence and spread of the achievements of 4$^{th}$ Industrial Revolution (Industry 4.0) has significant impact on our daily life.

For the future of health promotion, it is important to emphasize that human resource is a key resource, one of the most important factors in corporate productivity and performance. The competitiveness of not only nations but also companies depends significantly on human resources. Therefore, companies can be considered as the main stakeholders in health preservation and health promotion. Nevertheless, in order to maintain health, health-conscious behaviour is also necessary on an individual level from the individuals as consumers.

Consequently, the development of health awareness as a social sustainability factor can be implemented on the following three levels:

1. state or governmental level (networks within healthcare system, health policy and measures);
2. company, corporate level (internal CSR activities, workplace health promotion)
3. consumer or individual level (attitudes, motives, habits).

Problem statements and justification of the choice of topic are based on the followings:
- The issue of sustainability has received increasing attention since the 1980s. Due to the information society coming to the fore and our environment changing extremely rapidly, knowledge transfer is playing an ever-increasing role – not only in our daily lives, but also in long-term consumer patterns.
- The continuously developing area of health promotion and disease prevention and the results of various nutrition and health researches also confirm that the

needs and habits of consumers have changed fundamentally in the recent time period, and the trend of health is receiving more and more attention.

- Recently, more and more companies and managers are recognizing the usefulness and necessity of social responsibility at the corporate level as well. Moreover, the focus of the transforming strategic human resource management has now completely shifted from recruitment to retaining valuable employees, therefore, this research field is also becoming more and more valuable and employee loyalty has become a key issue in strategic human resource management. A socially responsible company can take advantages over its competitors such as increased productivity and competitiveness, improved corporate reputation and image, and significant cost savings from stakeholder loyalty, better organizational performance, and innovative behaviour of employees (GROSSMEIER et al., 2016; SANDERS et al., 2010; DUNAY et al., 2021; LI et al., 2021).

- The use of social media has a significant impact on consumer behaviour nowadays, thus, it is a cardinal question to address this area when examining the possibilities of developing health awareness – namely: what is the exact mechanism of actions, how to use social media to influence consumer behaviour towards health awareness.

- I consider the lack of knowledge to be the largest obstacle to awareness development, therefore I turned to an area of growing importance, knowledge management and related tools and methods, thus examining the research area from a new aspect and creating a model for possible directions of health awareness development.

## 1.2. Objectives and hypotheses

The primary goal of the dissertation is to examine and evaluate the current situation of health awareness according to the three levels defined in the literature (state or political decision-making level, company or business level, consumer or individual level) and to help develop possible directions and methodologies for health awareness development, in particular through corporate benefits and social media. Regarding the topic of the dissertation, a large amount of literature is related to each part, however, previous research does not view the topic as a complex system, rather examines certain parts of health awareness, social media usage habits, and knowledge management as separate units.

Furthermore, research on workplace health promotion is still quite marginal, and their impact on employee satisfaction and loyalty has not yet been examined in such a complex way. During the preliminary literature review and fact-finding on the topic, these areas were identified as a research gap that is worth and unique to examine in my dissertation.

The main objective of the primary research is to examine consumer attitudes towards health awareness through social media applications in terms of

sustainable development and in the light of employee satisfaction and loyalty. The novelty of the research lies in its complexity, thus the aim of the dissertation is to present the research topic as complex as possible through the three research levels, however, the empirical, primary research focuses primarily on the corporate (employer) and consumer (employee) side. Following list summarizes my objectives formulated during the research and the hypotheses belonging to each objective as can be seen below.

**Objectives related to secondary research:**

**O1:   Systematic literature review in order to describe the theoretical background, to present, analyse and critically evaluate the most important scientific results of consumer behaviour related to health awareness in the light of sustainable development from different perspectives.**

Mapping, synthesizing and critically evaluating the related national and international literature in relation to social media, health awareness, employee satisfaction, loyalty and sustainable development. During the processing of the international literature, I mainly focus on the literature review and data processing in English, however, I also extend the research area to the relevant German and French publications, as in my experience the results may be published in Authors' mother tongue. In the course of the literature research, I sought to apply interdisciplinary and multidisciplinary approaches.

**O2: Capability study of social media applications**

The capability study explores, classifies and analyses the various social media channels and platforms, as well as their advantages and disadvantages, the so-called "good practices" associated with them. With the help of capability study, I examine, among other things, the different opportunities and possible impact of the application of knowledge management tools and methods in influencing consumer behaviour. My related hypothesis:

*H1: Social media is capable tool for effective information dissemination; however, it can be a threat if social media information on health promotion and disease prevention is uncontrolled.*

Research methodology: literature review, capability study, secondary research (data collection and analysis), SWOT analysis.

**O3:   Better understanding of the networks within the healthcare system (primarily transmission networks and the social network around patients) and the processes taking place in the various networks in relation to the state, political decision-making and/or institutional level.**

As the amount of information increases and the flow of information accelerates, so-called knowledge-based solutions, tools and methods of knowledge management are becoming increasingly important. At the same time, it can be

observed that the creation, sharing and systematization of information is becoming more and more networked, which can also be observed in healthcare systems, thus becoming a factor influencing health awareness at the political decision-making level. One of the objectives of the dissertation is to explore these networks and to define the role of different networks in terms of effective message dissemination.

**O4: Exploring health-related quality of life, evaluating the effectiveness of policy-making and institutional levels by comparing healthcare systems and health policy measures.**

To achieve this objective, I formulated the following hypothesis:

*H2: As a result of the 4th Industrial Revolution, the concept of sustainable development and the health challenges posed by the COVID-19 pandemic have recently led to an increase in disease prevention and quality of life services, which have an impact on employment and economic structure, thereby boosting economic growth.*

Research methodology: descriptive statistics, literature review, secondary research (data collection and analysis).

**Objectives related to empirical research:**

**O5: Observing the consumers' social media usage patterns in relation to health awareness, sustainable development, and in-depth analysis of consumer attitudes to their current lifestyles — by using qualitative and quantitative research tools and methods.**

My objective related to the consumer level is to develop a consumer conceptual model that demonstrates the relationships between individual socio-demographic characteristics, current lifestyle factors, and openness to the use of social media to obtain health-related information. Hypotheses related to the model are tested, data are processed and evaluated using various univariate and multivariate mathematical and statistical methods.

*H3: Socio-demographic factors influence the possibility of increasing health-conscious consumer behaviour through the openness on use of social media.*

*H4: Factors related to current lifestyle have a greater impact on openness to health-conscious use of social media than socio-demographic factors.*

*H5: Homogeneous groups can be identified among users of social media applications that are suitable for characterizing respondents based on their consumer attitudes.*

Research methodology: quantitative research based on preliminary qualitative research results by using questionnaire survey. Data are analysed through multivariate statistical methods (factor analysis, cluster analysis).

**O6: Examining the role of health-related employee benefits in the development and increase of employee well-being, satisfaction and loyalty, linked to the company or corporate level.**

Related to the corporate level, my objective is to develop a conceptual framework model that includes the most important health-related work benefits organized into different factors, and then the direct effects of the benefits on employee well-being, satisfaction and loyalty are explored along the factors. The related hypotheses are tested, and the data is processed by using multivariate statistical and mathematical methods.

The hypotheses related to the objective of examining the employer level are formulated below:

*H6: Factors related to workplace health promotion that affect employee well-being can be grouped into two groups according to whether the employee considers the benefit to be the responsibility of himself or herself or the employer, but each of these has a positive effect on well-being.*

*H7: Among the factors influencing employee loyalty through employee satisfaction, external control factors, especially prevention and healthcare support are primary in terms of increasing loyalty.*

Research methodology: quantitative research based on preliminary qualitative research results by using questionnaire survey. Data are analysed through multivariate statistical method, PLS-SEM analysis.

**O7: Analysing the results at different levels, drawing conclusions, making proposals to increase the efficiency of health awareness communication, effective knowledge management in the light of sustainable development.**

Within this, my goal is to create an own model for characterizing and synthesizing the relationships of the three research levels (state, corporate, consumer level).

The correlation system of objectives, hypotheses and research methods is illustrated in Figure 1.
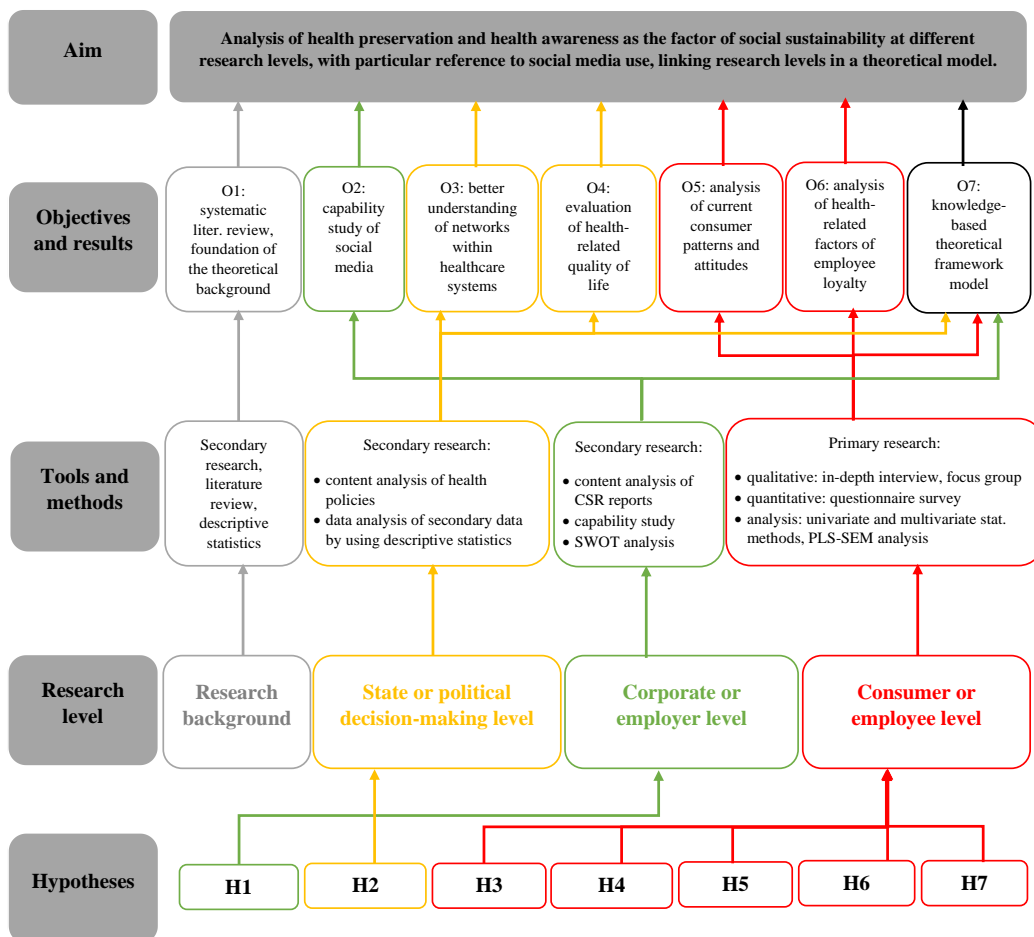
**1. ábra: Correlation system of research objectives and hypotheses**
Source: Author's own compilation

# 2. MATERIAL AND METHOD

## 2.1. Secondary research

There are plenty of secondary data sources available on the topic, however, none of them provide a complete answer to the questions and hypotheses that are an integral part of the research. Some of the hypotheses can be examined by analysing data from secondary sources (H1-H2), but for other part of hypotheses (H3-H7) it is crucial to set up a conceptual framework model and to test the hypotheses included in the model in an empirical research.

When it comes to the research methodology, it can be considered it is a one-time cross-sectional research, within which, of course, it is necessary to collect data in both secondary and primary ways. In line with my objectives and hypotheses, I began the foundation of my research on the topic of the dissertation by reviewing relevant theoretical models and empirical research related to health awareness as a factor of social sustainability through state (institutional), corporate (employer) and consumer (employee) levels. In order to systematize secondary sources, a systematic literature review was performed by using such scientific databases as EBSCO, ProQuest, ScienceDirect, Scopus, SpringerLink, and Web of Science, as well as the search engines ResearchGate and Google Scholar. In addition to literature sources, I used statistical databases and data series from international surveys to collect secondary data. Secondary data primarily derive from the databases of the following institutions: OECD, World Bank, KSH, European Commission, UN, Eurostat, Statista. As part of the secondary research, with the help of capability study related to social media applications, not only consumer behaviour can be analysed, but we can also get answers to various questions related to different social media applications: what are its advantages, disadvantages, how can they influence behaviour patterns, are they able to build awareness, are they suitable to make the social sustainability factor widely known and deepened.

## 2.2. Primary research

The results of the primary research carried out in support of the above-mentioned background research will be used for the development of knowledge management related to sustainability, for the widest possible sharing of knowledge. The primary research focuses on the study of consumer behaviour related to health awareness as a factor of social sustainability, determines consumers' attitudes and social media usage patterns towards health awareness and sustainable development, as well as the role and direct impact of health-related employee benefits on employee satisfaction and loyalty. By learning about processes and patterns of behaviour, a knowledge-based framework – that can be applied at the consumer, corporate and institutional levels – can be built, with the help of which health awareness can be increased. The detailed process of primary research and the methods related to each step are illustrated in Figure 2.
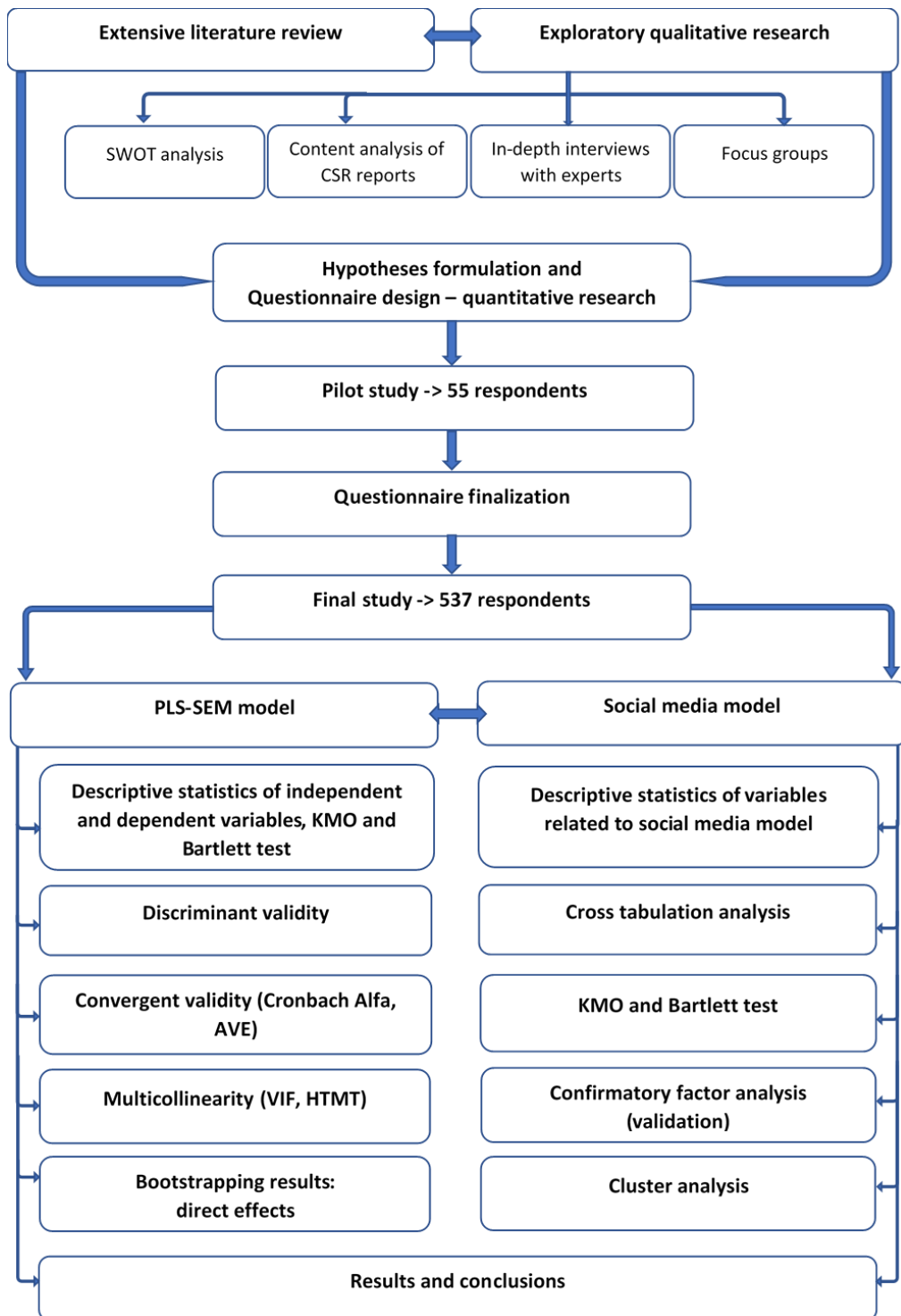
**Figure 2: Research methodology framework**
Source: Author's own compilation

## 2.3. Formulation and structure of conceptual framework models

Carrying out the primary research served a dual purpose. On the one hand, the most important related objective is to learn about consumers 'social media usage patterns and examine their attitudes to embracing health-related information through social media and their openness to using social media to increase their health awareness. On the other hand, the research is intended to explore the role and impact of health-related employee benefits in the development of employee satisfaction and loyalty - to find out what factors can motivate people and, in addition to improving their health and quality of life, these factors can result economic benefits at company level and thus, they also result overall societal benefits.

Such a complex, interdisciplinary approach to the topic is not common, thus the importance of primary research is further enhanced, as data from adequate secondary sources are not available to substantiate some of the hypotheses. To achieve this dual goal mentioned above, I developed two conceptual models to test the hypotheses, one to explore the role of the social media factor in the development of health-conscious consumer behaviour (Figure 3) and the other to determine health-related factors of employee well-being, satisfaction, and loyalty. (Figure 4).
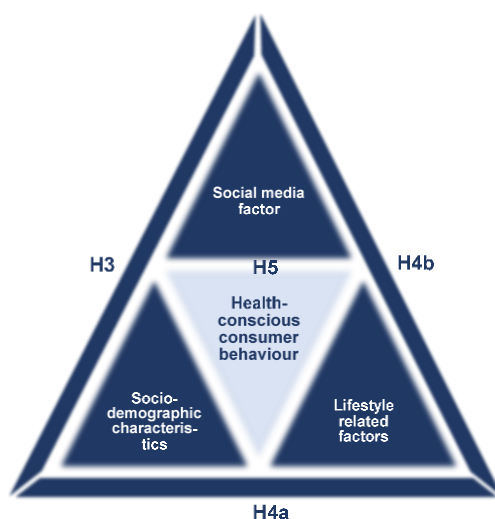


**Figure 3: Conceptual framework model – the role of social media in health promotion**
Source: Author's own compilation

In order to build a conceptual model for health-related social media usage habits, the results of social media capability study, related SWOT analysis, and preliminary literature research were also used.

Exploring the relationship between health-related benefits, employee well-being, satisfaction and loyalty, the extensive literature review and content analysis of CSR and social sustainability reports were followed by individual in-depth interviews with experts with relevant views on the topic. Personal interviews were conducted between August and September in 2020. During the in-depth interviews, I mapped out the areas where the development of health awareness in the form of employee benefits may arise, and I asked how these factors can benefit companies. Furthermore, relying on secondary research, I assessed what health benefits can be applied at the level of small and medium-sized enterprises that do not require large infrastructure and financial investment. Using the results of the in-depth interviews, I conducted 3 focus group studies in Budapest in October 2020. With the help of focus group studies, I explored the possible motivations of employees and got an idea of which areas and which health-related benefits are considered as the most important factors of employee satisfaction. As a result of the qualitative research, the following areas were identified as the most important factors: physical health, mental and emotional health, healthy work environment, financial health (including insurance), healthy nutrition and prevention. This result largely coincides with outcomes has been found in the literature, but in response to the current health challenges, physical health factors, opportunity for home office and a safe work environment have become even more valued from employees' point of view.

In case of second model, based on the related literature sources, and previous studies performed, indicators of exogenous variables and items connected to employee well-being are newly established and tested through exploratory factor analysis. Indicators related to employee satisfaction and loyalty are adapted from Homburg and Stock (2000, 2004), respectively. The analysis of factors influencing employee well-being, satisfaction and loyalty was based on the quantitative research, and a questionnaire survey was used for data collection. As own questions (and not validated constructs) were used in case of exogenous variables in questionnaire survey, also a pilot study was performed with 55 respondents. During the pilot survey, no logical and content inconsistencies were found by the respondents. Based on the post-survey analysis, 2 indicators were removed from the final questionnaire survey. Using the results of the pilot study, both the research model and the related structured online questionnaire were finalized for data collection of primary research. However, it is important to note that the responses from the pilot questionnaire were not used for analytical-evaluation purposes in final PLS-SEM analysis. Data collection was performed using an arbitrary sampling method. The conceptual framework model formulated by linking the employer and employee levels is illustrated in Figure 4.
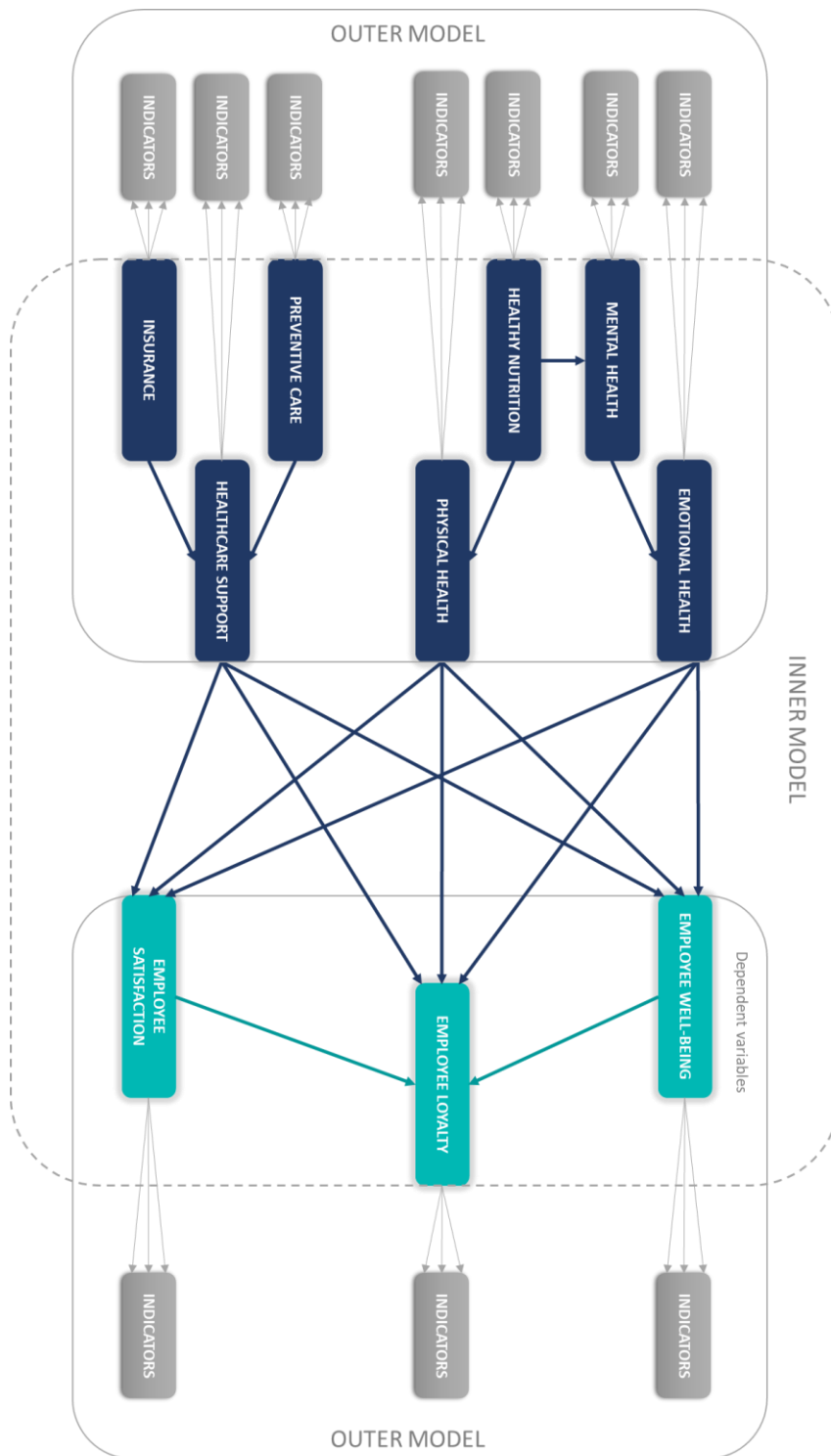
**Figure 4: Conceptual framework model – factors influencing employee well-being, satisfaction and loyalty**
Source: Author's own compilation

The questionnaire survey was conducted in Hungary between December 2020 and January 2021, in which I included questions related to the variables of both models. Accordingly, the structure of the questionnaire followed the structure below:

- questions related to current health status and lifestyle → This questionnaire block included 13 closed-ended questions that involved the above-mentioned lifestyle factors. To assess attitudes, I used a 5-point Likert scale, where 1 = not important at all, 5 = very important. On the other hand, I measured current lifestyle habits by using polychotomy questions.
- questions related to social media usage habits → There were 8 closed-ended questions in the questionnaire block, of which 4 questions on openness (as a confidence factor) were measured by using a 5-point Likert scale, where 1 = strongly disagree, 5 = strongly agree. With the help of further polychotomy questions, I mapped out who uses how often and what type of social media applications, and whether respondents use these platforms to collect and share information related to health awareness.
- questionnaire parts included in the PLS-SEM analysis contained a total of 48 closed questions (indicators), the questions were measured by using a 5-point Likert scale as follows: 1 = strongly disagree, 5 = strongly agree.
  - PH – questions related to work benefits promoting physical health (5)
  - MH – questions related to work benefits promoting mental health (7)
  - HN – questions related to work benefits promoting healthy nutrition (4)
  - PRE – questions related to work benefits promoting preventive care (4)
  - HS – questions related to work benefits promoting healthcare support (4)
  - INS – questions related to work benefits promoting insurance (6)
  - EH – questions related to work benefits promoting emotional health (5)
  - WELL – questions related to employee well-being (3)
  - SATIS – questions related to employee satisfaction (6)
  - LOY – questions related to employee loyalty (4)
- demographic characteristics → this questionnaire block included 6 questions related to demographic characteristics.

## 2.4. Statistical methods used in data analysis

PLS-SEM was modelled with SmartPLS version 3.2.8 software. Furthermore, Statistical Package for Social Sciences (SPSS) version 21 was used to perform descriptive data analysis and also to perform factor and cluster analysis related to social media model.

**Univariate statistical methods**

To present the socio-demographic data, I used a descriptive statistical method, including mostly univariate analyses, with the help of which I analysed the variables one by one, independently of each other. Frequency analysis can be performed for multiple response options, where a frequency ranking of the

response options is created. Using a frequency study, I analysed the responses to demographic questions on the one hand, and habits and motivations related to the use of social media on the other. The method was therefore used to explore possible reasons for social media usage. Average calculation was also performed in order to examine the significance of certain areas and dimensions of health and the characteristics of the current lifestyle of consumers. With the help of this, I managed to get an idea of the preferences of consumers, their priorities related to the given issue.

## Bivariate statistical methods

These procedures allow for analysing the possible correlation between two variables. Among the bivariate analysis methods, I primarily used cross-tabulation analysis in my research. To perform the cross-tabulation analysis, I created the "openness" variable, which denotes the openness to use social media for health-related information collection and share. In what follows, I considered it open to anyone who gave a value of at least 3 in Likert scale in response to the related question. In order to prove my hypotheses H3 and H4 and to perform correlation analyses, I used cross-tabulation analysis as a statistical method, and I also used this method to stratify the demographic characteristics and to profile the clusters formed during the cluster analysis.

## Multivariate statistical methods

Among the multivariate statistical analyses, I used the methods of principal component analysis and cluster analysis in the social media part of the research (to prove my hypothesis H5). My preliminary studies to verify the applicability of the method were the KMO and Bartlett test. In the next step, principal component analysis explores the relationship between the variables and makes it possible to collapse variables into composite categories with a minimal loss of information. During the cluster analysis, I performed a non-hierarchical cluster analysis by using the K-means method.

To examine the impact of health-related work benefits on employee well-being, satisfaction and loyalty (hypotheses H6 and H7), due to the complexity of the available database and the structural model, I decided to use the PLS-SEM method, which combines factor analysis, correlation analysis and regression analysis methods. Literature sources suggest using the method of sample size is too small, applications do not have available theory, predictive accuracy is paramount and/or correct model specification cannot be ensured. The greatest advantage of this method is that also indirect effects can be examined in addition to the direct effects between the variables. Therefore, it was possible to observe and analyse how variables exert their effect on the target variables through other (mediator) variables.

# 3. RESULTS AND DISCUSSION

## 3.1. Results related to capability study of social media

Based on the findings of the capability study, companies and health care institutions (possibly the state) should focus primarily on social networks in their health awareness management process, as they can easily engage their target groups with minimal cash investment. In Hungary - as well as internationally - the most popular and most active social network site is Facebook. According to the survey results published by the RESEARCH CENTER (2021), Facebook is known to 94% of the Hungarian population and 85% of respondents use it at least on a weekly basis. The second most popular site is YouTube, which is known to 90% of the population and also used by 67% on a weekly basis. Instagram is the third most popular site among the Hungarian population, with 66% awareness and 30% of the population using it on a weekly basis. In addition to these sites, Pinterest is still highly popular in Hungary, but this platform is mostly used by women (75% of users are women). In addition, the platform created for building and nurturing professional relationships, called LinkedIn, is also a popular social network among the Hungarian population, but mainly among those with higher education (66% of the users).

However, social media sites are popular not only among individual users in Hungary, but also at the corporate level. The proportion of businesses using social media sites has almost doubled in recent years, with 45% of businesses using the internet already using social sites in 2020, meaning this channel has the greatest potential. With the rapid development of technology and the spread of social media, the service sector has had to change its communication strategy – there is an increasing shift to take advantage of the online world, which, despite its many benefits, can create many barriers to effective communication.

Based on the extensive literature review and my previous research (analysis of health campaigns), I summarized the strengths, weaknesses, opportunities, and threats related to social media use in the form of a SWOT analysis (Table 1).

**Table 1: SWOT analysis of the social network sites**

| STRENGHTS | WEAKNESSES |
|---|---|
| With clear and well-structured messages, the audience can be well targeted and easily available, and thanks to the personalization of the messages, everyone gets targeted messages related to their own health status and interests. | Overcrowded platforms, huge amounts of information and rapid changes over time make it difficult to find and receive relevant messages. |

| | |
|---|---|
| Two-way communication promotes interactivity, consumer engagement, and is thus able to increase health awareness. | Lack of space - some platforms (eg. Twitter, TikTok) have a character or time limit. |
| The most suitable format and style among channels, fast and flexible message dissemination. It makes it easy to share information, making it easily accessible. | Different regulations depending on the geographical region – no central control, content management and authentication. |
| Diverse target audience - (theoretically infinite) reach regardless of time and place. | In many cases, there is only one-way communication, no proper content management. |
| Low cost, high efficiency. | Lack of reliability and control. |
| It can increase the potential impact and timeliness of health and safety information. | Due to lack of resources and lack of capacity, it is a problem to constantly update the pages – in many cases there are no continuous updates. |
| **OPPORTUNITIES** | **THREATS** |
| Possibility to use high quality content elements (audio, video, image). | Using frightening images on a health topic – can provoke resentment. |
| Following "good practices", regular updates. | Lack of control, dangers of misinformation due to anonymity. |
| The size of the target audience - a huge crowd can be reached at the same time, and a high degree of interest can be generated quickly. | Lack of reliability, dangers of insolvency. |
| Multiple platforms can be used and involved in one campaign, linking to other sites – the commitment and awareness even more can be increased (e.g. by involving virtual worlds.) | Restricting devices and content – it can lead to reduced efficiency. |
| Support each other on the side of traditional and social media tools to raise health awareness. | Lack of updates can reduce interactivity - lack of interactivity reduces engagement. |
| It can empower the consumer to make more health-conscious decisions. | Limited audience access (e.g. demographic barriers, territorial lack of internet). |
| Cost-effectiveness – the amount of human and material resources depends on the use and involvement of other platforms. | Due to different regulations, there is no central control → this is a key concern, particularly in case of health-related content. |

Source: Author's own compilation

**H1    Social media is capable tool for effective information dissemination; however, it can be a threat if social media information on health promotion and disease prevention is uncontrolled.**

Based on secondary research, it can be clearly seen that social media has become more and more popular in last few years. From the continuous increase in the number of users and based on the findings of literature research, it can be concluded that the use of social media is increasingly complementing the use of traditional media tools for sharing of information related to health promotion and disease prevention. However, the use of social networking sites is not only increasing at the level of individual users.

Data also show that the number of companies using the Internet has increased by 18% since 2013, and now almost half of these companies use social media. Therefore, literature sources and secondary data also support that in addition to C2C communication, social media can also be considered as an effective tool in B2C communication. During the SWOT analysis, it turned out that in connection with health promotion and disease prevention, users like to rely on the personal experiences of other users, and a large number of communications take place at the C2C level. Nevertheless, this information is not controlled, the authenticity of the content is not checked, which is mainly due to the non-uniform regulation. Literature sources have also confirmed that the lack of credibility and reliability as well as data protection concerns are an extremely serious problem for social media devices. Much of the problem derives from anonymity, and in my opinion, the situation could only be improved by standardizing regulation, with the help of central control, and with transparent measurement indicators.

Based on the results of the SWOT analysis, literature research and secondary data (Statista, KSH, Research Center), I accept hypothesis H1.

## 3.2. Results of secondary research related to factors influencing health awareness

The results are presented along the situation assessment of the risk factors identified during the literature review, on the one hand, and the review of measures and services aimed at improving the quality of life, on the other hand.

In assessing the situation of risk factors, in addition to the descriptive statistics, I tried to combine the indicators belonging to each of the main areas, in order to find correlations and draw conclusions based on this. The related literature review showed that an increase in life expectancy is a trend, a phenomenon seen in most developed countries. The general upward trend in life expectancy may be due to the improvement of living conditions and the development of medicine on the one hand, and the spread of health-conscious consumer behaviour on the other.

I summarized the indicators along three following dimensions: nutrition dimension (life expectancy according to fruit and vegetable consumption), harmful addictions dimension (life expectancy according to smoking and alcohol consumption), and exercise or fitness dimension (life expectancy according to physical inactivity and obesity). Along each dimension, I examined the direction in which the studied countries are located compared to the EU average, and then I compared the average life expectancy at birth of the best and worst performing nations along the given dimension.

Along the nutrition dimension, the results show that life expectancy at birth is above the EU average in each of the best-performing countries (based on vegetable and fruit consumption), while countries below the EU average – including Hungary – are among the worst performers. In addition, population of best-performing countries lives with an average of four more years than the worst performers.

Along with harmful addictions, I found that Hungary is below the EU average in both indicators (smoking and alcohol consumption), thus, it is not surprisingly among the worst performers along with the other V4 countries. Residents of the best-performing countries in terms of research live on average 3.4 years more than those of the worst performers.

The third dimension was developed along the lines of physical inactivity and obesity. In the critical zone (little physical activity, many obese) there are nations with a high rate of physical inactivity (i.e. a large proportion of the population only exercises for up to 1 hour per week), and in addition, the proportion of obese people is high. In addition to Hungary, this zone includes France, Greece, Lithuania, Portugal, Latvia, the Czech Republic, Croatia and Malta. The average life expectancy at birth for the best performers is almost one year higher than the average for the worst performers. However, in order to evaluate the situation in Hungary, I also wanted to examine how it performs in relation to itself along the three dimensions examined compared to the situation of last 10 years. The related results are summarized in Table 2.

**Table 2: The situation of Hungary along the examined dimensions**

| Change along the dimensions examined | | 2008 | 2018 | Change from a health perspective |
|---|---|---|---|---|
| Life expectancy | | 70,0 | 76,2 | ⬆ |
| Nutrition* | Daily vegetable consumption (% of population) | 52,0 | 30,3 | ⬇ |
| | Daily fruit consumption (% of population) | 68,0 | 39,7 | ⬇ |
| Physical activity* | Obesity (% of population) | 20,0 | 20,0 | ⬌ |

| | | | | |
|---|---|---|---|---|
| | Physical inactivity (% of population) | n.a. | 51,4 | |
| Harmful addictions | Daily smokers (% of population) | 26,5 | 25,8 | ⬆ |
| | Average annual alcohol consumption (liters/person/ year) | 11,8 | 10,7 | ⬆ |

Source: Author's own compilation

The Hungarian healthcare system is becoming increasingly centralized, but extremely underfunded. Compared to the EU average, Hungary spends much less on health care, both in absolute terms and as a percentage of GDP. Per capita health expenditures amount to EUR 1,468, which is the last place among the V4 countries, but Hungary is also almost at the back of the European Union as a whole.

The share of government and compulsory social security in public health accounted for just over two-thirds of total health expenditure in 2017, while direct household contributions account for 27%, well above the EU average (16%), more than one and a half times (OECD, 2019). Due to the centralized nature of the health care system, there is strong pressure on the state in the field of health promotion.

Nevertheless, in recent years political decision-making level has made significant efforts to raise health awareness as listed below:
- In order to improve consumers' eating habits, a public health product tax was introduced in 2011 to reduce the consumption of unhealthy foods.
- In 2013, legislation on the restriction of trans fatty acids in food was adopted.
- In 2015, stricter regulations were introduced, including in school catering.
- The rate of excise duty on tobacco and alcohol products has been increased.
- By expanding the range of mandatory vaccinations (inclusion of HPV vaccination in the vaccination program), the rate of childhood immunization is exceptionally high at the EU level as well – by continuing a strong health policy the quality of life can be increased through the state level.
- The Hungarian Cycling Federation, founded in 2002, started Cycle to work! campaign in 2007 – a campaign to promote cycling to work and increase health awareness in addition to relieving the burden on the transport system.

In addition, the number of sports organizations and the average revenue per organization have increased significantly compared to 2005 – revenue has more than quadrupled, but the number of organizations has also increased by 36%. Revenue trends and dynamic growth are most spectacular since 2014. Thus, we can say that there are more and more sports associations in Hungary, which have more and more income, which can be used to encourage a sporty lifestyle and to develop health awareness (KSH, 2020).

In connection with the employer or corporate research level, I consider it important to mention the Széchenyi Rest Card, or so-called SZÉP card, which was introduced in 2012 as an incentive for employees. Depending on the purpose of the benefit (accommodation, hospitality or recreation pocket), SZÉP cards can be used for various sports and recreational purposes, as well as for spa holidays, spa tickets, wellness relaxation and cultural programs. The number of SZÉP card acceptance points and places has increased by 26% since its introduction, while the values on the card have tripled (KSH, 2020).

Also, in connection with employers, the so-called Fittest Workplace Award was established in Hungary in 2013, with the aim of mapping the health status of the Hungarian labour market and the areas to be developed, and thus encouraging both employees and employers to take action. The award is given each year to the most deserving company in four categories (large enterprise category, medium enterprise category, small enterprise category, public administration category).

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**H2    As a result of the 4th Industrial Revolution, the concept of sustainable development and the health challenges posed by the COVID-19 pandemic have recently led to an increase in disease prevention and quality of life services, which have an impact on employment and economic structure, thereby boosting economic growth.**

The preliminary literature review explored potential areas for occupational health promotion and its positive effects on workers, companies and the whole economy. Not only does the company benefit from reducing job absences, but it also benefits the state and society through reduced sickness expenditures. Empirical research demonstrates that internal CSR activities, including workplace health promotion, reduce turnover and can be an effective tool of retaining employees as well as addressing labour shortages.

Based on secondary data, it can be concluded that in recent years there has been an increasing focus on health care at the state and institutional levels, and thus not only the amount of health and sports benefits provided to households and the number and income of sports associations were increased, but also health care providers, services and measures.

Based on the literature review and secondary data analysis, hypothesis H2 is confirmed.

### 3.3. Results of primary research

### 3.3.1. Results of data analysis related to consumer openness to the use of social media to develop health awareness

Before describing the demographic characteristics, it is essential to notice that respondents cannot be characterized by a representative sample with national coverage. Respondents must be adults and they must have relevant work experience—no other inclusion and exclusion criteria were set up during data collection. Most respondents were women, with exactly 338 women (62.9%) and 199 men (37.1%) completing the questionnaire. The vast majority of respondents were in age groups of 30–39 (32.4%) and 40–49 (37.8%). This can be evaluated as a normal distribution, regarding the rate of these two groups in active population. The largest proportion of the respondents have higher education level (27.7% of them have BSc degree, more than 40% of them have MSc degree and 8.4% of them have postgraduate, doctoral degree), which may determine and correlate with their income status. Based on their self-evaluation the net income per capita in their family is above the average (50.8%) or much higher than average (17.1%) in Hungary. In terms of industry where respondents work, they represent almost every group in a similar proportion.

The vast majority of respondents in the questionnaire survey consider themselves to be moderately (44.5%) or very healthy (45.4%) based on their self-reports. Only about one-tenth of the sample responded to one of the extremes, feeling extremely healthy (4.8%), less (3.9%), or not at all (1.3%). 14.9% of the respondents do physical work and 85.1% do office work.

According to the respondents, regular exercise, healthy nutrition and appreciation or recognition (as part of mental health) are the most important areas for their health, while insurance is considered the least important. Regular exercise was considered important or very important by 68.5% of respondents, healthy nutrition by 75.8% of respondents, mental health by 77.1%, and insurance by only 38.9%. This also supports the result of qualitative research that there are areas of health and health promotion that consumers expect from some external actor (e.g. employer) and consider it less important in their own daily lives. With regard to gender, it can be clearly seen from the data that women are a bit more affine about health-conscious behaviour, as all dimensions except regular exercise were considered more important than in case of men.

Regarding current lifestyle habits, the following results were collected based on the questionnaire answers:
- In the total sample, 10.2% of respondents said they never drink alcohol and only 2.4% of them drink daily. Most, 28.5% of the respondents answered that they consume alcohol less than a monthly basis, but in this category women

- were strongly overrepresented, while regular alcohol consumption was most common among men.
- Regarding smoking, I found that 76.9% of the respondents do not smoke - 56.9% of them have never smoked and 19% of them have already quit smoking. Women are in the majority among never smokers, while men are overrepresented among quitters.
- In order to protect their physical health, half of the respondents (50.6%) do some sport activities at least 2-3 times a week, while at least daily consumption of vegetables and fruits is typical for 68.7% of them. The WHO recommendation detailed in the literature review that we should consume vegetables and fruits several times a day is followed by 28.5% of respondents. Differences by gender are already more visible, since women are typically preferring to go through a healthy diet, while men try to maintain their physical health through regular exercises.
- The importance of prevention would be considered important by both men and women, however, while the majority of men go only to mandatory screenings (49.2%), a significant proportion of women also participate in recommended screenings (53.6%).

Based on the results on social media usage habits, after various search applications, social media sites were the most popular among the respondents, most notably the use of Facebook, Youtube and Instagram, which also matches the results of the social media capability study performed by the Author. 43% of respondents spend less than an hour and 40% spend 1-2 hours on an average day on social networking sites, probably due to targeted content consumption. Respondents prefer text content (56.6%), photos with text (63.1%) and videos (52.1%) when collecting information on healthy living, but interactive applications (13.4%), various events (15.5%) and podcasts (9.5%) are also popular. The results confirm my conclusion based on the social media capability test and the SWOT analysis of social network sites that social media applications can be considered as a suitable tool for effective information transfer.

After the univariate and bivariate analyses, I turned to multivariate statistical methods to validate the model and to build consumer groups. To analyse this part of the questionnaire, I performed a factor analysis to validate the model. Prior to performing the factor analysis, the applicability of the method was verified using KMO and Bartlett test. The results of the preliminary tests (KMO = 0.746 (appropriate), Bartlett: the correlation matrix is significantly different from the unit matrix, with a significance level of $p < 0.01$) also confirm that factor analysis can be performed. As a method of performing factor analysis, I used principal component analysis with varimax rotation. To test the suitability of the data, I checked the data of the anti-image correlation matrix, and since the values on the diagonal exceeded 0.50 in all cases (values: 0.537 - 0.854), I did not remove none of the variables for the final data analysis.

After performing the principal component analysis, the total variance ratio explained by the components is 67.03%. For the surveyed respondents, health-conscious behaviour can be realized along 5 dimensions.:

- Factor 1: **social media factor**, which includes all indicators that measure the use of social media to develop health-conscious behaviour.
- Factor 2: **mental and emotional health factor**, which includes a stress-free lifestyle and proper stress management, the importance of meditation, and appreciation / recognition.
- Factor 3: **physical health factor**, which measures attitudes towards healthy nutrition through fruit and vegetable consumption, and regular physical activity.
- Factor 4: **prevention factor**, which includes an insurance factor that also strengthens screening and financial security.
- Factor 5: **harmful addictions factor**, which contains the most common harmful addictions: smoking and alcohol consumption.

I assessed the attitude towards the use of social media in relation to health promotion and disease prevention with the help of 4 questions (social media factor), which could be answered by using a five-point Likert scale (1 = strongly disagree, 5 = strongly I agree). The statements are related to regular use, reliability, incentive power and timeliness (up to date information). In the rest of the analysis, the openness variable was created based on the answers to the first question (regular use) - I considered the one who answered this question with a value of at least 3 to be open, I considered the respondents who answered with values of 1 and 2 to be refuser. It was important not only to think that social media could be an incentive, but also to be a potential user for that purpose. Based on this, 57% of the respondents (307 people) consider it open and 43% of them (230 people) reject it, which means a large potential market, i.e. there are great opportunities to use social media for build or increase health awareness.

Within the heterogeneous population, cluster analysis was the method of statistical analysis used to identify consumer groups that were homogeneous and similarly minded in terms of health awareness and healthy lifestyle. For the cluster analysis, I used the standardized variables in case of each indicator found in the lifestyle factors, as I was interested not only in the opinion of the individual factors, but also in the indicators within the factors. Cluster analysis was performed by using the K-means method. The relationship between individual clusters and openness to social media usage was examined by cross-tabulation analysis. The identified 4 clusters and the standard deviations from the average according to the indicators are illustrated in Figure 5.

The four different attitudes indicate how divided the respondents are in the importance of health awareness in assessing the dimensions of a healthy lifestyle.

**Figure 5: Characteristics of identified clusters**
Source: Author's own compilation

By comparing each group with socio-demographic data, I examined whether there is a socio-demographic characteristic that can influence such diverse opinion formation, i.e. whether it can play a key role in attitudes towards a healthy lifestyle, and in which consumer group someone is. However, I also examined whether there was a correlation between group inclusion, and thus, lifestyle factors and openness to the use of social media towards increasing health awareness.

Based on the gender representation of clusters, a significant, weak correlation (p<0,001 and Cramer's V= 0,201) can be justified between clusters and genders. Based on this result it can be concluded that women are more likely to be health conscious than men. No significant correlation could be established with respect to age (p = 0.154), although a smaller proportion of respondents belong to the group of unhealthy careless people as they age.

Examining the correlation between the place of residence (settlement type) and the consumer groups, it can be stated that there is a significant, weak correlation between the variables (p <0.001 and Cramer's V = 0.127). People living in small towns and in Budapest are more health-conscious, while villagers typically lead unhealthy lifestyle.

When it comes to the relationship between the highest level of education and the level of health awareness, it can be clearly seen that there is a significant, weak correlation between the highest level of education and different lifestyles, i.e. education affects the consumer group to which the consumer belongs (p <0.01 and Cramer's V = 0.146). I also do not represent primary school separately in this case due to the small number of items. Furthermore, it can be identified that the

highest proportion of graduates are health conscious (PhD holders: 57.8%, MSc: 49.1%, BSc: 43.6%). This fact is probably also related to income levels, based on which I also found a significant, weak correlation (p <0.01 and Cramer's V = 0.136), i.e. the higher the consumer's income, the more health conscious.

For the sector of work and clusters, the relationship is significant but weak (p <0.05 and Cramer's V = 0.217). In addition to occupation, the type of work performed also has a significant effect on group-level affiliation, with a greater proportion of office workers being health-conscious than physical workers; the correlation is weak (p <0.001 and Cramer's V = 0.219). The detailed results for the significant correlations can be seen in Figure 6.
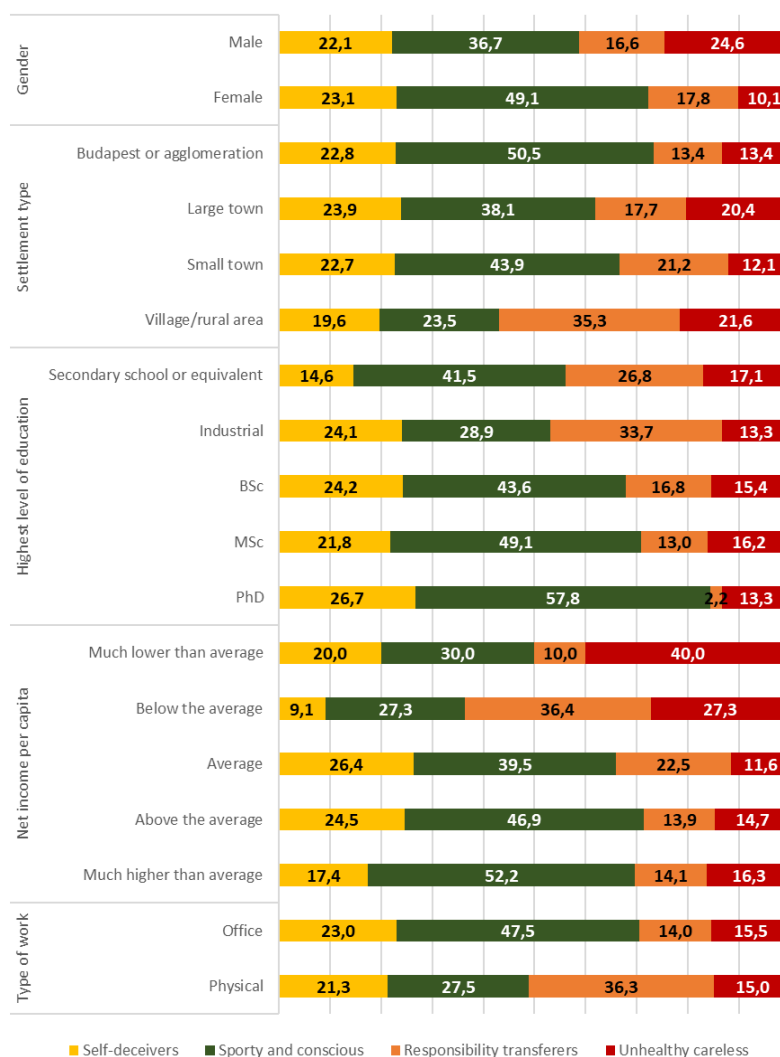


**Figure 6: Significant correlations between socio-demographic factors and clusters (%)**
Source: Author's own compilation

Examining the relationship between the identified clusters and the openness to the use of social media in health promotion, I found that there is a significant, weak correlation between the examined variables (p <0.001 and Cramer's V = 0.241). This means that the fact in which consumer group the consumer belongs to – as a result of what lifestyle he or she leads –, has an impact on how open the consumer will be to use social media applications for health promotion and health awareness.

Subsequently, I also examined whether there is a significant correlation between socio-demographic characteristics and openness along different demographic factors. When examining the correlation of openness along socio-demographic factors, I found a significant correlation with openness in terms of consumer gender (p <0.01 and Cramer's V = 0.209) and highest level of education (p <0.05 and Cramer's V = 0.153). Women and respondents with lower levels of education are most open to use social media applications in order to develop their health awareness.

**H3 Socio-demographic factors influence the possibility of increasing health-conscious consumer behaviour through the openness on use of social media.**

Among the socio-demographic factors, a significant correlation could be found between gender and type of residence (settlement type) in terms of openness, of which the gender of the respondent had a greater impact on openness. There is no significant correlation between other demographic factors and openness to the use of social media for health purposes. Consequently, I can partially confirm hypothesis H3.

**H4 Factors related to current lifestyle have a greater impact on openness to health-conscious use of social media than socio-demographic factors.**

Based on the results, lifestyle factors showed a significant correlation with openness through the clusters, which was stronger than with socio-demographic factors. As a result of principal component analysis, cluster analysis, and cross tabulation analysis, hypothesis H4 is confirmed.

**H5 Homogeneous groups can be identified among users of social media applications that are suitable for characterizing respondents based on their consumer attitudes.**

During the cluster analysis, I identified four groups of consumers with different lifestyle profiles: the group of self-deceivers, sporty and conscious, responsibility transferors, and unhealthy careless consumers. Based on the results, I accept hypothesis H5.

### 3.3.2. Results of PLS-SEM analysis

The results of the PLS-SEM analysis serve to test hypotheses H6 and H7 of my dissertation. The main aspect of my research was to use the indicators to explore exactly which work benefits (which factors and indicators) can play a role in the development and increase of employee satisfaction, and through this in increasing employee loyalty.

As a result, the analysis and the results of my research can be of practical significance for the top management of companies. One of my objectives is to provide support to companies in better understanding of the benefits and factors that play a role in the development of the loyalty of their employees. In addition, my goal was to find out which benefits can be applied and implemented at the small and medium-sized enterprise level, and what of them can be most effectively used for increasing employee satisfaction.

Based on the descriptive statistics of the dependent and independent variables, it can be identified that it was not enough to evaluate the variables at two levels, the independent variables had to be further examined according to which independent variable may affect which another variable. The different levels of the variables, each study layer, are illustrated in Table 3.

**Table 3: Structure of variables**

| First layer | Second layer | Third layer |
| --- | --- | --- |
| Insurance | Healthcare support | Employee well-being |
| Preventive care | Physical health | Employee satisfaction |
| Healthy nutrition | Emotional health | Employee loyalty |
| Mental health | | |

Source: Author's own compilation

**Assessment of outer, measurement model**

Data analysis should be started by assessing the construct validity and consistency reliability of the measurement model (HAIR ET AL., 2016). According to the rule defined by HAIR ET AL. (2016), all the outer loadings should above the threshold value of 0.70 to measure the individual item reliability and composite reliability (CR) should be higher than 0.7 thresholds (0.60 to 0.70 is considered acceptable) to measure the construct internal consistency in PLS. There were some indicators with outer loadings' Cronbach Alpha values under 0.7, therefore, all of them were removed from final model. Overall, five items were removed from scale measurement—one item from healthy nutrition, three items from mental health and one item from physical health were eliminated from the scale.

Construct validity is determined by convergent validity and discriminant validity. Average variance extracted (AVE) is used to examine convergent validity. According to FORNELL AND LARCKER (1981), AVE values should be above

0.5. AVE values of all indicators exceeded 0.5 and the composite reliability of the factor model was higher than 0.7 in all cases. AVE value indicated that constructs achieve adequate convergent validity. Table 4 demonstrates all values of composite reliability and convergent validity related to the model.

**Table 4: Results of outer model - reliability and convergence validity**

|  | Cronbach Alfa | rho_A | CR | AVE |
|---|---|---|---|---|
| **Emotional health** | 0,881 | 0,884 | 0,913 | 0,680 |
| **Healthcare support** | 0,841 | 0,847 | 0,894 | 0,680 |
| **Healthy nutrition** | 0,805 | 0,809 | 0,885 | 0,720 |
| **Insurance** | 0,891 | 0,907 | 0,917 | 0,649 |
| **Employee loyalty** | 0,893 | 0,903 | 0,926 | 0,758 |
| **Mental health** | 0,787 | 0,787 | 0,864 | 0,615 |
| **Physical health** | 0,759 | 0,758 | 0,847 | 0,582 |
| **Preventive care** | 0,737 | 0,765 | 0,834 | 0,558 |
| **Employee satisfaction** | 0,902 | 0,910 | 0,925 | 0,672 |
| **Employee well-being** | 0,769 | 0,777 | 0,867 | 0,685 |

Source: Author's own calculation

Multicollinearity analysis was performed using the Heterotrait-Monotrait ratio of correlations (HTMT) criteria. It is recommended that HTMT values should be ideally be below 0.85 (HENSELER ET AL., 2015). All the values of HTMT achieve this, with the exception of employee satisfaction and employee loyalty where there HTMT value is 0.941. This is due to the close similarity between the item measures for both variables, although they are not identical. Moreover, both these variable items are adopted from previous empirical studies which validates the criterion validity. Additionally, referring to (HAIR ET AL., 2017), HTMT values above 0.9 is not desirable while 0.95 is the threshold that will make it definitely undesirable.

Hence, the value in this result is below 0.95, while taking into account these variables (satisfaction and loyalty) were using items previously tested and validated in former empirical research and having met composite reliability high scores and passed the AVE threshold test, this study retains the variables for hypothesis testing.

**Assessment of inner, structural model**

The results for the evaluation of the internal structural model for this part of the research, the values of the path coefficients, the T-statistics and p-values associated with each route, and the coefficients of determination are shown in Table 5.

**Table 5: Bootstrapping results and hypotheses testing**

| Relationship | Path Coef. | T statistics | P | $r^2$ | Test result |
|---|---|---|---|---|---|
| Emotional health -> Employee loyalty | -0.011 | 0.311 | 0.756 | 0.737 | not supported |
| Emotional health -> Employee satisfaction | 0.101 | 1.557 | 0.120 | 0.034 | not supported |
| Emotional health -> Employee well-being | 0.584 | 9.405 | 0.000* | 0.488 | supported |
| Healthcare support -> Employee loyalty | -0.016 | 0.61 | 0.542 | | not supported |
| Healthcare support -> Employee satisfaction | -0.139 | 2.666 | 0.008* | | supported |
| Healthcare support -> Employee well-being | 0.1 | 2.044 | 0.042* | | supported |
| Healthy nutrition -> Mental health | 0.535 | 15.853 | 0.000* | 0.287 | supported |
| Healthy nutrition -> Physical health | 0.461 | 11.44 | 0.000* | 0.212 | supported |
| Insurance -> Healthcare support | 0.551 | 11.98 | 0.000* | 0.458 | supported |
| Mental health -> Emotional health | 0.327 | 7.857 | 0.000* | 0.107 | supported |
| Physical health -> Employee loyalty | -0.035 | 1.629 | 0.104 | | not supported |
| Physical health -> Employee satisfaction | 0.117 | 2.611 | 0.009* | | supported |
| Physical health -> Employee well-being | 0.215 | 5.066 | 0.000* | | supported |
| Preventive care -> Healthcare support | 0.198 | 3.937 | 0.000* | | supported |
| Employee satisfaction -> Employee loyalty | 0.858 | 53.416 | 0.000* | | supported |
| Employee well-being -> Employee loyalty | 0.039 | 1.046 | 0.296 | | not supported |

Source: Author's own compilation

Based on the results, the research found a significant correlation for 11 of the 16 paths outlined in the conceptual framework model (and the table above), and in 5 cases the hypothesis for the path was not supported. Based on the bootstrapping results, Figure 7 shows the direct effects between each factor, highlighting significant pathways based on supported hypotheses that illustrate the direct effect

of independent variables (First layer and Second layer variables) on dependent variables (Third layer variables).
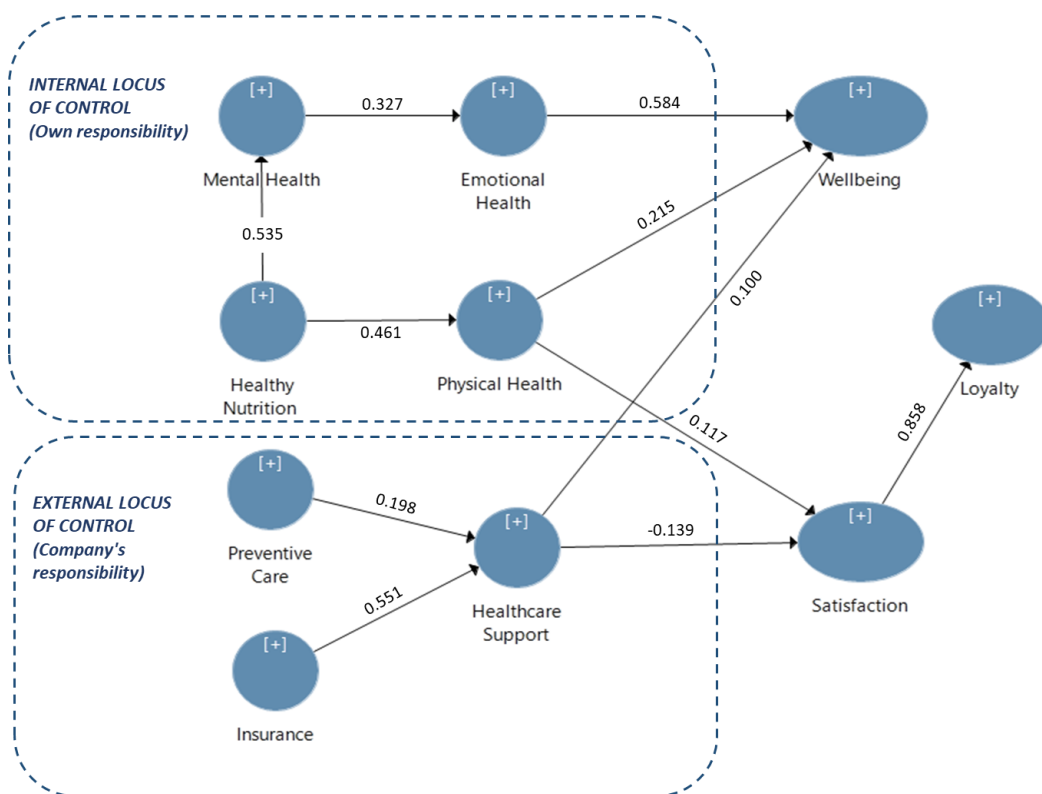


**Figure 7: Direct effects and significant pathways in the model**
Source: Author's own compilation

Consequently, the workplace employee well-being, satisfaction and loyalty dynamics (i.e. endogenous variables) from the perspective of employees seem to be explained in 3 major dimensions. They seem to be centered around three major categories of determinants (i.e. second layer variables) that impacts well-being, satisfaction and loyalty uniquely. The primary research found that (1) healthcare support (2) physical health and (3) emotional health are important pre-determinants to employee well-being.

The findings seem to suggest the invisible layers of "internal locus of control" and "external locus of control" in this research.

The internal locus of control factors i.e. healthy nutrition, mental health, physical health and emotional health are self-managed and hence these factors lead to employee well-being, but do not lead to workplace satisfaction and loyalty.

On the contrary, facilities that are provided by the organization "external locus of control" i.e. preventive care, insurance and healthcare support have a twin-role in

impacting employee well-being and satisfaction with their workplace. It shows that fundamental healthcare support systems such as preventive care (screening, vaccination) and insurance must be in place in a workplace to ensure employee satisfaction and eventually their loyalty. These are considered hygiene factors.

Employee well-being appears as a standalone endogenous construct, which is largely impacted by employee "self-initiatives factors", hence although organizations may be advocating "well-being" as an organization-driven initiative at the workplace, employees still perceive well-being as their own locus of control and do not attribute it towards their satisfaction and loyalty towards the organization.

This is a peculiar finding in this research as previous literatures in organization development have often supported strong linkages between organizational initiative to employee well-being to their productivity and retention. However, in my opinion, the results could also give a new direction to the field of research.

Based on these findings, I theorize that during times of crisis, employees become more self-reliant and think about self-preservation. During this process, perhaps they disassociate the promotion of well-being at workplace and their loyalty to workplace. Especially during this recent COVID-19 pandemic, most employees were working from home and did not have physical presence in the office or work premises.

As such, they would have felt less physical protection from workplace and hence resort to self-preservation and reliance in order to cope with the new norm. Nevertheless, in many areas, employees' jobs and livelihoods have become precarious, so that at present work benefits have not primarily affected their relationship with their employer. The importance of physical health, mental health, and thus emotional health is also likely to have increased due to the COVID-19 epidemic.

As this is a new phenomenon observed through the findings of this empirical research, I theorize this behaviour as workers' self-reliance and preservation. It is a condition where workers become more conscious of their own role and become self-dependent for their own well-being.

Although employee well-being efforts are also promoted by their employer, employees seem to view it as their internal locus of control during pandemic. This can be viewed as an act of self-preservation and survival during times of crisis and pandemic.

**H6 Factors related to workplace health promotion that affect employee well-being can be grouped into two groups according to whether the employee considers the benefit to be the responsibility of himself or herself or the employer, but each of these has a positive effect on well-being.**

The results of the PLS-SEM analysis supported the findings of qualitative research that some of the health-related dimensions are perceived by employees as more their own responsibilities and transfer control to the employer only for certain factors. The results refer to the invisible layers of "internal control" and "external control". Internal locus of control factors, i.e. healthy nutrition, mental health, physical health, and emotional health can be independently managed, so while these factors have a significant impact on employee well-being, they do not directly lead to employee satisfaction and loyalty. Factors provided by an organization or company acting as "external locus of control" factors, i.e. preventive care, insurance and healthcare support (rehabilitation), have a dual role in influencing employee well-being and employee satisfaction, as they affect both endogenous factors. Based on the results of PLS-SEM analysis, hypothesis H6 is confirmed.

**H7 Among the factors influencing employee loyalty through employee satisfaction, external control factors, especially prevention and healthcare support are primary in terms of increasing loyalty.**

Healthcare support, insurance (related to financial health) and preventive care appear as external control factors in the model, meaning that research participants perceive them as the responsibility of the employer, thus not only affecting their well-being but also their level of satisfaction with their employer, and ultimately they have also an impact on employee loyalty. Thus, in terms of employee loyalty, external control factors play a primary role, and consequently, based on the results of the PLS-SEM analysis, hypothesis H7 is confirmed.

## 3.4. Relationships between research levels – knowledge-based health promotion framework model

The knowledge-based health promotion framework model created as a result of my research (Figure 8) summarizes the levels examined during the research, the influencing factors (as determinants), endowments and results related to each level. Furthermore, the model also suggests the potential use of social media applications in promoting health awareness.

Based on the theoretical framework model, the state (institutional) or political decision-making level has an impact on the lives of both companies and consumers, since it can influence economic actors towards more health-conscious behaviour through subsidies, health promotion programs and services.

At the same time, each country has endowments that it cannot, or only with great difficulty, change in the long run – such as agricultural endowments (the supply of arable land is completely inelastic in addition, it depends on the endowment in which country how many vegetables and fruits can be produced, i.e. how many imports are needed); the characteristics of the healthcare system (infrastructure, supply, accessibility, etc.). Available costs and time usually also appear as an endowment for all economic operators. Influencing factors or determinants (some or all of which we can change) in relation to the state level include laws, national and international standards and norms, and international commitments such as the United Nations Sustainable Development Goals.

When it comes to the corporate or employer level, factors influencing the promotion of health-conscious consumer behaviour may include corporate strategy, internal regulations for human resource management, and occupational health and safety regulations.

In terms of consumer level, there are socio-demographic factors and lifestyle factors supported by primary, empirical research. The applicability of social media is possible at all levels, as social media applications can operate effectively not only between the consumers (C2C communication), but also between business organizations (B2B communication) and in a business-consumer relationship (B2C communication). Furthermore, companies can best reach their own employees through internal CSR activities, during which they can also use social media solutions.

In terms of results, the dissertation shows the economic and social benefits already detailed - at the state level mainly an increase in life expectancy at birth or a decrease in sick pay, at the company level an increase in employee well-being and satisfaction, cost savings due to reduced absences, productivity and competitiveness and improving the image, while at the consumer level increasing well-being and improving the quality of life.
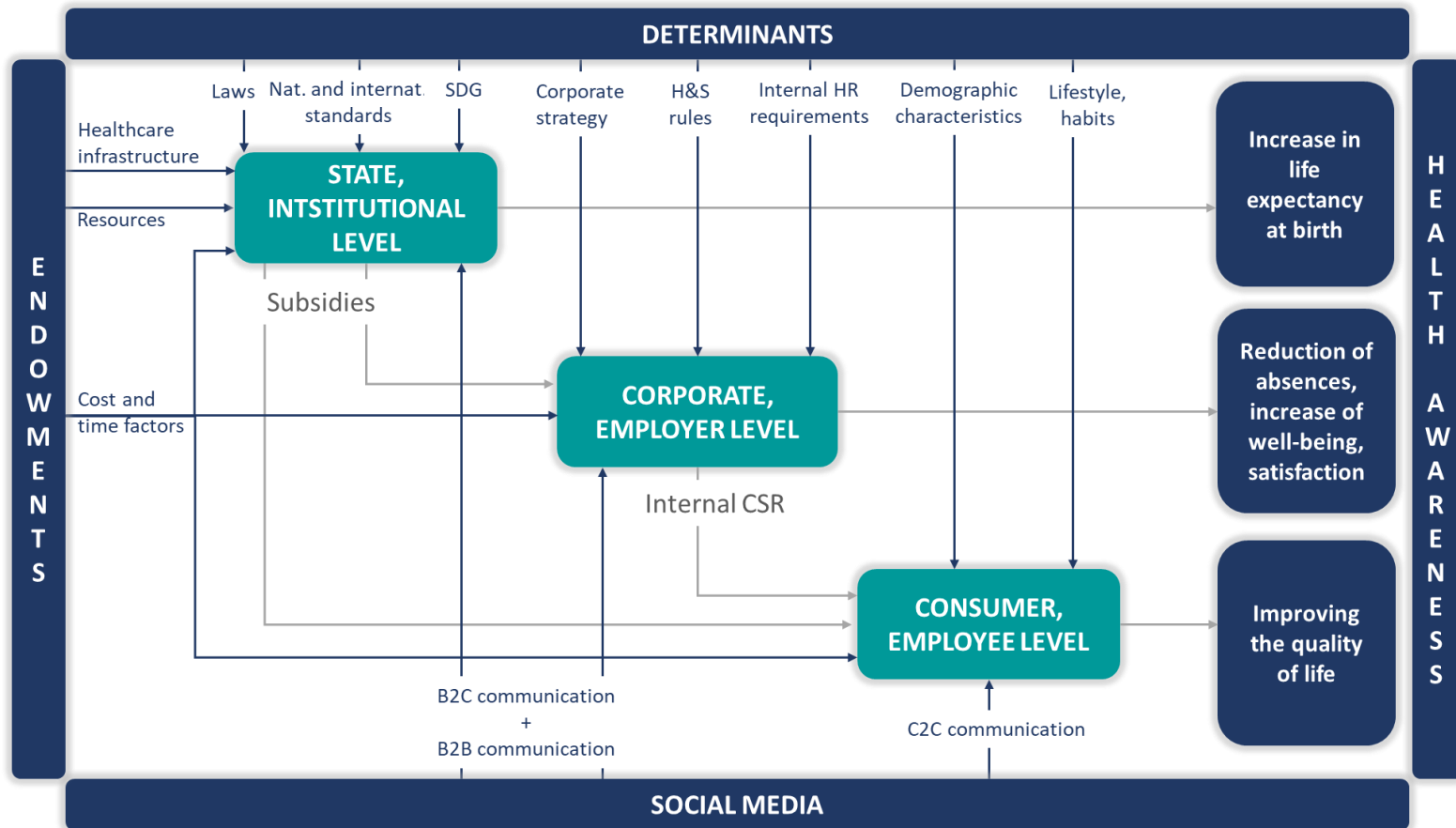
**Figure 8: Knowledge-based health promotion framework model**
Source: Author's own compilation

# 4. CONCLUSIONS AND RECOMMENDATIONS

My dissertation is an extensive research that fills a gap through its complexity, analysing health-conscious consumer behaviour as a factor of social sustainability, as well as the potential for health promotion in social media applications, and the role of knowledge management tools in all of this. The logical model created as a result of the research, the knowledge-based health promotion framework model, connects all the three research levels. During the secondary and primary research, I examined the factors influencing health-conscious consumer behaviour at the international and domestic level, the role and direct impacts of health-related work benefits on employee well-being, satisfaction and loyalty, and the potential role of social media in promoting health promotion and health awareness. In my dissertation, I examined the state (institutional) level primarily through the secondary data analysis, while I focused on the employer and consumer levels through the primary research results.

Research has indicated that health-conscious consumer behaviour is influenced by several factors related to our lifestyle, but the most critical lifestyle factors can be found along different risk factors.

My research has supported that social media can be a suitable tool for effective communication and message dissemination regarding health awareness information. The practical significance of the relevant results lies in the fact that it is easier for company managers and marketing professionals to target, which further increases the efficiency of message transmission. In summary, the feedback from research participants provided a valuable picture of consumer attitudes toward health, health awareness, social media usage habits, consumer perceptions and current behaviour.

Another main objective and practical significance of the primary research was to examine the role and impact of health-related work benefits on employee well-being, satisfaction and loyalty. The results of PLS-SEM analysis also supported the findings of preliminary qualitative research that some of the health-related dimensions are perceived by employees as being their own responsibility (not necessarily expected by the employer to improve their physical or mental health) and they "transfer" responsibility and control to the employer only in case of certain factors (e.g. financial health). Based on this, the exogenous variables could be divided into two groups, which can be called as internal control factors and external control factors. Based on the results, I concluded that the internal control factors, i.e. healthy nutrition, mental health, physical health and emotional health factors, can be independently controlled in the eyes of the employees, thus these factors have a significant impact on the employee well-being, however, they do not lead directly to employee satisfaction and loyalty. In contrast, external control factors such as insurance (related to financial health), healthcare support (rehabilitation), and disease prevention (prevention) are likely to make employees

feel more responsible to the employer, thereby also affecting employee well-being and their satisfaction with their employer. As a result, external control factors should be very important in implementing the organization's functional workplace health promotion system.

I believe that the phenomena and contexts explored in the dissertation will help to gain a deeper understanding of motivators and determinants of health awareness, increase the effectiveness of communication and messaging through social media, and improve the literature and methodology of the field. Approaching and addressing health awareness as a priority can also help to improve the quality of life by contributing to the UN Sustainable Development Goals.

The examination of the hypotheses formulated along the objectives can be found at the end of each subsection, however, Table 6 summarizes the evaluations related to each hypothesis.

**Table 6: Summary of hypotheses and their evaluations**

| | **Hypotheses** | **Evaluation** |
|---|---|---|
| H1 | Social media is capable tool for effective information dissemination; however, it can be a threat if social media information on health promotion and disease prevention is uncontrolled. | **Confirmed** |
| H2 | As a result of the 4th Industrial Revolution, the concept of sustainable development and the health challenges posed by the COVID-19 pandemic have recently led to an increase in disease prevention and quality of life services, which have an impact on employment and economic structure, thereby boosting economic growth. | **Confirmed** |
| H3 | Socio-demographic factors influence the possibility of increasing health-conscious consumer behavior through the openness on use of social media. | **Partly confirmed** |
| H4 | Factors related to current lifestyle have a greater impact on openness to health-conscious use of social media than socio-demographic factors. | **Confirmed** |
| H5 | Homogeneous groups can be identified among users of social media applications that are suitable for characterizing respondents based on their consumer attitudes. | **Confirmed** |
| H6 | Factors related to workplace health promotion that affect employee well-being can be grouped into two groups according to whether the employee considers the benefit to be the responsibility of himself or herself or the employer, but each of these has a positive effect on well-being. | **Confirmed** |
| H7 | Among the factors influencing employee loyalty through employee satisfaction, external control factors, especially prevention and healthcare support are primary in terms of increasing loyalty. | **Confirmed** |

Author's own compilation

## Recommendations and future research directions

Companies in traditional operating model should continually monitor the achievements and challenges of industry 4.0, new trends and consumer habits resulting from digitalization and spread of ICT tools, hence they can continue to communicate effectively with their consumers or employees. Therefore, when planning health-related communication, it is recommended using also social media from both state and corporate sides, using the appropriate STP marketing, with the help of a well-structured marketing communication plan. Nevertheless, the lack of credibility and trustworthiness of social media devices as well as data protection concerns are an extremely serious problem. Much of the problem derives from anonymity, and in my opinion, the situation could only be improved by standardizing the legal regulatory environment by using central control, and transparent measurement indicators. At the same time, health promotion should be made an even more important issue at the level of health policy.

At the corporate level it can be concluded that a socially responsible company can gain advantages over its competitors such as increased competitiveness, an improved corporate reputation and image, and significant cost savings due to the loyalty and motivation of external and internal stakeholders, including their employees. As a result, one of my objectives was to develop a well-structured workplace health promotion framework that can be used at the SME level also. The practical implementation and validation of the model can be the basic of future research direction. Based on the results of PLS-SEM analysis performed as part of the empirical research, I observed a completely new kind of phenomenon, the crisis-induced employee autonomy (self-reliance and preservation), which may also give a new direction to research in the field. It would be advisable to repeat the research after the pandemic and to carry out an international comparative study with other developed or developing countries.

Furthermore, in the field of economics, it will be worthwhile to study the relationship between the characteristics of institutional economics and health-conscious consumer behaviour, and to conduct further behavioural economics research on health awareness and sustainability.

# 5. NEW SCIENTIFIC RESULTS

1. **My research verified that among the socio-demographic characteristics of consumers, the consumer's gender and the highest level of education influence the openness towards using social media for health promotion purposes.**
   My research results confirmed a significant correlation between consumer gender and openness. Based on my conclusions, women are more open to use social media in order to improve their health. However, I have shown an inverse relationship between consumer openness and educational level – the higher the educational level of consumers, the less open they are to use social media for the purpose mentioned above. During the data analysis, one dimension was a socio-demographic factor, while the other dimension was openness (a group of open respondents and refusers). I considered the correlation to be significant if the significance level of the test was $p < 0.05$. Among the measures of association tightness, I used the Cramer's V index.

2. **I identified consumer clusters among consumers using social media, according to health determinants related to their current lifestyle. I determined the demographic profile of each cluster.**
   Using multivariate mathematical and statistical methods, I identified four well-separable clusters of the studied population. By examining the correlation between each factor indicator and socio-demographic characteristics, I compiled a demographic map of each consumer cluster, which indicates the dimensions of consumer thinking in relation to health awareness. However, by examining the correlation between lifestyle factor indicators and social media openness, I demonstrated a significant relationship between belonging to a cluster and openness, thereby identifying consumer groups (and their current lifestyle characteristics) who are open to use social media for increasing health awareness. Of the identified clusters, the "Responsibility transferors" and "Sporty and conscious" groups are the most effective in using social media applications to raise health awareness.

3. **With the help of my research, I identified the health-related factors of employee well-being, employee satisfaction and loyalty, and assigned measurable health-related factor indicators. To the best of my knowledge, I first conducted such a comprehensive analysis by using PLS-SEM model, specifically on the impact of health-related work benefits on employee loyalty.**

4. **Based on the results of the structural model of PLS-SEM, I found that work benefits related to emotional health have the greatest direct effect on employee well-being ($\beta = 0.584$).**
   The test results refer to the invisible layers of "internal control" and "external control", therefore, based on route analysis, exogenous variables can be

classified into these two categories. Internal control factors i.e. healthy nutrition, mental health, physical health, and emotional health can be independently managed, so while these factors have a significant impact on employee well-being, they do not directly lead to employee satisfaction and loyalty. In contrast, external control factors, i.e. preventive care, insurance, and healthcare support (rehabilitation), have a twin role in influencing employee well-being and job satisfaction, and thereby loyalty.

5. **The results of my empirical research confirmed the separation of employee well-being and loyalty, which I experienced as a new phenomenon in the field. I theorize this consumer behaviour as crisis-induced employee self-reliance and preservation.**

   I describe the new concept as a state in which workers' awareness of their own well-being increases as a result of some external, unavoidable factor (e.g., COVD-19 pandemic), i.e. as a result of a crisis, they become more aware of their own role and become independent and responsible for their own well-being. While employees' efforts for their well-being are also facilitated by their employers, workers seem to see this as their own responsibility in times of crisis, especially in a pandemic that also affects and is associated with their health. Consequently, this behaviour can be considered an act of self-care and survival in times of crisis and epidemic.

6. **By linking the research levels, I set up a complex, knowledge-based health promotion framework model that includes the most important results at the state (decision-making, institutional), corporate (employer) and consumer (employee) levels to promote health-conscious consumer behaviour, with a special focus on social media usage to take advantage of the opportunities it offers.**

   In the logical model, I determined the dominant factors along three research levels – at the state (institutional) level according to health-related risk factors and the health system situation, at the company (employer) level determining the factors influencing employee loyalty, and finally at the consumer level along the lines of socio-demographic characteristics, consumer attitudes, and social media usage patterns. I summarized the research levels into a knowledge-based framework model, which can be qualified as a gap-filling model through the complex examination of the research area.

# 6. LIST OF PUBLICATIONS

**PUBLICATIONS IN FOREIG LANGUAGE**

**Scientific journal articles in English**

LOW, D., NATHAN, R.J., **GORGENYI-HEGYES, E.**, FEKETE-FARKAS, M. (2021): The demand for life insurance in a developing country and the mediating role of persuasion. *Journal of International Studies*, 14(3), p. 138-154. doi: 10.14254/2071-8330.2021/14-3/9 (Scopus Q2)

EBRAHIMI, P., HAMZA, K.A., ZAREA, H., **GORGENYI-HEGYES, E.,** FEKETE-FARKAS, M. (2021): Consumer Knowledge Sharing Behavior and Consumer Purchase Behavior: Evidence from E-Commerce and Online Retail in Hungary. *Sustainability,* 13, 10375. https://doi.org/10.3390/su131810375 (Scopus Q1)

**GORGENYI-HEGYES, E.;** NATHAN, R.J.; FEKETE-FARKAS, M. (2021): Workplace Health Promotion, Employee Wellbeing and Loyalty during Covid-19 Pandemic—Large Scale Empirical Evidence from Hungary. *Economies* 9, 55. https://doi.org/10.3390/economies9020055 (Scopus Q2)

OSHORA, B.; DESALEGN, G.; **GORGENYI-HEGYES, E.**; FEKETE-FARKAS, M.; ZEMAN, Z. (2021): Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. *J. Risk Financial Manag*. 14, 286. https://doi.org/10.3390/jrfm14070286 (WoS)

GONDA, G.; **GORGENYI-HEGYES, E.**; NATHAN, R.J.; FEKETE-FARKAS, M. (2020): Competitive Factors of Fashion Retail Sector with Special Focus on SMEs. *Economies,* 2020, 8, 95. https://doi.org/10.3390/economies8040095 (Scopus Q2)

MUBARAK AL-ALI, N.; **GORGENYI-HEGYES, E**., FEKETE-FARKAS, M. (2020): Perceived corporate sustainability practices and performance of Small And Medium Enterprises (SMEs) in Qatar, *Polish Journal of Management Studies,* 22 (1) p. 26-42. (Scopus Q3)

**GORGENYI-HEGYES, E**., FEKETE-FARKAS, M. (2020): Internal CSR as a strategic management tool in reduction of labour shortages, *Polish Journal of Management Studies*, 19(2) p. 167-181. (Scopus Q2)

NATHAN, R.J.; YI, C.X.; **HEGYESNÉ GÖRGÉNYI, É.**; VICTOR, V.; GONDA, GY.; FEKETE FARKAS, M. (2019). Impact of knowledge and innovation management to firm financial and non-financial performance, *VADYBA: JOURNAL OF MANAGEMENT* 2(35) p. 71-81.

**GÖRGÉNYI-HEGYES, É.**, CSAPÓ, I., FEKETE-FARKAS, M. (2017): Some aspects of digitalization and sustainability in the European Union, *VADYBA: JOURNAL OF MANAGEMENT*, 2(31) p. 37-46.

**GÖRGÉNYI HEGYES, É.**, MÁTÉ, B., VAFAEI, S.A., FEKETE FARKAS, M. (2017): The role of social media in gastronomy industry. *Apstract: Applied Studies In Agribusiness And Commerce,* 12(3-4) p. 95-104. (IV. Agricultural Sciences: A)

GÓDOR, A.K., **HEGYESNÉ GÖRGÉNYI, É.** (2017): Appearance of the health – conscious consumer behavior in the V4 countries, *Columella: Journal of Agricultural and Environmental Sciences,* 4(1 Suppl.) p. 241-246.

**GÖRGÉNYI-HEGYES, É.**, FEKETE-FARKAS, M. (2016). Health awareness knowledge management through social media applications. *VADYBA: JOURNAL OF MANAGEMENT,* 29(2) p. 9-18.

**HEGYESNÉ GÖRGÉNYI, É.** (2016): Innovations for Health Institutions in Life Quality Development. *Contemporary Research on Organization Management and Administration* 4:(2) p. 15-29.

**Conference publication in English**

MUCHA L., **HEGYESNÉ GÖRGÉNYI, É.** (2020): The market for organic food continues to expand in France, In: Lisányi Beke, Judit; Erdélyi, Éva (szerk.) *Selected Papers of the 2nd International Conference on Sustainability at Budapest Business School,* Budapest Business School, Budapest, p. 160-166.

**GÖRGÉNYI HEGYES, É.**; FEKETE FARKAS, M. (2018). Health Awareness and Workplace Health Promotion Regarding to Corporate Social Responsibility In: Frankovský, M; Dobrovič, J; Fedorko, R (szerk.): Management 2018: Management and the world in motion, challenges, opportunities and threats, p. 888, Presov, Szlovákia: University of Prešov, p. 60-66. (WoS)

**GÖRGÉNYI HEGYES, É.;** GÓDOR, A.; FEKETE FARKAS, M. (2018): Health-conscious Behaviour Appearance in the European Union, In: Michaela, Staníčková; Lukáš, Melecký; Eva, Kovářová; Kateřina, Dvoroková (szerk.): *ICEI 2018 Proceedings of the 4th International Conference on European Integration 2018*, Ostrava, Csehország: VSB-Technical University of Ostrava, p. 439-446. (WoS )

FEKETE FARKAS, M.; **GÖRGÉNYI HEGYES, É.** (2018): Importance and Challenges of Sustainable Consumption, In: Harun, Uçak (szerk.): Proceedings Book: *2nd INTERNATIONAL CONFERENCE ON FOOD and AGRICULTURAL*

*ECONOMICS* Alanya, Törökország: Alaaddin Keykubat Üniversitesi, p. 199-208.

**GÖRGÉNYI HEGYES, É.,** FEKETE FARKAS, M. (2017): Strategic use of social media in health communication. In: Radek Nemec, Lucie Chytilová (szerk.): *SMSIS 2017 - Proceedings of the 12th International Conference on Strategic Management and its Support by Information Systems.* 496 p., Ostrava: VSBTechnical University of Ostrava, 2017. p. 389-397. (Scopus)

VAFAEI, S.A., **GÖRGÉNYI-HEGYES, É.,** FEKETE-FARKAS, M. (2016): The Role of Social Media and Marketing in Building Sustainability Orientation. In: Stefko R.,Frankovsky M., Fedorko R (Szerk.), *Management 2016: International business and management, domestic particularities and emerging markets in the light of research.* 643 p., Presov: University of Prešov, 2016. p. 433-439. (WoS )

**PUBLICATIONS IN HUNGARIAN**

**Scientific journal article in Hungarian**

BATA, V.É.; FARKASNÉ FEKETE, M.; **HEGYESNÉ GÖRGÉNYI, É.** (2021): Fenntartható fejlődés vállalati szinten: vállalati társadalmi felelősségvállalás a vendéglátásban, különös tekintettel a fogyatékkal élők foglalkoztatására, *Új Munkaügyi Szemle,* 3, p. 69-80.

**HEGYESNÉ GÖRGÉNYI, É.**; NATHAN, R.J.; YI C.X.; VICTOR, V.; GONDA GY.; FARKASNÉ FEKETE, M. (2021): A tudás- és innovációmenedzsment hatása a szervezeti teljesítményre, *Polgári Szemle*, 17(1-3) p. 152-166.

**Book chapter in Hungarian**

GONDA, GY.; **HEGYESNÉ GÖRGÉNYI, É.**; FARKASNÉ FEKETE, M. (2020): Digitalizációs eszközök és okos kereskedelem a ruházati szektorban, In: Lencsés, Enikő; Pataki, László (szerk.) *Menedzsment válaszok a XXI. század gazdasági és társadalmi kihívásaira,* 283 p. Inform Kiadó, Budapest, p. 37-49.

**HEGYESNÉ GÖRGÉNYI, É.;** NATHAN, R.J.; YI C.X.; VICTOR, V.; GONDA GY.; FARKASNÉ FEKETE, M. (2020): A tudás-és innóvációmenedzsment kapcsolata a vállalati teljesítménnyel, In: Szabó, Katalin; Kollár, Péter (szerk.) *Poór'70 : Egy emberöltő a menedzsmenttudomány szolgálatában - Tanulmányok Poór József 70. születésnapja tiszteletére,* 295 p., Szent István Egyetemi Kiadó, Gödöllő, p. 67-84.

## Conference publication in Hungarian

**HEGYESNÉ GÖRGÉNYI, É.** (2020): A munkahelyi egészségfejlesztés szerepe a vállalat belső CSR tevékenységében; In: Horváth, Bálint; Kápolnai, Zsombor; Földi, Péter (szerk.) *Közgazdász Doktoranduszok és Kutatók V. Nemzetközi Téli Konferenciája: Konferenciakötet;* Gödöllő, Magyarország: Doktoranduszok Országos Szövetsége, (2019) p. 272-281.

BUDA, G.; **HEGYESNÉ GÖRGÉNYI, É.** (2018): Interneten alapuló üzleti modellek terjedése, különös tekintettel az együttműködő közösségi gazdálkodásra In: Földi, Péter; Borbély, András; Kápolnai, Zsombor; Zsarnóczky, Martin Balázs; Bálint, Csaba; Fodor-Borsos, Eszter; Gerencsér, Ilona; Gódor, Amelita Kata; Gubacsi, Franciska; Nyírő, András; Szeberényi, András (szerk.): *Közgazdász Doktoranduszok és Kutatók IV. Téli Konferenciája: Konferenciakötet*, Budapest, Magyarország: Doktoranduszok Országos Szövetsége, (2018) p. 443-451.

**HEGYESNÉ GÖRGÉNYI, É.**; FARKASNÉ FEKETE, M. (2018): Digitalizáció a fenntarthatóságért, In: Dinya, László; Baranyi Aranka (szerk.): *XVI. Nemzetközi Tudományos Napok = 16th International Scientific Days,* Gyöngyös, Magyarország: Líceum Kiadó, (2018) pp. 825-834.

**HEGYESNÉ GÖRGÉNYI, É.,** FARKASNÉ FEKETE, M. (2016): Az egészségtudatosság - mint társadalmi fenntarthatósági tényező - menedzselése a közösségi média eszközein keresztül. In: Kulcsár L., Resperger R. (szerk.) *Európa: Gazdaság és Kultúra = Europe: Economy and Culture: Nemzetközi Tudományos Konferencia Sopron*, 2016. november 10. = International Scientific Conference: Tanulmánykötet. 1070 p. Sopron: Nyugat-magyarországi Egyetem Kiadó, p. 599-613.

# REFERENCES

1. DUNAY, A., AYALEW, A., ABDISSA, G. (2021): Why Socially Responsible? Determinant Factors of Organizational Performance: Case of Dangote Cement Factory in Ethiopia, *Sustainability*, 13(9), 4783, https://doi.org/10.3390/su13094783
2. FORNELL, C., AD LARCKER, D.F. (1981): Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1) p. 39-50.
3. GROSSMEIER, J., FABIUS, R., FLYNN, J.P. et al. (2016): Linking Workplace Health Promotion Best Practices and Organizational Financial Performance: Tracking Market Performance of Companies With Highest Scores on the HERO Scorecard, *Journal of Occupational and Environmental Medicine*, 58(1) p.16-23.
4. HAIR, J., HULT, T.M., RINGLE, C., SARSTEDT, M. (2016): A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), USA, Kennesaw State University.
5. HAIR, J.F., JR., HULT, G.T.M., RINGLE, C., SARSTEDT, M. (2017): A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Sage publications: Los Angeles, CA, USA
6. HENSELER, J., RINGLE, C.M., SARSTEDT, M. (2015): A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science,* 43(1) p. 115-35.
7. KSH (2020) KSH adatbázis adatai, http://www.ksh.hu/stadat
8. LI, B., FAN, X., ÁLVAREZ-OTERO, S., SIAL, M. S., COMITE, U., CHERIAN, J., VASA, L. (2021): CSR and Workplace Autonomy as Enablers of Workplace Innovation in SMEs through Employees: Extending the Boundary Conditions of Self-Determination Theory, *Sustainability,* 13(11)
9. RESEARCH CENTER (2021): Magyar közösségi média körkép, https://www.researchcenter.hu/cikkek/magyar-kozossegi-media-korkep/ Letöltés ideje: 2021.06.30.
10. HOMBURG, C., STOCK, R. (2000): Der kunderorientierte Mitarbeiter, Gabler, Wiesbaden
11. HOMBURG, C., STOCK, R. (2004): The Link between Salespeople's Job Satisfaction and Customer Satisfaction in a Business-to-Business Context: A Dyadic Analysis. *Journal of the Academy of Marketing Science,* 32, p. 144-158.
12. OECD (2019): Magyarország: Egészségügyi országprofil 2019, State of Health in the EU, Paris, OECD Publishing / Brussels, European Observatory on Health Systems and Policies
13. SANDERS, K., MOORKAMP, M., TORKA, N., GROENEVELD, S., GROENEVELD, C. (2010): How to Support Innovative Behaviour? The

Role of LMX and Satisfaction with HR Practices, *Technology and Investment*, 1, p. 59-68