

New perspectives in serving customers, patients, and organizations:
A Festschrift for Judit Simon

Ildikó Kemény – Zsuzsanna Kun (eds.)

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Edited by:
Ildikó KEMÉNY
Zsuzsanna KUN

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Preface I.

Most of us reading this book know Professor Judit Simon personally. Those who have not met her yet hopefully will be as lucky as we are and may have the chance to get to know her.

Judit Simon graduated in 1974 from the former Karl Marx University of Economics. She has been working as a docent at our university since 1989. She was the director of the Institute of Marketing and Media (currently Institute of Marketing) between 2008 and 2016.

One of the most important pillars of her educational activity was launching and continuously developing the course of 'Marketing research and market analysis' (former 'Quantitative technics of marketing research') and promoting the use of SPSS. Professor Simon is also the co-author of Naresh K. Malhotra's marketing research book. Not only the Hungarian translations but also Hungarian case studies and status reports were added by her to the domestic edition.

Internationalization plays an important role in Judit Simon's career. The common DSG program of the University of Passau and Corvinus University of Budapest is also linked to Professor Simon's name. Between 1997 and 2016, she was the director of the 'Center for the German Language Business Administration Training' at the CUB. She was inaugurated as an honorary doctor in November 2014 by the University of Passau owing to her outstanding efforts.

Her achievement in academic resupply and talent management is also prominent. Between 2010 and 2018, she was the member and later core member of the Doctoral School of Business and Management furthermore today she is still the leader of the Marketing specialization. She bears in her heart to promote quantitative research methods for Ph.D. students and for this purpose, she also invites noted foreign professors and organizes research workshops. She is also an active Ph.D. supervisor since already four academics have reached the degree with her guidance and she has four Ph.D. students currently.

She has won numerous scholarships as well: she has spent three months in Harvard Business School, she visited German-speaking universities several times, moreover since 1991 she is a regular guest at the University of Passau.

Professor Simon's research activity is far-reaching. Three international research projects and three OTKA tenders were led by her and she still participates in the implementation of research projects. Her research themes are from B2B marketing, health care marketing, consumer research but she also supports several scientific projects as a methodological expert.

This Festschrift has two main chapters. The *first chapter* contains *scientific papers* that are connected to Professor Simon's academic career. The first paper listed here is about her two main passions: classical music and academy. Then three essays follow in connection with her three main research interests such as B2B marketing, omnichannel shopping behaviour, and health care marketing. The thematical papers are followed by methodological ones whether they are about teaching methods or research methods. The chapter closing papers are such scientific works that are related to her works as a supervisor either as a methodological consultant or a thematical tutor. The *second chapter collects laudations* from colleagues both from the Hungarian and from the international marketing community.

Judit Simon is a remarkable member of the Marketing Institute whose academic career is outstanding and diversified in research, promoting research methodology, internationalization, teaching, and management duties.

For us, editors the roots linked to Judit are common. Ildi has finished her Ph.D. and Zsuzsi is still working on her Ph.D. under her guidance. Her professional and personal support was highly needed for us to get to the point where we are standing right now. Ildi is rather working on quantitative marketing research methods and consumer research with her and Zsuzsi is interested in health care marketing and patient-oriented approach, but we have more and more common projects as well.

This Festschrift is a cross-section of Professor Judit Simon's research and teaching activities with the contribution of her professional network.

Our last duty in this preface to say thank you from the bottom of our heart to our Judit for all of her help and wish her a very happy 70. birthday!

The editors,
Ildi (Ildikó Kemény) and Zsuzsi (Zsuzsanna Kun)
Corvinus University of Budapest
Institute of Marketing

Preface II.

I believe that the success of an organisation depends on people. All the other parts of the system are just administrative elements around the processes. However, people, the core value of an organisation, can contribute in many ways. If we talk about modern organisations, we can easily have a vision of professional, extremely efficient employees driven by their own individual carrier goals and incentives. In short term, it can work. But this type of cooperation is very sensitive to external conditions. If the environment changes, the structure can quickly fall apart and can be reintegrated somewhere else, with others.

As a university, long term orientation is a must and if you think long term, you need something more. You need people who are deeply committed, who are there when needed, who worry about the organisation, who provide more than a performance indicator index type measurement can cover, who do not listen to external opportunities that could be available, because they are 'at home'.

I am very honoured that I can write these words here. Professor Judit Simon was the first to invite me to connect to the Institute of Marketing as a student research assistant. She has always been thinking in long term as well, so after 24 years we are still here. She is and will be a member of a family she co-created and contributed to more extent we can ever 'pay back'. This book, which is organised and edited by her former doctoral students, is just a small kindness that reflects her attitude towards people around her.

Judit, we hope it will reminds you that we owe you.

Tamás Gyulavári
Head of Institute of Marketing

New perspectives in serving customers, patients, and organizations

Research papers

Conducting Control: Some thoughts on Orchestral Leadership and beyond

Robert OBERMAIER

Abstract

The function of control has to make sure that an organization (e.g. an orchestra, a company, or a university) goes, where its leaders want it to go. Nevertheless, this is hard to achieve. Examples of failing CEOs in companies and even failing presidents in universities are numerous. This article aims at researching orchestral conductors, their specific style of leadership and their „art of conducting control“. Seven principles for conducting control are developed and discussed in detail in order to improve leadership and conducting control especially for organizations with highly skilled people involved.

1. Introduction

Judit Simon shares two great passions: academia and music. While she had been playing the violin in an orchestra in her early days, she devoted much of her professional life to her professorship and over more than a quarter century to the orchestration of a DAAD-funded German Study and Exchange Program in Business Administration (DSG) between *Corvinus University Budapest* and *University of Passau*.

While on the first sight both spheres, music and academia, seem not to have very much in common — academia as sphere of rationality and knowledge creation on the one side and music as sphere of art and expression on the other side — on a second sight it becomes obvious that music and academia consist of highly skilled and motivated people, who can act by themselves to a certain degree but also have to find ways to work closely together, sometimes more or less under the baton of a leading figure, which seeks to conduct control in order to achieve common goals.

In *Orchestra Rehearsal* (orig.: *Prova d'orchestra*), a 1978 Italian-German satirical film directed by *Federico Fellini*, the members of an Italian orchestra go on strike against their conductor. Before rehearsal starts different musicians speak about their craft, routinely interrupting one another as their artistic claims are contested

by orchestral peers, each self-importantly regarding his own instrument as the most vital to group performance. After the conductor arrives (speaking Italian but with an affected German accent), he is proving theatrically critical of the ensuing performance quality. Protesting the conductor's authoritarian abuses, the union reps intervene, spitefully announcing that all musicians will be taking a 20-minute double break. The defeated conductor expresses his frustrations regarding the impossible contradictions of his leadership role. In an increasingly anarchistic manner the musicians chant a discordant chorus of protest against their oppressive taskmaster and then against music itself („The music in power, not the power of music!") until finally an impossibly large wrecking ball — like a *deus ex machina* — smashes through a wall of the building, causing the death of the harpist. After the settling of the dust, the conductor steps in to eulogize with a motivational speech declaring that music requires them to play through the pain of life, to find strength, identity and guidance in the fated notes of its composition. At its end, however, the conductor's former words of fleeting praise once again sour to perfectionist dissatisfaction and as the picture finally becomes black the conductor's continued Italian dialogue berating the orchestra is heard to slip into dictatorial German barking, suggesting a sharper political allegory at play in the movie's message all along.

As the example of a collapsing orchestral rehearsal makes clear, collapsing leadership can be found anywhere: failing presidents in universities, failing CEOs in companies, which is always tragic and a waste of time and effort for so many people involved and for the whole organization. So the question raised here is, what we can learn from conducting control and leadership especially for organizations with highly skilled people involved.

This article therefore intends to shed light on the function of control; i.e. conducting leadership to make sure that an organization (e.g. an orchestra, a university or a company) goes, where it is intended to go, from a somewhat unusual not to say strange angle: the viewpoint of orchestral conductors. Nevertheless, the gap between potential organizational forms is huge, we will mainly ignore it, as we are confident that some interesting bridges between them will emerge the reader can pass.

2. The Concept of Conducting

Conducting is – by definition – the function of directing a musical performance, such as an orchestral or choral concert by „directing the simultaneous performance of several players or singers by the use of gesture." (Grove & Maitland 1922, p. 581). So at a very basic level the function of conducting seems to be very simple. It is to keep an orchestra or a choir in time and together. But couldn't

that be achieved by a metronome as well? And according to *Arturo Toscanini* (1867–1857), the famous Italian conductor, „any *asino* can conduct, but to make music is *difficile*” (Gilmour 2011).

Digging in a bit deeper it becomes clear that a conductor’s responsibility is to understand the music and convey it through gesture so transparently that the musicians in the orchestra understand it perfectly and the musicians can then transmit a unified vision of the music out to the audience. So the primary duties of the conductor are in advance to make a plan, i.e. interpret the score in a way which reflects the specific indications in that score, set the tempo, develop some idea of sound and so on. During rehearsal the conductor has to inform the musicians about his plan and to rehearse its execution, i.e. ensure correct entries by ensemble members, and „shape” the phrasing, dynamics, tempi and sound where appropriate (Kennedy & Kennedy 2007).

Conductors communicate with their musicians primarily through hand gestures, usually with the aid of a baton, and may use other gestures or signals such as eye contact and usually supplement their direction with verbal instructions to their musicians in rehearsal (Holden 2003). As mentioned above, there is some discussion whether and if so, under which circumstances conducting would be necessary. Chamber orchestras for example in general refuse to be conducted as they are able to coordinate themselves via visual contact and listening. The larger the orchestra and the more differentiated the instruments involved, the greater seems the necessity to be conducted, as coordination efforts increase, visual contacts of many people and listening on each other becomes difficult. That’s where a conductor comes in.

3. The Concept of Leadership

From a psychological as well as from a sociological perspective conducting leadership requires certain assumptions: first is that human beings need leadership and second is that they want leadership. Both assumptions are crucial for the acceptance and functionality of leadership. While the first assumption implicitly excludes people who do not want to be lead somewhere apart from their own goals and values, because they express their willingness for self-determination, the second assumption focuses on common problem solving which in general requires coordination of interrelated individual actions. This coordination can be achieved by discussion and consensus within a group or by leadership.

Leadership literature offers a broad spectrum of leadership styles which range from rather strict autocratic to more democratic or *laissez-faire* forms (Lewin et al. 1939):

The *autocratic leadership* style particularly relies on the distinction between authoritarian leaders and their followers by establishing a command and control structure. Although autocratic leadership is associated with a lot of negative consequences such as bullying, climate of fear, no room for dialogue or discussion, during certain times it had gained surprising acceptance. The already mentioned *Arturo Toscanini* usually serves as a role model for autocratic, dictatorial leadership in conducting. Musicians highly respected him but also feared him.

A *paternalistic leader* acts as a parental figure by taking care of their subordinates as a parent would. In its most positive sense, the leader offers total concern for his followers and therefore receives trust and loyalty from them. Nevertheless, increasing individualism in societies seems to be in conflict with paternalistic structures due to differences with certain cultural aspects; e.g. power distance, direct communication, intergroup interdependence, or egalitarianism (Hofstede 1980). *Herbert von Karajan* (1908-1989) fulfilled a paternalistic leadership role: he was the indisputable chief conductor of the *Berlin Philharmonic Orchestra* (1955-1989), but he also felt responsible for everything up to personal matters of his musicians.

A *democratic leadership* style consists of the leader sharing the decision-making authority with group members by including the interests and abilities of the group members. Highly skilled group members usually tend to contribute more in democratic environments, and more creative results can be expected. Nevertheless, democratic participation requires plenty of time and effort and is furthermore bound to certain cultural aspects; e.g. open discussion, social equality, participation and individualism. *Claudio Abbado* (1933–2014), who succeeded *Karajan* as chief conductor of the *Berlin Philharmonic Orchestra* (1989–2002), was in stark contrast to his predecessor championing the idea of the orchestra as a communal entity offering room for discussion and explanation.

Laissez-faire leadership can also be described as the avoidance or (temporal) absence of leadership, which reaches the opposite end of the leadership continuum. This style is expected to be effective when the group consists of highly skilled, experienced and trustworthy individuals organizing themselves with group discussion and consensus. The *Orpheus Chamber Orchestra*, a 1972 founded New York based orchestra, works generally without a conductor. Their working process is based on team consensus and alternating group leaders for each musical performance. Maybe somewhat surprisingly and only to a certain extent *Herbert von Karajan* also fits to that *laissez-faire* category, although or just because he had such a clear vision of the result he wanted to achieve. As rehearsals were so eminent important for him, where absolutely no *laissez-faire* occurred, during performance he let it happen, gave total freedom and confidence to his orchestra. *Karajan* compared it that way: „When Zen masters of archery practice their art, they don't say

„I am shooting” but „It is shooting”. Their actions have become so natural that there is actually no need to do anything to it. ... Doing consists in not doing. Of course everything has to be done in advance, but then you let it go and let it fulfill itself naturally. It takes a very long time until one has reached this point.”¹

Finally, a *servant leadership* style particularly relies on the inversion of leaders and their followers („flipping the hierarchy”) by the leader’s desire to serve the people, to help them to develop in order to achieve a higher purpose which is above the individual goals of both leaders and followers (Greenleaf 1970). Obviously it is required for a servant leader to develop a higher purpose vision, to become a role model and to align, care and develop the group members’ talents. According to *Colin Davis* (1927-2013), former conductor of the *Bavarian Radio Symphony Orchestra* (1983-1992), conducting is as much a human problem as a musical one: „Conductors must never forget that they are relying on all these wonderful musicians to play the music for them. (...) If anybody gets in the way, it wrecks the whole show. You’ve got to have somebody to concentrate the forces, and give players confidence to release their own energy and musicality. If a conductor can put his ego aside, then you’ve really got something.” (Schultz 2010). *Carlos Kleiber* (1930-2004), according to a BBC (2011) poll crowned the greatest conductor of all time by a selection of 100 of today’s finest maestros, serves as role model for servant leadership. He had become famous for his ability to foster and promote the musicians to discover each piece as if he had a direct connection to the composers’ will and to achieve the absolutely best performance with them. *Carlos Kleiber* understanding of conductors was that of poor beggars, asking musicians for performance. His rehearsals were so exhaustively that during performance he could improvise with the orchestra, but with precise effect and he was able to obtain the highest performance ever. His musical performances seem as if they were being composed as they were played. *Klaus König*, a former oboist of the *Bavarian State Orchestra* memorized *Carlos Kleiber*’s rehearsals and performances as revelation: „For my sake, one might make it differently, but in no case better. – Thus, I think, you cannot make it differently. [laughs]”²

4. The Concept of Control

The concept of control originates from systems theory, which is based on the basic idea that systems control themselves by information feedback in order to initiate actions if deviations from certain goals occur. Accordingly, a basic control process requires: (1) setting goals and plans to achieve these goals, (2) measuring performance against these standards, (3) correcting deviations from goals and plans (Koontz & O’Donnell 1972, p. 583). Hence, planning is about setting goals and standards and articulating programs to achieve these goals, while control seeks to execute and realize plans. Planning without control is useless, while control

without planning is impossible. Merchant (1982) puts it that way: „After strategies are set and plans are made, management’s primary task is to take steps to ensure that these plans are carried out, or, if conditions warrant, that the plans are modified. This is the critical control function of management. And since management involves directing the activities of others, a major part of the control function is making sure other people do what should be done.” (p. 43).

Cybernetics, as special form of systems theory, had been established as a research program to answer the question, whether the concept of control, which might work pretty well in mechanics and in informatics; also does work in social systems. As pointed out by *Norbert Wiener* (1948), communication, or information transfer, and control occur in many systems, by information feedback which discloses error in accomplishing goals and initiates corrective action. Nevertheless, cybernetic control is based on the assumptions that there are goals or standards set, that actual accomplishment of goals or standards can be measured, and that information on deviations can be used to intervene, i.e. to define and initiate actions to eliminate unwanted differences between measurement and goals. Accordingly, for the control function of management *Simon et al.* (1954) established the following controlling tasks which they found applied in practice: scorecard keeping, i.e. measuring the current status of system with adequate controls, attention directing, i.e. comparing actual status against established standards and highlighting relevant deviations, and problem solving, i.e. offering measures in order to correct the deviations. *Herbert von Karajan* described himself as such a control system during rehearsal: „I am ear, and I hear the possible reasons, why a mistake might arise. And then that will be corrected.”³

In a world where people always do what is best for an organization and no uncertainty exists, control — maybe even planning — would not be needed. Yet, such a situation never did and never will exist — at least on earth. This might be slightly different in the conductors’ heaven, from where *Arturo Toscanini* once sent a „telex” to *Sergiu Celibidache*, which had been transferred by *Carlos Kleiber*, that „up here the angels anticipate the composers every wish, we conductors just have to listen. Lord knows why I came up here.” (Kleiber 1989).

Therefore, controls come into place when deviations from a given standard occur and are expected to be corrected. Typical problems against which controls should guard are *personal limitations*: „People do not always understand what is expected of them nor how they can best perform their jobs, as they may lack some requisite ability, training, or information.” (Merchant 1982, p. 43). But even if employees are properly skilled and equipped to perform a job well, some choose not to do so, because individual goals and organizational goals may not coincide perfectly; i.e. a *lack of goal congruence* exists.

If nothing is done against the occurrence of undesirable behavior or the omission of desirable behavior, the expected outcome is to a high degree subject to accident. A high probability of forthcoming poor performance, despite a reasonable operating plan, usually is given the label „out of control”; a pure nightmare for conductors such as *Herbert von Karajan* whose ideal is preparation and precision in order to obtain control.

It might be expected that therefore a maximum of control is the best solution. But *total control*, meaning complete assurance that actual accomplishment will proceed according to plan, is never possible and can have detrimental side-effects; especially when (1) the above-mentioned assumptions of cybernetic control are not fulfilled or because of the (2) likely occurrence of unforeseen events; i.e. the existence of uncertainty. Furthermore, total control if it were feasible, then only to extremely high costs; including negative repercussions on individual performance.

Problems with the *assumptions* and hence with cybernetic control arise when (a) goals or standards are missing, unclear or shifting, (b) performance or results are not measurable, (c) feedback information is not usable (e.g. in one-time projects), or (d) there is lack of knowledge which actions are to be taken to correct for deviations. Although these weaknesses exist in practice, the use of control cybernetic control enjoys great popularity and has had a fair amount of success in practice; even as approximation of control or at least the imagination of control, which may help leaders to achieve some sort of confidence and reliance into the controllability of a system and their own leadership. But on the other hand trying to apply total control on systems consisting of people may consider them as means to be used, although it is known, that people have goals themselves. Applying control systems on people therefore requires goal congruence, e.g. via some form of consensus, persuasion, or incentives; otherwise goals would have to be imposed.

If events were perfectly determined, i.e. no *uncertainty* existed, control would be obviously superfluous. Therefore, control becomes useful when events occur stochastic but foreseeable; i.e. when there is causal root which can help to correct for deviations or to forecast them in order to take action in advance. While the former is the usual case of *feedback* control, the latter requires *feed forward* information, based on prediction capabilities (Obermaier & Grottko 2017). But when events become severely unpredictable, cybernetic control loses its correction ability and can get „out of control”.

From a theoretical point of view, one option to bypass some control problems could be digitization and automation; under the assumption that computers can be programmed to perform appropriate, and as long as the program is programmed without bugs and the computer does not crash (we know this isn't the case either!). But

it seems obvious that there are certain tasks which human beings will perform with slightly more deviations, be it due to will, be it due to skill. In music as in arts in general this can even open up plenty of space for development, interpretation, and expression. In business practice digitization and automation is massively on the rise; beginning on highly repetitive tasks but nowadays, with respect to artificial intelligence, also on more difficult tasks. While the former actually reduces the control problem, the latter not necessarily does so, as artificial intelligence (with the human brain in „mind“) also may lead to unforeseen results which might require some sort of control.

5. Seven Principles for Conducting Control

When avoidance of control problems is not possible, it has to be tackled. In general this is possible via different types of control, depending on the characteristics of the control problem. Assuming that goals are set and feedback information is usable, there remain two critical assumptions: the ability to measure results and knowledge of which specific actions are to be taken to correct for deviations. If both determinants are fulfilled, cybernetic control can be run properly; either by specific action or results control. An orchestral rehearsal offers such situations for conductors, as *Karajan* mentioned „I am ear, and I hear the possible reasons, why a mistake might arise. And then that will be corrected.”⁴ But in a concert performance he refused from control and totally relied on the orchestra.

Both extremes, no control and total control, may lead to chaos and leaders will therefore have to choose control options in between; i.e. to find a dynamic balance and therefore have to instrumentally aware an sensitive when using controls; which here is the meaning of „conducting control”. In order to *conduct control* at least the following seven *principles* have to be considered:

First, more control is not always economically desirable. Like any other economic good, control tools are costly and should be implemented only if the expected benefits exceed the costs. That means conducting control should be efficient. The great composer *Richard Strauss* (1864-1949), who was also an experienced conductor, gave this advice in his „Ten Golden Rules” for conductors: „While conducting you should not sweat, only the audience should become warm.” This goes hand in hand with the *avoidance of „over-conducting”*, which can have detrimental effects. *Strauss* recommends further: „Never look invitingly at the brass section” (Strauss 1925).

Second, control must be *future-oriented*: the goal is to have no unpleasant surprises in the future. The past is not relevant except as a guide to the future. Conducting control must therefore be ahead of time. A conductor conducting on the beat is needless; a conductor conducting behind time is needless and confusing.

Third, correction of deviations and therefore feedback information is useless, when a process only takes place once. Once an error occurred during an orchestral performance it cannot be corrected any more. Therefore the role of precision and preparation during rehearsal plays a key role, where feedback allows for endless corrections; although such an extreme could be the hell for musicians. Nevertheless, in *Arturo Toscaninis'* fictive „telex” from heaven, transferred by *Carlos Kleiber*, *Sergiu Celibidache* receives the sarcastic note, that, there where he will be expected sometime, not only cooking is better, but also orchestras rehearse much longer: „They even make deliberately tiny mistakes, so that you could correct them eternally.” (Kleiber 1989).

Herbert von Karajan explained his view on all three principles above crystal clear: „Look, the influence with visual gestures ... misleads dreadful easily to co-conduct every nuance of a masterpiece, which is totally senseless. When the illustration of details in the piece would take place then they are already over. It cannot be in advance, it can only be right in time. The same with corrections: I know many conductors who unswervingly indicate the orchestra to play louder or softer. But that means that they had been too loud, when the passage is over. Then the correction comes too late. That's useless. ... That has to be done before. Like in all such cases, rehearsal is the most important task.”⁵ Asked whether he would correct a deviation from plan during a concert performance, Karajan makes clear that he would not as the occurrence of such a thing was for him unthinkable: „The plan must be established. The process must be absolutely clear.”⁶ *Carlos Kleiber* simply wrote: „Symphonic music means mainly rehearsal.” (Kleiber 1999).

Fourth, *control is multidimensional*, and conducted control cannot be established over an activity with multiple objectives unless performance on all significant dimensions has been considered. Thus, for example, control of an orchestral performance cannot be considered good unless all major performance dimensions, including tempo, dynamics, balance, sound, rhythm, and expression are well controlled. Any „single-issue policy” causes severe issues elsewhere, never coming to an end, but ending up in collapse. *Carlos Kleiber* once explained that issue with „technique in a broader sense”: „With a good technique you can forget technique. It's like with manners. If you know how to behave, you can misbehave. That's fun!”

Fifth, when no specific action control can be undertaken and the control of results may come too late, that's where *reliance on the personnel* comes into place and a „command and control” style will be totally helpless. When both the ability to feedback results and control specific actions is limited, as it is in an orchestral performance, then the most delicate control problem arises. In that case reliance on the personnel involved is the key element of control. Here the usual assumption when executing control is that due to goal incongruence the right incentives

have to be set, to achieve good performance. But this tends to underestimate other measures; e.g. the motivation of highly skilled people to perform well, but also the option to increase the capabilities of people, improve communication and persuasion and install peer group performance control; e.g. in subgroups of an orchestra. Of course many of these alternative measures require preparation in advance and a reliance on people. But once control becomes hard to achieve in „people businesses” trust seems unavoidable. *Karajan* made it clear that way: „Conducting is like riding a horse: you do not have to carry the horse over the fence! The horse has to carry you over the fence!”⁷ Which means, first you need good preparation, skill and rehearsal, but then you have to rely on the people involved.

Sixth, once people have to act together in order to achieve certain results, the systems’ elements or their activities are not only coupled via technical links but also via social ties. From a technical perspective a system has tight coupling when its components interact precisely, without slack or elasticity. *Loose coupling* in contrast means that some form of slack exists, where linked elements or activities are at least partially independent of one another (Weick 1976). Tight coupling means less autonomy and strictly coordinated action; loose coupling is associated with some degree of freedom, but without jeopardizing the functioning of the system. While tight coupling is expected to achieve precise results due to strict control, such systems may break down yet, once a single person or system components are decoupled. Loosely coupled systems are able to maintain their function also in case elements or activities begin to diverge in detail, if the elements do respond to another. This elasticity of *responsive elements* coincides with decentralization of control. Depending on the degree of autonomy loose coupling offers options to shift control from a more central authority to the systems responsive elements and back if needed. During rehearsal of the „Fledermaus” overture, instead of starting a part with upbeat, *Carlos Kleiber* refused tight control: „Guess! You have to guess! Like a radio, without a connection cable. Guessing! Because you are an orchestra and not a motley crowd of people dependent of the conductor. But you have the ability to guess right.”⁸ And during a rehearsal of „Freischütz” overture, in order to achieve a crescendo out of nothing at the beginning and instead of simply conducting an upbeat, *Carlos Kleiber* requests his orchestra: „Let the others always begin! Always let your colleague to start... perhaps he will guess right.”⁹ This paradox phrase, which – in a tight setting – never will anybody bring to start, performs differently in a loosely coupled system. Here the musicians do not react to the conductors’ baton but start to respond to one another. Further on, *Carlos Kleiber* explicitly demands this capability of responsiveness: „Your accompaniment is silent, I admit. But one does not hear that you listen to him. ... I always can hear if someone is listening to someone else. It has a special awaiting touching sound, if people listen to another.”¹⁰ A very fine example of responsiveness between orchestra and conductor is about the great conductor *Wilhelm Furtwängler* (1886-1954),

since 1922 (with some compulsory break during the postwar period) until his death principle conductor of the *Berlin Philharmonic Orchestra*, a musician who apparently radiated natural authority. During a rehearsal with the Berlin Philharmonic another conductor was on the podium when *Furtwängler* very quietly arrived in the hall. „Some musicians saw him and immediately the orchestra started to play better. But he was not conducting.” (Schultz 2010).

Seventh, if people are highly skilled and reliable, i.e. willing to collaborate, and when the object of control is personnel some degree of *freedom and ambiguity* of specific actions to be taken can have positive side-effects. This coincides with loose coupling, where some degree of autonomy is given to subgroups of an entire system, but requires responsiveness of the subgroups and peer group control within these subgroups. *Wilhelm Furtwängler* had a somewhat strange conducting technique. With quivering slowly sinking hands no one in the orchestra knew how to start. But when asked, *Joachim Kaiser*, a famous German music critic once reported, „the musicians told, they would start, when they can't stand it anymore.”¹¹ In another anecdote, the musicians asked *Furtwängler* during a rehearsal to conduct a certain passage very straight in order to rehearse it properly, which he did. Afterwards the musicians asked him, if he enjoyed the result. And *Furtwängler* answered: „Not at all. It was so nasty direct!”¹² *Carlos Kleiber*, a master in metaphoric communication, added some ambiguity and thereby freedom for the musicians to act into some technical remarks when needed. During a rehearsal of „Fledermaus” overture *Carlos Kleiber* introduced his surprising remarks with: „This, I cannot conduct.” While „flipping the hierarchy” *Carlos Kleiber* expected the orchestra to play a passage surreptitiously, i.e. not strict to the rhythm, but with different tempo. Somewhat ambiguously he added: „Everything is a balancing act; not honest to time. ... Let the other one play, if you are not to be in the mood, then just pretend you are. ... I am expressing myself very unclearly, right? But that is my intention here. [smile]”¹³ But on the other hand, when *Carlos Kleiber* expected extreme precision he made clear, to play „doggedly in every note”¹⁴, which shows his excellent ability to conduct control dynamically between the poles of tight and no control.

6. Conclusion

The function of control has to make sure that an organization (e.g. an orchestra, a university or a company) goes, where its leaders want it to go. The execution of control takes place between two extremes: total control and no control. Both extremes can lead to disastrous results therefore it is highly relevant for leaders to be instrumentally aware and sensitive in the usage of controls and to find a dynamic balance between these poles. The concept of cybernetic control plays a basic role

in conducting control. Nevertheless, it is bound to assumptions and therefore requires in real-life settings elasticity in the system controlled. Seven principles have been proposed to conduct control. With respect to orchestral conductors an interesting interplay emerges between leadership style and the attitude to control. Autocratic leadership and tight control are a disastrous mixture. Once governance is confused with governess, leadership may collapse, and leaders might become unhorsed. Excellent servant leaders, such as *Carlos Kleiber*, with highest quality standards rely especially on loosely coupled systems with a high degree of responsiveness, which is a key result which can be learned from orchestral conductors conducting control especially for organizations with highly skilled people involved. But also paternalistic leaders, such as *Herbert von Karajan*, with highest requirements in precision and preparation knew that conducting control means at the relying on the people involved, so that it „is like riding a horse: you do not have to carry the horse over the fence! The horse has to carry you over the fence!” Conducting control therefore aims at the ability to dynamically shift between different modes of control, in order to letting things happen, once people are perfectly prepared.

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Endnotes

- ¹ <https://www.youtube.com/watch?v=JfGL2GI7xzY> (start at min. 0:40.)
- ² <https://www.youtube.com/watch?v=Ta8Tqjn7Suo> (start at min. 57:50)
- ³ <https://www.youtube.com/watch?v=e0Iq1vnMt54> (start at min. 13:56)
- ⁴ <https://www.youtube.com/watch?v=e0Iq1vnMt54> (start at min. 13:56)
- ⁵ <https://www.youtube.com/watch?v=1WF5HtGwWds> (start at min. 38:41)
- ⁶ <https://www.youtube.com/watch?v=1WF5HtGwWds> (start at min. 40:34)
- ⁷ <https://www.youtube.com/watch?v=2zRxi-6bkzw> (start at min. 2:30)
- ⁸ <https://www.youtube.com/watch?v=NVk2Glu-7kM> (start at min. 25:54)
- ⁹ <https://www.youtube.com/watch?v=D5WyQnQJNc4> (start at min. 0:33)
- ¹⁰ <https://www.youtube.com/watch?v=cu7dZb6Btok> (start at min. 3:52)
- ¹¹ <https://www.youtube.com/watch?v=TTLm8EsC2KU> (start at min. 3:43)
- ¹² <https://www.youtube.com/watch?v=TTLm8EsC2KU> (start at min. 5:01)
- ¹³ <https://www.youtube.com/watch?v=NVk2Glu-7kM> (start at min. 23:59)
- ¹⁴ <https://www.youtube.com/watch?v=mId6C2Dqk0o> (start at min. 8:50)

More work

The qualitative and quantitative paradigm debate from the Industrial Marketing and Purchasing (IMP) approach

Judy ZOLKIEWSKI, Jim NARUS, Pete NAUDÉ, Enrico BARALDI,
Lars-Erik GADDE, Håkan HÅKANSSON, Alexandra WALUSZEWSKI,
Ivan SNEHOTA, Tibor MANDJÁK, Zsuzsanna SZALKAI, Erika HLÉDIK,
Mária MAGYAR, Edit NEUMANN-BÓDI

Industrial Marketing and Purchasing (IMP) Group

The IMP Group was formed in the mid-1970s as a research project on „Industrial Marketing and Purchasing”. Today the IMP Group represents a large informal network of researchers. The IMP Conference and the IMP Journal Seminar are important meeting places for researchers from all over the world, all sharing an interactive perspective on the business landscape.

The IMP perspective views firms as business actors embedded in business networks where they are interdependent on the resources and activities of other actors. One important consequence is that individual firms and managers are dependent on specific counterparts in their strategies, i.e., how they formulate and carry out strategic practices.

The IMP Group represents a dynamic approach to economic exchange, which means that emphasis is placed on the interaction processes taking place within and between business actors forming business relationships over time. Business relationships are perceived as not only entailing economic dealings but also social, informational and technological exchange processes that affect and change the interacting actors over time. Business relationships are also seen as interconnected, i.e., events or changes in one business relationship will affect other related business relationships, both direct and indirect.

The IMP Group represents a research tradition that places emphasis on empirical studies of how companies actually do business and of the various effects emerging when businesses and other organizations interact. Based on the assumption

of interdependent business actors, a hallmark of IMP studies is that marketing, purchasing, technological development, innovation, strategic management and logistics need to be investigated within the context of specific business relationships and networks (<https://www.impgroup.org>)

Judit Simon's first appearance at the IMP conferences happened in 1997 with a paper titled „*Tender Buyers... á la Hongroise: Some results of an empirical research*” written together with Tibor Mandják (Mandják and Simon, 1997). Since 2001, she has participated in almost every annual IMP conference. A significant milestone of her contribution to the IMP community was when in 2010, she was the head of organizers of the 26th IMP conference in Budapest. This event led the Hungarian IMP researchers to found the Hungarian IMP Research Center (hIMP).

The many years of research efforts of hIMP which is in the last years directed by professor Judit Simon, it placed Corvinus University and Budapest on the international map of IMP. Håkansson and Gadde (2018) overviewing the development of research based on the IMP approach during the four decades emphasize the development of hIMP.

IMP research is deeply empirically oriented. Recently we asked the reflections of prominent IMP researchers concerning a fundamental methodological issue. To celebrate Professor Judit Simon, we asked to answer the following question: „***How do you see the evolution of the qualitative and quantitative paradigm debate of recent decades?***” We are totally grateful to their contribution. In the following, in a slightly edited way we present their thoughtful answers.

Professor Judy ZOLKIEWSKI. *The University of Manchester, Manchester, United Kingdom*

The qualitative and quantitative debate remains as heated as ever and seems to have an ebb and flow effect, with a dominant flow that is driven by the quantitative paradigm. In the quantitative paradigm, researchers, sometimes, can be rather narrow minded in that they fail to understand that qualitative work requires different parameters when it comes to assessment of its quality and validity. Of course, not all quantitative researchers are this narrow-minded and some of them are gracious and generous in their understanding of the benefits of qualitative work. Likewise, there are also qualitative researchers who also are very single minded and only see one way of doing qualitative research. What is interesting about this debate is that it seems to have fuelled a drive towards new forms of qualitative and quantitative research, with quantitative work now requiring longitudinal data and triangulation with different methods. All this results in better data collection that leads to provision of better understanding of the field. Hybrid methodologies

such as the evolution of fsQDA (fuzzy set qualitative analysis) are also emerging. All this means that modern day researchers need to be open-minded and open to using methods that fit their research objectives and questions rather than being wedded to a single form method/analysis such as structural equation modelling.

Professor Jim NARUS, *Wake Forest University, Charlotte, North Carolina, USA*

In the US, there is no debate over qualitative and quantitative research. The view is that there are many qualitative and quantitative research tools. Use the ones that allow you to meet your research goals. Where the qualitative versus quantitative analysis issue comes up is in regards to academic journals. Some journals want quantitative research, some want qualitative research and case studies, some want management practice insights. Most major universities in the US use the Financial Times of London ranking of the top academic journals for tenure and promotion decisions. Unfortunately, most of the top marketing journals listed there prefer quantitative research. So, if you're a new academic there is a lot of pressure to produce quantitative research that is publishable in leading FTL journals.

The other big problem that academics face is simply „getting the data required for quantitative analyses”. When I started my career back in the 1980s, it was easy to send out a questionnaire to managers. I would get a huge number of completed surveys. Today, no one wants to fill out questionnaires and response rates are very low. Often, you have to pay managers to complete and return surveys. In Europe and Asia, business culture is different. Managers have long preferred personal interviews to surveys. Thus, data collection was a long, tedious, and costly process which often inhibited doing quantitative research.

In the US today, the trend in journal articles is toward „analytics”, which entails mathematical analyses of databases from companies and/or consulting firms. In addition to being „in vogue”, analytics are easier to do. All you have to do is approach a company and ask them to contribute a large database (often from point-of-sale systems) for you to study. Many companies will do so because they don't have the personnel to do such analyses and they want to draw upon the analytical skills of academics. Once an academic obtains a database, he/she runs analysis after analysis until they discover some findings that are of interest and worth publishing. Our colleagues in Finance do the same thing with financial databases from corporations. Again, analytics removes the hassles and difficulties of gathering data for studies. It makes life easier for the academic.

Now, there is some debate in the US as to whether the „analytics” craze has gone too far. The argument being that managers are increasingly acting based upon data rather than exercising „common sense”. This argument comes up a lot in Sports these days as well.

Professor Pete NAUDÉ, *The University of Manchester, Manchester, United Kingdom*

Any look at the top journals in Marketing generally will show the sheer predominance of the application of quantitative methods over the last few decades. For those researchers more committed to adopting an interpretivist paradigm, or indeed just a qualitative approach more generally, the fight seems to have been lost. What is interpreted as being 'good science' by the top scholars in the field implies almost exclusively the adoption of advanced analytical tools.

This seems a pity – there are many other fields of management or humanities more generally where this fixation on the application of quantitative techniques is not seen as a prerequisite.

Within the IMP Group more generally, the same pressure can be felt, and is reflected in the trends of the focus of papers presented at the annual conference. The IMP Group has a long and proud history of the application of the case study approach to develop our understanding of the intricacies of the interactions, relationships and networks that characterise b2b marketing. It seems certain to me that the increasing use of Social Media and also of Artificial Intelligence within B2B marketing is going to make these even more intricate and difficult to understand without employing case studies to fully comprehend the role of various antecedent, moderating, mediating and outcome variables. Unfortunately, too many academics, especially those working in environments where promotion is based on publications in a fairly narrow range of journals, are being pushed in the opposite direction.

Professor Enrico BARALDI, *Uppsala University, Uppsala, Sweden*

Just over 20 years ago I was struggling with colleague Roberta Bocconcelli to create a quantitative data collection tool capable to capture the complexity of resource combinations and interactions in networks. We devised a questionnaire that would cover a selected set of interfaces around a particular resource, for instance a product or machine. But we realized soon that it would be quite arbitrary to select which interfaces to include and which to exclude in this „slice of network DNA”. Maybe the criterion of being the „most important” resource for the focal one could help in this selection. But here again the question arose of „important in which sense”? In economic, in technical or in social terms, and important now or in terms of future developments? These various options were considered, and the questionnaire was growing and growing at every new specification of how resources can influence each other that we could come up with. One can eventually wonder if it really is the search of the „most important” connections or interfaces between resources which is the most relevant research pursuit: maybe it is from an apparently unimportant resource that a major effect can occur. These kind of indirect or hidden effects are particularly important in complex socio-technical systems and something that IMP studies of industrial networks can take the pride of having stressed for several decades.

The problem with a quantitative questionnaire is that it can hardly help discover something new about a complex business relationship or even more about a network. Unsurprisingly, we eventually opted for not using that questionnaire to investigate how resources are combined in networks. But our experience is reported in the article „The quantitative journey in a qualitative landscape. Developing a data collection model and a quantitative methodology in business network studies, *Management Decision*, Vol. 39, No. 7, Sept. 2001, pp. 564-577.” Moreover, the effort of systematizing which specific data should be collected and how to do it in order to investigate complex resource interactions and combinations was useful for designing series of comparable qualitative case studies. In fact, while it is challenging, and also quite limiting, to model in quantitative terms a network or even a restricted section of a network, smaller qualitative case studies can still be applied to collect selected data about a pre-defined set of actors, resources or activities. The flexibility and interpretative nature of case studies can still allow discovering something new or identifying unexpected connections even in these smaller-scale networks. It would then be possible to confront and combine the evidence from many of these smaller cases and networks in order to identify broader patterns. Who said that large numbers of observations must be fully quantitative in order to be comparable and be used together?

Professor Lars-Erik GADDE, *Chalmers University of Technology, Gothenburg, Sweden*

Qualitative case studies – highly useful, but difficult to use appropriately

1. Overview

My contribution provides no arguments in the debate related to quantitative versus qualitative research paradigms. Since the chapter is concerned with IMP research I will focus entirely on qualitative studies since this approach has been clearly dominating in IMP research. First, I will present some thoughts why I think these conditions are at hand. Second, I will discuss some problematic features related to qualitative case studies in general. Third, and finally, I will highlight some actions that might reduce these problems and improve both quality and status of qualitative case studies.

2. Why IMP research is dominated by qualitative case studies

Any research area evolves through the interplay among three basic elements: theories, methods, and research phenomena. This means that some theories and some methods are more appropriate than others for studies of certain phenomena. There is also a link between theory and method since the selection of some methods would not fit with the assumptions in some theories. These conditions also imply that certain phenomena will require their specific methods and theories.

The first pan-European IMP project was launched with the objective to develop more adequate conceptualisations of business reality than the established ones that were mostly based on positivistic and quantitative studies. IMP's ambitions to enhance the understanding of the business reality and develop theories regarding the nature of interaction in business relationships, required empirical insights that could be attained only through deep-probing qualitative case studies. Over time the interest of IMP researchers moved to even more complex network phenomena, such as interaction between actors, interdependencies between activities, and interfaces among resources.

As the theoretical frameworks and concepts within IMP evolved, they directed the attention towards more complex phenomena which further strengthened the links between IMP theory and qualitative case studies. These links also had a strong impact on which empirical phenomena became subject to scrutinizing. Therefore, in my view, the relationships between theory, method and research phenomena is a natural explanation for the strong IMP adherence to qualitative case studies.

This is not to say that qualitative studies are more appropriate than quantitative studies in a general sense. But qualitative research is obviously more appropriate regarding phenomena of interest to IMP. In studies of other phenomena, quantitative methodology may certainly be a more adequate approach.

3. Some problems related to qualitative case studies

Historically, case study research was perceived a „second-best” alternative when it comes to methodological approach. Quantitative, survey-based, studies were considered more „scientific” since they can rely on commonly accepted recipes and formal procedures for statistical sampling, analysis of data, and evaluation of research quality.

Over time, qualitative case studies have been increasingly applied within many research domains. According to its advocates, this approach enables enhanced understanding of research phenomena. Qualitative case studies are especially suitable for complex research issues since they place the research phenomenon in its context, while quantitative techniques normally require severe limitations of this environment.

Despite the increasing popularity, qualitative studies are still met with some scepticism. They are also challenging for researchers since there are few methodological prescriptions available. There are no established criteria for the selection of research objects, no formulas for analysis of variance and other statistical measures, and there is no sign of Cronbach and his Alfa.

Yin and Eisenhardt have made substantial efforts in providing qualitative case research with analytical tools and frameworks to improve the status by making such studies more rigorous. To be successful in these attempts Yin and Eisenhardt focus on one specific type of case research: positivistic studies relying on a linear research process and multiple cases based on replication logic to enable generalization.

However, several writers have concluded that there is a huge variety of different types of case studies, since this field of research contains a plethora of epistemological, ontological, and methodological avenues. Often, these studies apply non-positivistic approaches, rely on a single case, and have no ambitions to generalize. Despite that, researchers tend to refer to Yin and Eisenhardt „in an almost ritualistic fashion, regardless of the purpose and epistemological assumptions”, as it was expressed in a review of case study research. This lacking linkage between methodology and empirical phenomena is probably one of the reasons why qualitative studies sometimes do not receive the methodological status they deserve.

4. How to promote quality in qualitative case studies

Owing to its interpretative features, qualitative research lacks the formalized and standardized procedures that are normally applied to differentiate high-quality research findings from low-quality research. The broad spectrum of research approaches makes it impossible to present general criteria for evaluation of quality, as is possible in quantitative research.

During the recent decade, several authors have claimed that, in the absence of general criteria, qualitative researchers need to increase their efforts to convince their readers about the relevance of their findings. This process must take the starting point in a thorough description and analysis of the methodological approach applied. Persuading the research community about the quality of their studies, qualitative case researchers must be transparent regarding the process of the study.

Therefore, it is highly problematic that qualitative case researchers in many situations do not live up to these requirements. Several reviews of qualitative studies in different research disciplines indicate that researchers must increase their efforts to provide an account for the methodological approach applied. For example, one of the reviews concluded that one third of the papers contained no methodological references at all, and more than half did not explain their procedures for

data analysis. Other reviews found that many papers lacked sufficient details in research design, data collection and data analysis. These features made it difficult to make informed judgements about the quality of the studies.

There are all reasons to believe that the increasing attention to qualitative case studies will be further emphasised since this approach has shown useful in studies of complex research issues. To ensure that findings in such studies are perceived relevant it is important for researchers to apply a transparent approach regarding the interplay between theory, empirical phenomenon, and methodology. Without such transparency regarding methodological aspects, the research society may continue to meet theoretical developments based on qualitative case studies with scepticism.

Professor Håkan HÅKANSSON, *BI Norwegian Business School, Oslo, Norway*
and

Professor Alexandra WALUSZEWSKI, *Uppsala University, Uppsala, Sweden*

Case studies as images

Social science, and especially the wide variety of studies including economic phenomenon, have a long tradition of intense methodological debates. The dispute has above all concerned the pros and cons of quantitative respectively qualitative studies. On one hand this never ending quarrel can be regarded as a sign of health; methodology is a key feature in all research and awareness is compulsory. On the other hand, social scientists' tendency to put one before the other can also be an expression of unconsidered defend of what's accepted in a certain research field. Considering how the characteristics of these different types of approaches have been pinpointed in research areas where they are considered just as complementary alternatives, can perhaps give a less charged understanding. One such is presenting by Peter Galison's (1997) study of the methodologies emerging in experimental microphysics and how it has been related to the increasing complexity of available technical investigation tools. Galison's outlines a distinction between methodologies based on 'image' and 'logic', defined as 'trading zones' between instruments/machines, theories and experiments.

Studies based on methods striving to get an as advanced and detailed picture of the investigated phenomenon as possible are labelled 'image'; that is based on data in its original form. Studies based on methods resting theoretical identified constructions; that is data which is transformed, building „fundamentally on statistical demonstrations” (Galison 1997 p 23) are labelled 'logic'.

We will limit the following discussion to what's Galison identifies as the basic characteristics of image based studies and thereafter consider what aspects of social scientists' qualitative research these highlights.

The image tradition has had as its goal to catch the representation of natural processes in all their fullness and complexity – the production of images of such clarity that a single picture can serve as evidence for a new entity or effect. These images are presented and defended, as *mimetic* – they purport to preserve the form of things „as they occur in the world.” As Galison (1997, p. 23) expresses it:

„The golden event was the exemplar of the image tradition: an individual instance so complete, so well defined, so ‘manifestly’ free of distortion and background that no further data had to be invoked”. (p 23)

The image tradition is especially of interest to the IMP Industrial Network research approach, belonging to a tradition where images have been central through detailed case studies of interactions and connected relationships between businesses and organisations. (Håkansson & Waluszewski 2016) These studies have required detailed descriptions of industrial and economic artefacts in terms of physical products and facilities as well as the social artefacts in terms of organisational relationships. Considering these descriptions from an image point of call forth some certain specific characteristics.

A first one is that an image; a qualitative picture, can be considered as hard facts. A thoroughly developed image of certain phenomenon is a research result of which cannot be devalued to ‘soft data.’ However, in order to be qualified as hard facts there is high requirements of how to document the image. For researchers engaged in creating pictures of economic interactions in and industrial setting this includes the challenge of using personal accounts; through interviews of archive material and how to utilise these in the image process. Hence, Galison’s image characteristics is encouraging in terms of taking the scientific value of studies based on detailed pictures of certain phenomenon seriously. However, it is also demanding, requiring not only advanced pictures with high precision but also elaborated documentation of how these were achieved.

Professor Ivan SNEHOTA, *Università della Svizzera italiana (USI), Lugano, Switzerland*

Quantitative vs Qualitative labels in business research

It appears common among academics in the field of Business studies to distinguish between qualitative and quantitative research and also to categorize researchers as qualitative or quantitative. The debate about the qualitative – quantitative divide has been going on for decades. The dispute among academic researchers moved

from issues regarding the scope for quantitative and qualitative research methods to rather heated dispute about the compatibility of the more fundamental epistemological assumptions of the quantitative and qualitative „paradigms”, frequently equated with positivist and interpretivist. Debating the underlying assumptions of the quantitative and qualitative paradigms resulted in differences that go beyond philosophical and methodological issues. The two paradigms have given rise to diverse journals, different sources of funding, dissimilar expertise, and refinement of different methods and appear divisive of the research community in our field, leading to emergence of two camps. Academic researchers in our field are expected and invited to take side and to declare the belonging to one or the other camp.

One stream in the debate has produced arguments in favor of „mixed” methods; another, more limited, argues that qualitative research methods fit exploratory research while quantitative methods mean rigor in theory development and testing. The mainstream position appears to be that the most frequently used mixed-method empirical research design starts with a qualitative pilot study followed by quantitative research.

It may be useful to remind ourselves, however, that there are good reasons for rejecting the „either-or” choice based on the claim, dated but still valid, that researchers should not be preoccupied with the quantitative-qualitative debate because it will not be resolved in the near future, and that epistemological purity does not get research done (Miles and Huberman, 1984).

Taking on the lens of the IMP research tradition, the distinction qualitative/quantitative is at best tolerable when it comes to describing empirical research studies, but it is rather inappropriate and misleading, even if common, when it is used to characterize research approaches and researchers. Yet, it is common to claim that quantitative research is research that produces numerical data whereas qualitative research generates non-numerical data. Part of the problem is the difficulty to define the meaning of the qualitative and quantitative. Notwithstanding numerous position papers offer definitions, these often result in crude statements as „quantitative research deals with numbers and statistics, while qualitative research deals with words and meanings and both are important for gaining different kinds of knowledge” or that „quantitative research method plays a crucial role in the justification of research, and that qualitative methods are not good for justification but are excellent for discovery”. Statements like these abound in textbooks on research methodology and in graduate and post-graduate courses on research methods in our field.

Juxtaposing qualitative and quantitative, research is to confound the very nature of scientific enquiry and transpires existence of ideological biases; it implies that academic research is about testing the hypothesis with large data sets and over-

looks different routes in generating knowledge that can support acting in social context (Gigerenzer & Marewski, 2015). But, most importantly, it distracts from the core issue in business studies regarding the very nature of a rational (scientific) enquiry in business studies that is quite simple even if not easy. At the very core of the rational (scientific) enquiry is observation and interpretation of empirical phenomena, or as some have put it, the interplay of conceptions and perceptions (Weick, 2016). The nature of research in business studies – observation and explanation can be expressed in simple words - it is about seeking regularity or pattern or striking feature of an observable phenomena regarding the organizing of economic activities, and to propose a hypothesis that might account for the observed features. The currency of such enquiries is thus observations, hypotheses and useful resemblances. Nothing more obscure or contentious (Davies, 2021). To that end observation and explanation, or to put it differently - conceptions and perceptions- are mutually constituent. This argument about the entwinement of the observation and explanation goes apparently back to Kant who set the claim that perception without conception is blind, conception without perception is empty. We need both data on the phenomena and ideas about the meaning of the data and about implications for how to act.

In business studies, like in economics, our object of research is always in becoming and our understanding, the hypothesis we develop, is mostly judged dependent on how useful it can be for acting sensibly on the phenomena. Therefore, it seems to be more important to talk about implications rather than predictions. The usefulness of propositions that research generates needs to be continuously tested and advancing these implies integrating qualitative (interpretative) and quantitative (observational) elements. Conceiving phenomena and acting sensibly is an integration of quantitative and qualitative reasoning, a fusion of two elements that cannot be distinguished and regarding which neither has a privileged place. Research in our field should prepare people for what they do not see, building capabilities rather solving problems.

The hallmark of good theory is parsimony which is not a matter of qualitative or quantitative dimension and even less of imposing useless and dogmatic limits on ways to observe phenomena, generate and interpret data, and outline explanations. In business studies we use both induction and deduction in every study and most of the data on which our reasoning is based on are qualitative even in quantitative studies and require both qualitative and quantitative analysis even when it implies simply counting.

The terms qualitative and quantitative are improper and lead astray because these terms belittle the importance of methodological issues. Methodology is more than designing empirical research studies. Scaling back the dispute on

the virtues and vices of qualitative and quantitative research is bound to help in refocusing the core issues in business studies and to produce much needed actionable insights.

The contemporary business landscape offers wide opportunities and an endless row of phenomena of which we have but limited understanding and only loose grounds for how these can be dealt with. Researching the contemporary business landscape implies coping with issues where the qualitative and quantitative dimension is secondary (Hakansson & Snehota, 2017). We need to identify and describe the phenomena shaping the business landscape and thus much richer description of these. We need explanations that support addressing the phenomena and acting on these rather than attempts to predict the future developments. We need feed-back on the actual validity of both the explananda and explanans proposed that goes beyond the formal aspects. We need all of that based on acknowledging clearly that the landscape is evolving all the time as a consequence of the interplay of actual conceptions and perceptions of the actors that drive the change in the landscape.

Judit Simon's research certainly spans across the qualitative – quantitative divide and testifies to the need to deploy all methodological means that can be mobilized to achieve actionable insights when facing the phenomena characterizing the contemporary business context. Her research endeavour evidences that overcoming the quantitative - qualitative chasm not only is possible, but also leads to advancing the much-needed better understanding of the complex dynamics of the evolution of the business landscape. Mixing up the words, one might claim that her research reminds us that we need both quantity and quality in research in order to attain better understanding of the current business landscape. My gratitude for stimulating the interest for the issue goes to her.

In sum, **Judy Zolkiewski** stated that „*some of the quantitative researchers are gracious and generous in their understanding of the benefits of qualitative work.*” And she has totally right. And a great example is, as **Ivan Snehota** stated: „*Judit Simon's research certainly spans across the qualitative – quantitative divide and testifies to the need to deploy all methodological means that can be mobilized to achieve actionable insights when facing the phenomena characterizing the contemporary business context. Her research endeavour evidences that overcoming the quantitative - qualitative chasm not only is possible, but also leads to advancing the much-needed better understanding of the complex dynamics of the evolution of the business landscape.*”

A very subjective appendix

Laudation (1)

A few years ago (in 1995 exactly) at a university that was no longer called the Carl Marx University of Economics but was not even called the Corvinus University of Budapest, I entered Judit Simon associate professor's office as a green-eared assistant professor and asked: „Judit, can you help me?” Of course, she could because she was like that. Then she helped how we could use content analysis to analyse tenders in Hungary. Prior to that, Judit did not deal extensively with tenders nor content analysis. She helped, we solved the issue, which then became the subject of our first joint international publication a few years later.

Judit helped me, as always in the good few years since. She helped whether I worked in Hungary or France, whether we were at the same university or not. And meanwhile, Judit became more and more familiar with the IMP, so much so that in 2010, when the IMP first held its annual conference in Central and Eastern Europe, namely in Budapest, Judit was the head of the organizing committee. Indeed, it was a very successful conference, even today, more than ten years after the event, I often hear from participants that the Budapest conference was one of the best conferences of the IMP. Judit contributed here too and worked a lot for the success of the conference!

We talked about tenders back in 1995, and since then, together, often involving other colleagues, we have published 10 international scientific articles and 20 international conference papers.

Dear Judit, thank you very much for your sincere, selfless, and friendly help over these more than 20 years of fantastic cooperation.

I wish you „more work” with sincere friendship,

Tibor MANDJÁK

Full professor of marketing

EM Normandy Business School

Eötvös Lóránd University of Budapest

Member of the IMP Board

Laudation (2)

I first met Judit when I was a Ph.D. student, and she was our lecturer of Marketing research. Her research interest, health care marketing, was very close to my Ph.D. research topic, which was about drug purchases of hospitals. We had our first IMP Conference paper written together in 2006. Since then, we have several other conference papers and articles written together in *Industrial Marketing Management*, *Journal of Business and Industrial Marketing*, *The IMP Journal*, etc. I have been

learning a lot from her continuously during my academic career and also during my personal life. Her professionalism, energy, and insistence are what I admire in her the most. Due to our amity, I wondered if I had a daughter, I would name her after Judit. It happened to be that I have two sons, just as Judit has. Thank you for your friendship, and I wish more work for us. Happy Birthday, Judit!

Zsuzsanna SZALKAI
*associate professor,
 Budapest University of Technology and Economics
 member of the IMP Group
 co-founder of hIMP*

Laudation (3)

Judit has been an opponent of my PhD dissertation. We had previously met at student market research competitions and conferences, but I came into closer contact with her when she was evaluating my doctoral dissertation. It was important to me that my dissertation was reviewed by someone who has been specialized on marketing research methodology, so it was an honour for me to have her as my opponent. Judit's evaluation was very thorough and helpful in guiding me, and I learnt a lot from it. Now, years later, it is my pleasure to work with her at hIMP. I have experienced the same helpfulness and thoroughness during our work together as well as the same openness and kindness. I am looking forward to doing more work with her. Happy Birthday, Judit!

Erika HLÉDIK
*associate professor
 Eötvös Loránd University of Budapest
 member of hIMP*

Laudation (4)

I express my sense of gratitude to Judit for supporting me to be member at research group (Hungarian IMP). Her guidance, constructive criticism, as well as her kind and hilarious personality have contributed immensely to the ideas, articles and evolution of the hIMP.

Mária MAGYAR
*assistant lecturer
 Eötvös Loránd University of Budapest
 member of hIMP*

Laudation (5)

I met Judit as a student at Corvinus University more than 20 years ago. Dear colleagues! – she called us that way, which was weird at first, but then we could experience that she was really treating us as a partner. I was impressed by her student-friendly style and directness. She carried the problems of students in her heart, she enjoyed talking to everyone, even until late at night. The lamp in her room had always been on for the longest time on the floor, and even when she was head of the institute, her door was always open to everyone. She became later my PhD supervisor, supported me in everything and stood by me all the way along the long road. In the meantime, my first child was born, and I might not have finished my dissertation if I hadn't felt it was important to her, too. I left the university seven years ago and started my own business, but our relationship didn't break, it turned into a deep friendship. hIMP is also important to me because we can continue to work together here, I hope for a very long time to come. Judit has achieved great results in both research and education, but for me she shows me an example of how much she loves what she does. There is always a pleasant, family atmosphere around her. She is a true team player, her person is characterized by trust and cooperation. All these can serve as examples for the next generation. Thank you Judit!

Edít NEUMANN-BÓDI

executive director of Italműhely Ltd.

member of hIMP

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Omnichannel customer behaviour in Hungary – the case of the sporting goods market

Ákos NAGY, Ildikó KEMÉNY, Krisztián SZŰCS, Péter NÉMETH

Abstract

In today's world customers' purchase process became dynamic and more digital. Endless opportunities and means arise on the retailers' side to combine different channels and contact points in order to provide a seamless and satisfying experience to customers. In our research, we've focused on omnichannel shopper behaviour across channels in the product category of sporting goods. This research is especially aimed at assessing the prevalence of two behaviours: webrooming and showrooming. Results of a CAWI survey with 1000 respondents show that webrooming is the most preferred customer journey type, which means that respondents like looking for information on the Internet and they prefer to use the physical stores for purchasing goods. Beside that, four major shopper segments could be identified, where omnishoppers are present and prefer both webrooming and showrooming. These customers are at the core of future retailing and their preferences and customer characteristics are important not just out of academical but out of practical reasons as well.

Keywords: omnichannel shopping behaviour, showrooming, webrooming

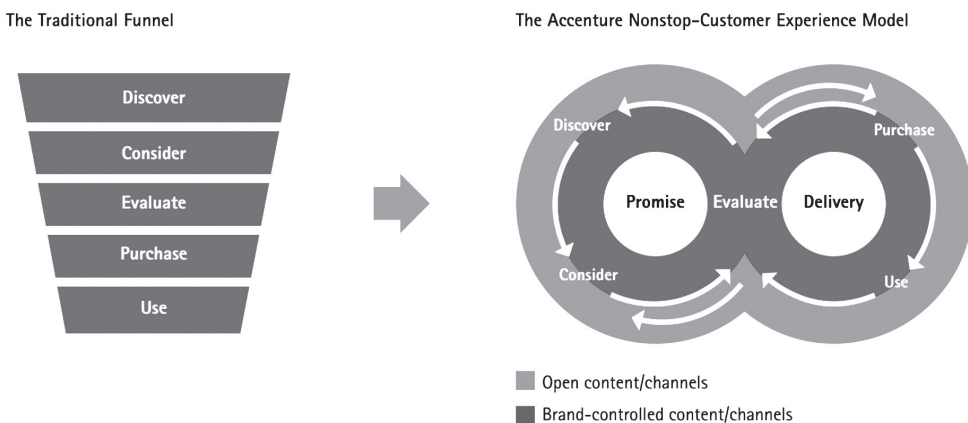
1. Background, introduction

Nowadays digitalization plays a crucial role in business life. With the rise of the internet and advances in information technology, customers can interact on many platforms with retailers, competitors, manufacturers, other customers, and independent providers along the purchasing process; they can access information and shop using several touchpoints (Lemon and Verhoef, 2016). The incredible expansion of communication technologies greatly increases the opportunity for customers to engage with brands, companies when and where they choose (Rangaswamy and van Bruggen, 2005). „Self-service and virtual technologies provide various opportunities for involving the customer into the retail activities and re-

shaping the tasks of the marketer and retailer, service provider” (Agárdi 2018, p. 588). „Advances in information technology and communication have led to an increase in the number of retailing formats through which consumers can contact a company during their customer journey. In addition to traditional physical and online stores, new mobile channels (mobile devices, branded apps, social media, and connected objects) and touchpoints have transformed the consumer buying process.” (Mosquera et al. 2017, 235)

In this vein, there have been significant shifts in retailing strategy over the last decades. „Consumer behaviour along the purchasing process has been changing from a linear, single-channel shopping behaviour to a complex, network-structured omnichannel behaviour that spans over a multitude of different online and offline channels (Srinivasan et al., 2016)” (Kleinlercher et al 2020, 1). Today’s customers, often called as omnichannel consumers (Yurova et al., 2017) or omnishoppers (Juaneda-Ayensa et al., 2016) use multiple channels during their shopping journey. With the emergence of new mobile technologies and widespread social, peer-to-peer platforms, the customer journey has become more and more complex and dynamic, became a non-linear path to purchase. This path used to be illustrated by traditional marketing as the sales „funnel,” which begins with awareness, moves through consideration and evaluation and ends with purchase and retention. By contrast, while today’s buyers still move through these same stages of the journey, they no longer leave the process at the accustomed exit of „purchase”; instead, they continuously cycle through the stages of the journey, without ever exiting the evaluation process (Carroll & Guzmán (2015)) (see Figure 1).

Figure 1. The Nonstop-Customer Experience model



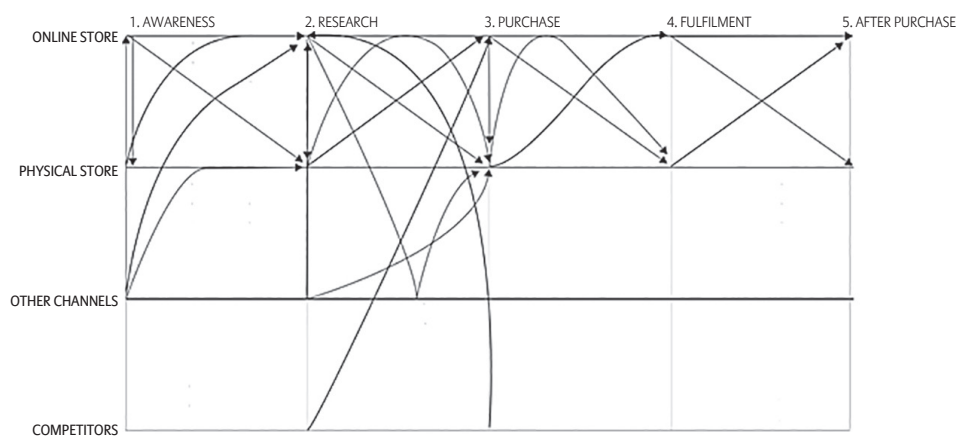
Source: Carroll & Guzmán (2015, 3)

2. The different aspects of channel management and customer journey

The multi- and omnichannel literature can be characterized by three major research topics: (1) impact of channels on performance (2) shopper behaviour across channels and (3) retail mix across channels (Verhoef et al., 2015). In our research, we plan to focus on the second research realm and address especially the issue of shopper behaviour across channels.

A „channel” is defined in this environment as a customer contact point or a medium through which the company and the customer interact (Neslin et al., 2006). In this manner, multichannel management is „the design, deployment, coordination, and evaluation of channels to enhance customer value through effective customer acquisition, retention, and development” (Neslin et al., 2006 p. 96). In the omnichannel literature, it is widespread to include communication (not just distribution) channels among the touchpoints across which the customer experience is managed (Cui et al 2021). According to Verhoef et al. (2015, p. 3) it is important to broaden the scope of channels to include customer touchpoints that occur in one-way and two-way communication channels even if those channels are informational and not transactional. Ailawadi and Farris (2017) also simply observe that the term „omnichannel” often includes channels of distribution and channels of communication. From the companies’ point of view, consumers switch randomly between channels and even between brands or providers depending on their needs at different stages of the buying process (see Figure 2.). This opportunistic behaviour, where customers first find information from one company and then buy the product from another company is further enhanced by the increased usage of mobile devices while in-store (Pelota et al. 2015).

Figure 2. Different customer journeys from the research of Pelota et al. (2015)



Source: Pelota et al. (2015)

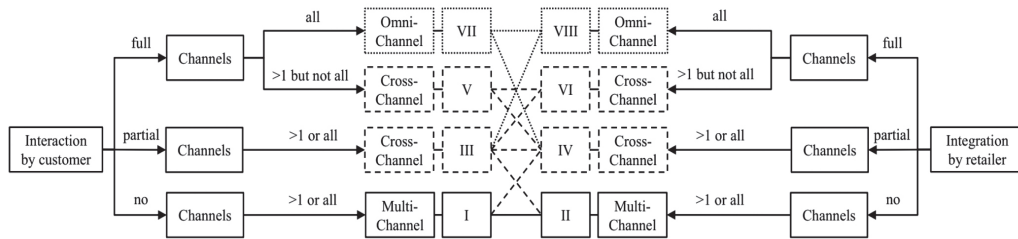
In the past few years, the concept of customer journey has been widely adopted and it is frequently used in omnichannel context (Yanika et al 2021). The concept places customers at its heart, making it a useful framework in assessing and evaluating customer experience. The analysis of customer journeys is useful in highlighting critical service moments and touchpoints that are significant. This is an important aspect in managing channels and researching customers' preferences about channel choices. Customers continuously assess their experience and reconsider their channel choice throughout their journey (Anderl et al. 2016). They tend to behave heterogeneously and use different channels for specific reasons (Gao, Melero, & Sese, 2019). These specific reasons need to be highlighted and can serve as the basis of classification of customers, in this regard segmentation approaches.

As Carroll & Guzmán (2015) state there is a clear trend in many industries toward the use of multi-channel approaches to engaging with customers. But in focusing on multi-channel, companies may be overlooking a more fundamental need—for a seamless, „omni-channel” approach that provides a single, unified experience for the customer across all channels.

The terms multi- cross- and omnichannel do not share a common meaning in academic literature, and thus their conceptual boundaries are blurred (Beck & Rygl, 2015). The omnichannel concept is perceived as an evolution of multichannel retailing. In multi-channel retailing, the retailer offers several channels as independent entities in order to align them with specific targeted customer segments. Cross-channel in this regard means an improvement, because it includes the first attempts to integrate offline and online channels and enhance the cross-functionality between them (Mosquera et al. 2017; Juandeda-Ayensa et al. 2016). According to this classification attempts, multichannel retailing implies a division between the physical and online store, while in the omnichannel environment, customers move freely among channels (online, mobile devices, and physical store), all within a single transaction process (Melero et al., 2016). Omnis in Latin means „all” or „universal,” and in this regard omnichannel means „all channels together” (Lazaris and Vrechopoulos, 2014).

Beck and Rygl (2015) proposed a taxonomy to highlight the different contextual backgrounds and managerial implications of these terms. The classification of multiple channel retailing initiatives is according to two dimensions: (1) whether channel interaction can be triggered by the customer or is controlled by the retailer; and (2) how many and what channels are considered.

Figure 3. Categorization tree in Multi-, Cross-, and Omnichannel Retailing for retailers and retailing



Source: Beck & Riegl (2015)

„Categories I and II refer to Multi-Channel Retailing. Although the retailer offers more than one channel or all channels widespread at that time, these channels coexist without the possibility for the customer to trigger interaction, nor the possibility for the retailer to control integration. Categories III and IV of multiple channel retailing refer to Cross-Channel Retailing. Contrary to Multi-Channel Retailing, with Cross-Channel Retailing the customer can trigger partial interaction and/or the retailer can control partial integration of at least two channels or all channels widespread at that time. Categories V and VI of multiple channel retailing also refer to Cross-Channel Retailing. In comparison to the Categories III and IV, the customer can trigger full interaction and/or the retailer can control full integration of at least two channels but not for all channels widespread at that time. Categories VII and VIII refer to Omni-Channel Retailing. The retailer offers the customer all channels that are currently widespread. Additionally, the customer can trigger full interaction and/or the retailer controls full integration of all channels.” (Beck & Riegl 2015, p. 174-175.)

Verhoef et al. (2015) define omnichannel management as the synergetic management of the numerous available channels and customer touchpoints, in such a way that the customer experience across channels and the performance over channels are optimized. Omnichannel behaviour refers to the use of both physical and digital channels combined with the delivery of seamless shopping experiences (Lazaris & Vrechopoulos, 2014). Omnichannel retailing out of the perspective of the store is defined as „a set of integrated processes and decisions that support a unified view of a brand from product purchase, return, and exchange standpoint irrespective of the channel (in-store, online, mobile, call centre, or social)” (Aberdeen Group, 2012, p. 1).

Although omnichannel creates new opportunities, it also represents complex challenges and there are concerns about the perceived quality of these channels due to a lack of reliability of the system, knowledge and competence of provid-

ers as well as customers, privacy and security of information, and their effects on outcome constructs (Sousa and Voss 2006). „A review of the literature reveals that this research stream has predominantly focused on the impact of the addition or deletion of channels on firm performance (e.g. Cao and Li 2015), with little empirical evidence about the impact of perceived quality and value within and across omnichannels and their effects on service outcomes, firm performance” (Akter et al. 2018, p. 72.). It is also notable that customers’ characteristics, previous knowledge and experiences, technology acceptance are key factors in adopting new technology driven shopping environments. For example, demographics, channel knowledge, perceived channel utility and shopping orientation are related to online shopping behaviour. So, it is also important to consider the possible moderating roles of customer characteristics.

3. Showrooming, webrooming, etc. – the research shopper phenomenon

Consumers combine both online and offline channels to minimize associated shopping costs and to maximize its potential benefits (Gensler et al. 2012). Choosing different touchpoints in their search and purchase phase, means engaging in the so-called research shopping behaviour. This term and concept was coined by Verhoef et al. (2007, p. 129) defined as „the propensity of consumers to research the product in one channel and then purchase it through another channel.” Accordingly there are two basic and widely recognized types of customer behaviour, which can be identified from the research shopping process aspect: webrooming and showrooming.

Webrooming assumes that customers known as webroomers „research products online, but purchase products in a physical store” (Kumar et al. 2016, p. 11). In contrast, showrooming is defined as a practice whereby customers, known as showroomers, „visit physical stores to check out products and to then buy them online” (Flavián et al. 2016, p. 460).

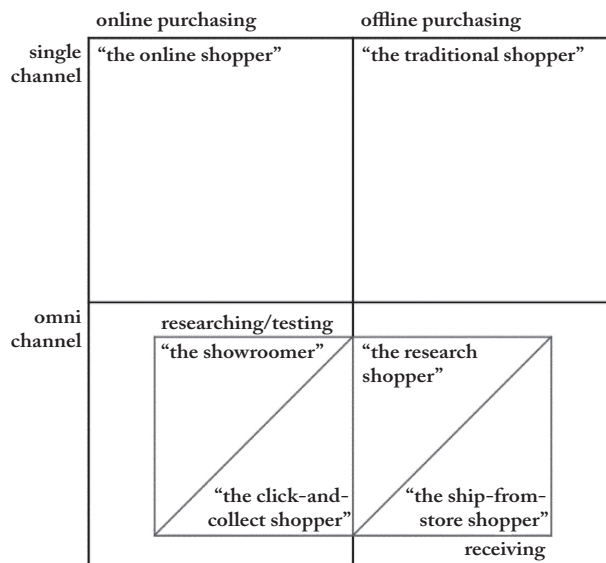
In order to define showrooming and webrooming Flávián et al (2019, 2) apply the two-stage choice phase approach - choosing the product and making the purchase - of the consumer purchase decision-making process. In this sense webrooming appears when the consumer first looks for the product that probably best matches her/his needs and finds it on the Internet; thereafter, (s)he goes to the physical store to confirm the product information and make the purchase (Flavián et al., 2016). Webrooming occurs when shoppers compare product prices, features and customer opinions online, however, make their final purchase offline (Wolny & Charoensuksai, 2014). In showrooming, consumers examine the desired product at the physical store and then make the purchase online (Kang, 2018). Rapp et al.

define this behaviour as the practice of „using mobile technology while in-store to compare products for potential purchase via any number of channels” (Rapp et al., 2015, p.360).

Webrooming and showrooming are now common practice among omnichannel consumers. Although a review of the literature shows a tendency to consider webrooming as the dominant research shopping practice (Fenández et al. 2018), showrooming is a growing trend in cross-channel shopping (Rejón-Guardia and Luna-Nevarez, 2017). This would mean that the Internet is the preferred information source and the physical store is the main purchase channel (Flavián et al 2020).

Although showrooming and webrooming are prevalent customer journey types, Rai et al (2019) derived six omnichannel shopping behaviour profiles based on two axes: whether consumers address only one channel type (single channel) or multiple channel types (omnichannel) throughout their shopping journey and whether consumers purchase their product online or offline (Figure 4). Online purchases complemented with offline researching and/or testing activities are captured in „the showroomer” profile, while online purchases that are picked up in-store are captured in „the click-and-collect shopper” profile. Offline purchases in-store that are complemented with online research belong to „the research shopper” profile, while in-store purchases that are delivered to consumers instead of taken home belong to „the ship-from-store shopper” profile.

Figure 4: Six omnichannel shopping behaviour profiles



Source: Rai et al (2019)

Nevertheless, customers have always engaged in free-riding behaviour to avoid uncertainties associated with the purchasing process, they also strive for optimizing their purchase behaviour and use cross-channel synergies for their benefits. Studies have considered the influence of channel synergies on customer behaviour, but only a few address how specific channel combinations affect the customer experience (Y. Li et al., 2018). It is important to understand the consequences of webrooming and showrooming in order to anticipate what customers expect when undertaking these behaviours (Lemon and Verhoef, 2016) „Combining channels during the purchase process may lead customers to perceive themselves as, and feel like, smart shoppers” (Flávia 2020, p. 3). From a customer standpoint, each channel exhibits characteristics that have both benefits and limitations (Avery et al., 2012; Kushwaha & Shankar, 2013). The online purchase channel is a primarily informative channel, offers instantaneous access to product information, the ability to search, sort, and compare products, and a low-pressure sales environment (Balasubramanian et al., 2005).

4. Industry overview for omnichannel retailing

Since the term ‘omnichannel retailing’ was introduced by Rigby in 2011, numerous academic papers have been published in this topic. But what has happened in the industry in the last decade? How have companies responded to this challenge? We have collected several industry reports and analyses about the current state of omnichannel retailing from all over the world and also from Hungary to get a thorough industry overview.

Before sharing the main results of our desk research, it is important to highlight that there is a significant difference in the interpretations of the term. Originally, Rigby (2011) stated that «The name reflects the fact that retailers will be able to interact with customers through countless channels ...», which shows the term’s orientation toward marketing communication. Later, new perspectives enriched the definition and nowadays it also contains reflections to buyers’ decision-making processes.

A study measured the actual state of omnichannel retail in 2017, where respondents defined the term differently even though more than 90% of the sample reported to have omnichannel strategy (Brightpearl & Multichannel Merchant). In the survey, retailers had to choose those features that characterize omnichannel retail (Brightpearl & Multichannel Merchant 2017:9):

- having different methods for transacting with customers (67%),
- delivering a seamless and consistent customer experience across all channels (66%),

- marketing strategies geared towards customers converting on any channel (64%),
- processes like click+collect, buy in store deliver elsewhere (40%),
- giving customers the ability to see all of their orders in one place (37%),
- speedy delivery times (21%).

This result shows that omnichannel retailing is a complex term and includes several processes in serving customer segments.

According to a recent study by IHL Group (2020), there are six categories of an omnichannel service customer journey. These are the followings (Unified commerce, p.2):

- 1) BORIS: buy online, return in-store,
- 2) BOPIS: buy online, pickup in-store (shipped to store for pickup),
- 3) Buy in-store, ship from a warehouse,
- 4) Click&Collect: same day pickup at the store,
- 5) Curbside pickup,
- 6) Buy in-store, pickup in another store.

It is an important conclusion in the study that different categories result in different margin point loss if customer journey is not optimized. The largest loss occurs typically in case of BORIS. The same study (IHL Group 2020) reports that approximately half of the retailers are prepared for any of the categories supporting different customer journeys.

The main reasons for not being prepared for the omnichannel customer journeys are the followings (Brightpearl & Multichannel Merchant 2017:21):

1. budget pressure and margin compression (61%),
2. turning data into usable insights (58%),
3. integrating different selling channels (52%),
4. choosing and implementing new technology (48%),
5. integrating with other marketing and media platforms and campaigns (48%),
6. communicating the value and need to senior management (42%),
7. competition from online retailers (36%),
8. price transparency (36%),
9. findings and keeping good staff (33%),
10. high customer expectations (30%).

As it is clear from the list above, retailers look at the omnichannel operation as it requires extra efforts and investments and not only redesigning the existing processes.

In another study from 2019, similar findings were reported, however the importance of creating a seamless customer experience across all channels was selected as the most important business goal of the company's omnichannel strategy (Cegid, 2019).

From the customers perspective, omnichannel retailing provide not only easy access to product information and wider range of retailers but it enables to purchase and receive products anytime and anywhere they want (Deloitte, 2014). This new type of convenience needs out-of-the-box solutions on the retailers' side as traditional business models do not result the expected profit level.

Therefore, in our research, we focus on two new retail solutions that might be appropriate reactions to this challenge, namely we have measured the awareness and usage of the showrooming and webrooming services.

According to the American Association of Advertising Agencies (2013) showrooming 'describes the act of examining goods in a brick and mortar store but making the actual purchase online'. This is one of the most significant changes happening in the retail industry in the last few years and many stores decided to adapt to this, especially in case of consumer electronics (63%), apparel, clothing & accessories (43%). The latter one also underlines the relevance of the significance of our research.

In contrast to showrooming, webrooming starts online when consumers collect information about the products available in the market, then they go to the physical store to touch, test the product selected before buying it. Not surprisingly, this type of behaviour has become general in similar markets (consumer electronics, clothing & footwear), but cinema tickets and groceries are bought also in this way.

Other reports, indeed, have also confirmed that webrooming is the dominant cross-channel behaviour (eMarketer, 2014; Google Consumer Barometer, 2015; PushOn, 2018). According to eMarketer (2014), 72% of U.S. digital shoppers purchased a product after they examined it in a store, while 78% of shoppers examined the product online then bought it in a store. In Europe, the last Google Consumer Barometer (2015) showed that 10% of European online users researched products in physical stores before purchasing them online, and 33% engaged in webrooming. PushOn (2018) revealed that UK consumers webroom more frequently than they showroom." (Flavián et al 2020, 2).

TNS Connected Consumer Survey (2015) reported that webrooming penetration in Hungary showed the following results:

- TV sets 64%,
- home appliances 63%,
- cinema tickets 62%,
- groceries 40%,
- clothing and footwear 36%,
- car insurance 28%

were bought in store after selecting the desired product online.

We must also state, that the COVID19 pandemic has accelerated omnichannel adoption — blending physical and digital commerce channels — as consumers quickly adopt digital-first interactions (Gartner 2020). According to Gartner's study by 2025, consumers' omnichannel behaviour will drive 60% of B2C brands toward a functional, rather than channel-based organizational structure.

5. Primary research

In this study an online survey was used to understand the channel preferences, the frequency of the pure and mixed shopping processes, and the popularity of the webrooming and showrooming behaviours, which are the simpler but typically analysed omnichannel journeys in the literature. Based on the items, which were used to understand the webrooming and showrooming behaviours, the respondents were ranked in 4 different segments.

The sample was representative to the adult Hungarian population by age, gender and regions. The survey was run with CAWI and after data filtering we could work with 1.000 respondents' data. However, data collection was after the first wave of the pandemic (in May 2020), results show a useful overview about the state of omnichannel retailing in the sporting goods industry in Hungary.

Most of the respondents were female (52.9%), the mean age was 48.76 (SD=16.23). 21.2% of them lived in the capital city of Budapest, and most of them had tertiary education (44.8%). 34% of the respondents have no kid, and only 15% of them live alone. Table 1. includes the detailed demographic description of the sample.

Table 1. The sample (n=1000 respondents)

Gender		Number of kids	
male	47%	No kid	34%
female	53%	1 kid	22%
Age		2 kids	31%
18-35 years	26%	3 or more kids	12%
36-55 years	35%	Number of households	
56 - 65 years	20%	Alone	15%
above 65 years	19%	2 people	41%
Mean (SD)	48.76 (16.23)	3 people	23%
Income status		4 or more people	21%
very low	4%	Residence	
low	29%	capital	21%
medium	50%	other city	61%
high	17%	village	18%

Source: own research

6. Data and analysis

The channel preferences in connection with leisure clothes, shoes, equipment's shopping were measured based on the study of Flavian et al. (2020) along three dimensions: (1) effectiveness (2) appropriateness, and (3) attractiveness of the online and offline channels to search for product information and to make the purchase.

The channel preferences were measured not in general but only in case of leisure clothes, shoes, equipment's shopping (physical goods). The respondents have found offline shopping significantly more attractive (mean=4.59, SD=2.06), but they've evaluated online shopping significantly more appropriate (mean=5.23, SD=2.06). The effectiveness of the two channels regarding shopping do not differ statistically (t-value=0.94, sig=0.347). However information seeking is evaluated differently. Online information seeking is the dominant form - it is more attractive, more appropriate and more effective to customers. (Table 2.).

Table 2. The channel preferences (n=1000 respondents)

		online information seeking	offline information seeking	online shopping	offline shopping
Attractiveness	Mean	5.54	3.94	4.42	4.59
	St.dev	1.742	2.026	2.038	2.060
Paired Samples Test		21.81 (0.000)		-2.01 (0.038)	
Appropriateness	Mean	5.86	3.71	5.23	4.13
	St.dev	1.673	1.970	2.061	1.995
Paired Samples Test		29.55 (0.000)		12.82 (0.000)	
Effectiveness	Mean	5.54	4.36	4.87	4.79
	St.dev	1.705	2.029	1.968	2.013
Paired Samples Test		16.59 (0.000)		0.94 (0.347)	

Source: own research

The usage of offline and online channels was measured during the customer journey as well. Based on Flavian et al. (2020) the respondents had to evaluate 4 typical, but „simple” journeys:

1. pure online shopping: looking for information online then purchase online,
2. pure offline shopping: looking for information offline then purchase offline,
3. online to offline: looking for information online then purchase offline,
4. offline to online: looking for information offline then purchase online.

A 7-point Likert scale was used to evaluate the shopping processes (1 – not typical at all, 7 – strongly typical) in case of buying leisure clothes, shoes, equipment's. Among the channel usage, respondents get more used to online-to-offline process. The difference between the mean values of pure offline and pure online shopping is not significant ($t = -1.34$, $\text{sig} = 0.178$). The usage of offline-to-online customer journey is the lowest, and its average is significantly smaller than the average of the other „mixed” process (Table 3.).

Table 3. The journey preferences (n=1000 respondents)

	webrooming	showrooming	pure online	pure offline	
Mean	3.85	2.26	3.37	3.50	
St. Dev	2.176	1.699	2.250	2.151	
Paired Samples Test		20.976 (0.000)		-1.35 (0.178)	

Source: own research

The online-to-offline and offline-to-online shopping journeys could be called as webrooming and showrooming behaviour, which are the simplest manifestations of the omnichannel shopping behaviour. These behaviours were analysed more detailed based on 3+3 items using a 7-point Likert scale (1 – not at all typical, 7 – strongly typical).

Table 4. The aspects of webrooming and showrooming behaviour
(n=1000 respondents)

Webrooming	Mean	St. dev	T stat (sig)*
I often look for information about available products on the internet before buying them offline.	4.81	1.979	12.913 (0.000)
Before I purchase a product in an offline store, I first check webshops, prices and description of the product on the internet.	4.86	1.917	14.188 (0.000)
I often seek and find a product on the Internet first, and not in the offline stores.	4.31	1.910	5.148 (0.000)
Showrooming			
I usually look for information in offline stores, and then buy the product online.	2.98	1.881	-17.218 (0.000)
When I see a product in the store which I like, I won't immediately buy it, because I want to check it on the internet first.	3.27	1.902	-12.170 (0.000)
When I choose a product in the store, usually I check on the internet whether it is available or cheaper on the internet, and what are other opinions about it.	4.14	2.091	2.072 (0.038)

*Note: reference value for the one sample *t*-test regarding the journeys=4.

Source: own research

The results of the analysis revealed a preference for the webrooming behaviour (Table 4.): the respondents like to check the information and prices of products online before purchasing them (mean=4.86, SD=1.91), as well as to look for information about the available products online (mean=4.81, SD=1.99), or to seek and find a product on the Internet (mean=4.31, SD=1.91). Online searching can be a good way for respondents to make up information for the products, but they prefer to have the contact with the product offline anyway. From the dimensions of showrooming behaviour only one is typical for the respondents: they prefer to check whether the online price is lower and read some online opinions after the product has been chosen (mean=4.14, SD=2.09). Comparing the mean values of the items with the midpoint of the scale (4) as reference value of the average usage, it is apparent that the items belonging to webrooming and the 3rd item of

showrooming is statistically higher, and the others are significantly smaller than the reference value.

The results showed that the respondents like looking for information on the Internet and they prefer to use the offline stores for purchase, so generally respondents prefer webrooming more than showrooming. These are like the findings of previous studies (Flavian et al. 2020, Verhoef et al., 2007).

Using the items describing the aspects of the showrooming and webrooming behaviour a cluster analysis was used to find the possible shopper segments. Using the Ward-method 4 different clusters were identified (Table 5.). The results revealed that the segments of webroomers and showroomers already exist in Hungary: 22.2% of respondents belong to the group of showroomers, 26.3% of them to the webroomers, and a third „mixed” group was also identified (25.9%). The members of this cluster prefer not only the elements of webrooming but also of showrooming behaviour above the average. They were called omnishoppers. The members of the fourth segment, the traditional shoppers reject all the aspects of omnichannel behaviour (25.9%).

Table 5. The shopper segments

	omni- shoppers (n=259)	traditional shoppers (n=256)	web- roomers (n= 263)	show- roomers (n=222)	total (n= 1000)
webrooming					
I often look for information about available products on the internet before buying them offline.	6.56	2.43	5.58	4.59	4.81
Before I purchase a product in an offline store, I first check webshops, prices and description of the product on the internet	6.53	2.76	5.41	4.68	4.86
I often seek and find a product on the Internet first, and not in the offline stores.	5.74	2.47	4.53	4.5	4.31

	omni- shoppers (n=259)	traditional shoppers (n=256)	web- roomers (n= 263)	show- roomers (n=222)	total (n= 1000)	
showrooming	I usually look for information in offline stores, and then buy the product online.	4.02	1.71	1.73	4.69	2.98
	When I see a product in the store which I like, I won't immediately buy it, because I want to check it on the internet first.	5.16	1.57	2.77	3.6	3.27
	When I choose a product in the store, usually I check on the internet whether it is available or cheaper on the internet, and what are others opinions about it	6.29	1.83	4.05	4.38	4.14

Source: own research

The segments differ significantly only in two demographic characteristics: in gender ($\chi^2=8.561$, $\text{sig}=0.036$) and income ($\chi^2=17.38$, $\text{sig}=0.043$). The males are overrepresented in the segment of omnishoppers (54.4%), and the females are overrepresented in the segments of webroomers and traditional shoppers (56.3% and 57%). The lower income segments are overrepresented in the segment of the traditional shoppers (38.3%), and the highest income category is significantly higher in the case of omnishoppers (20.1%).

Table 6. The demographic description of the segments

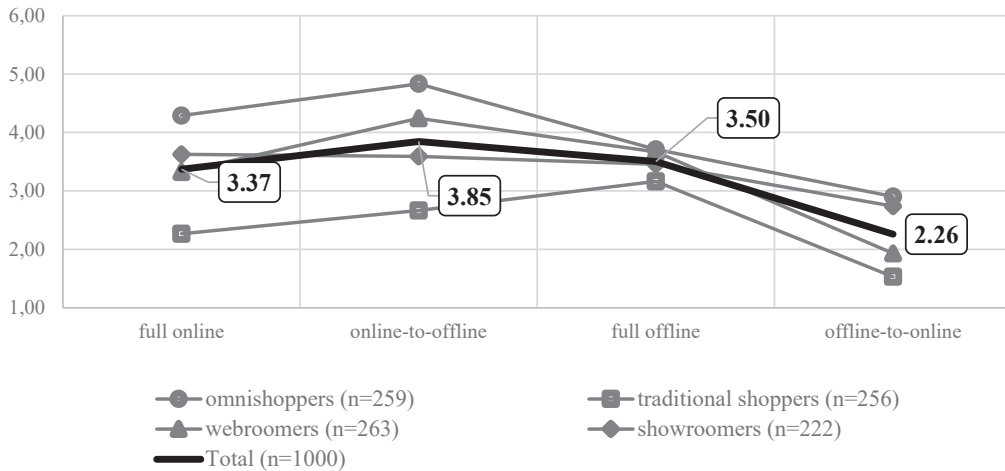
	omni- shoppers	traditional shoppers	web- roomers	show- roomers	Total	Differences
N	259	256	263	222	1000	
gender						
male	54.4%	43.8%	43.0%	47.3%	47.1%	$\chi^2=8.561$
female	45.6%	56.3%	57.0%	52.7%	52.9%	$\text{sig}=0.036$

	omni-shoppers	traditional shoppers	web-roomers	show-roomers	Total	Differences
Residence						
capital	24.3%	21.1%	22.1%	16.7%	21.2%	
county seat	27.4%	26.6%	24.3%	29.3%	26.8%	
other big city	13.9%	10.2%	9.9%	11.3%	11.3%	chi2=13.866 sig=0.309
small city	18.9%	21.1%	26.6%	25.7%	23.0%	
village	15.4%	21.1%	17.1%	17.1%	17.7%	
Income of the household (perception)						
very low	3.5%	6.3%	2.7%	4.1%	4.1%	
low	23.6%	32.0%	25.9%	34.7%	28.8%	chi2=17.380. sig=0.043
medium	52.9%	48.0%	54.4%	44.6%	50.2%	
high	20.1%	13.7%	17.1%	16.7%	16.9%	
Age	47.43 (15.39)	51.12 (16.8)	48.25 (15.92)	48.18 (16.69)	48.76 (16.23)	F=2.57. sig=0.053
Size of the household	2.65 (1.27)	2.57 (1.31)	2.61 (1.19)	2.81 (3.71)	2.65 (2.07)	F=0.61. sig=0.79
How many kids do you have?	1.25 (1.11)	1.35 (1.68)	1.41 (2.43)	1.31 (1.87)	1.33 (1.83)	F=0.35. sig=0.79

Source: own research

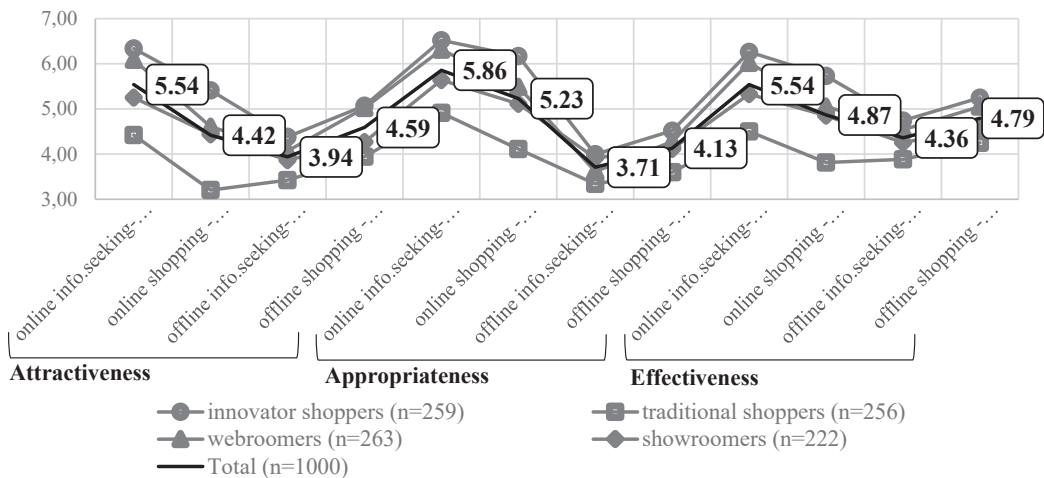
Figure 5. and 6. provide descriptive data regarding the segments. The results show that the omnishoppers have the highest, and the traditional shoppers the lowest average in all analysed cases. The showroomers could be described with high preference toward offline-to-online journey (mean=2.74, SD=1.71), and they evaluate the appropriateness of the offline information seeking also above the average (mean=3.91, SD=1.76). The webroomers have higher interest in pure offline (mean=3.67, SD=2.22) and online-to-offline journeys (mean=6.09, SD=1.32), and they prefer the online channel for information seeking and the offline channel for shopping above the average. These results confirm the typical characteristics of webroomers and showroomers in Hungary.

Figure 5. The journey preferences of the segments



Source: own research

Figure 6. The channel preferences of the segments



Source: own research

7. Conclusions, limitations

Although there is a massive literature base of omnichannel retail, marketing and consumer journey, this is still a relatively unexplored topic in Hungary, especially from the consumers' perspective.

Therefore we collected the most relevant literature from the last decade and showed different approaches to the most significant terms. Also, we examined reports, publications from the industry, which precisely showed the current state and the actual challenges.

In our empirical research, we could examine Hungarian customers in the sporting goods market in relation to their preferences in their consumer journey. Some of our results confirmed previous experiences, e.g. regarding channel preferences and attitudes. It is still general that consumers prefer buying sporting goods in the stores, this is the most attractive channel to them, however, they feel the online shopping more appropriate and effective.

It is an important result in this research that customers follow the webrooming behaviour the most often, then they buy sporting goods offline or online, but relatively rarely they use the showrooming opportunities.

In spite of the lack of frequent showrooming behaviour, we could identify consumers prefer such solutions and even more importantly omnishoppers were also present in our sample.

Obviously, there are limitations in our research as we could measure a relatively specific market in a period, when pandemic has just started and could influence customers' decision making. We measured omnichannel consumer behaviour with survey data but we are going to present new results from a research where transactional data were also available.

As the first research results in Hungary about omnichannel consumer behaviour this paper contributes not only to further academic studies but it may be relevant to the industry professionals too.

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From Health Care Marketing to Personalized Health

Zoltán LANTOS

Abstract

We live in an era of substantial system transformation characterized by not only digitalization and automation, but also the need of social innovation. That also affects the complete health ecosystem becoming a data driven, human-centric service network focusing rather on maintenance of health than curation of diseases. In this paper, I demonstrate the shift from traditional intervention-based health care system to the health-centric service ecosystem, that were strongly supported by new economic models paving the way for marketing to become an important driver in value generation. The result will soon be one-person target groups for many digitalized health services.

Keywords: Personalized health, pervasive health, human-centricity, value-based transactions

1. Health as social product

Trend research and macroeconomic analyses suggest that preserving and restoring health will be the engine of the first century of the new millennium (Nefiodow, 2006). International and Hungarian investigations and analyses reveal that more attention is devoted to health, more is done for health (Lantos, 2011), and more and more spending goes to health (McKinsey, 2012). All these take place in the framework of a comprehensive social transformation, and it means that the health care sector should become patient-centred (Epstein, 2010), or rather person-centred (Christopherson, 2010). When people are put into the centre with the value creation of their health and the respective economic environment, the Service Dominant Logic (Vargo, 2004) provides a good research and analytical framework for describing and explaining the processes. This logic helps to understand and redefine the health ecosystem.

When health-related exchanges are studied from individuals perspective in the Service Logic (Grönroos, 2014), it can be stated that individuals buy various spe-

cialist skills and knowledge to look after their health from various, often independent sub-markets (GfK, 2011 and GfK, 2012), meanwhile establishing their value-creation sphere.

Researches (GfK Roper, 2011) show that continuing efforts should be made to live a healthy life permanently. To achieve this, we come across a variety of knowledge, and we use some of it. Any knowledge—products and services—that supports personal health efforts is well worth an exchange, but individuals try to avoid everything that cannot support or decrease their efforts.

Any form of health care services provides the opportunity to create health value, but customer engagement is needed in the creation process. Value is created by the customer drawing on the knowledge embodied in the product or service. An often mentioned classic example about drugs is that only the drug helps that is taken by the patient.

Interventions as fundamental health-related exchanges are considerably overshadowed by the indirect exchanges during the organizational operation of the health care system. Consequently, the actors of the system fail to see or ignore most of the health-related exchanges that occur outside the system (GfK, 2011 and GfK, 2012). Furthermore, organizational units also ignore most of the exchanges that are taking place between other organizational units (Glouberman, 2001a and b). Thence, individuals perceive the health care system as a machinery in which people are lost, or even become inhuman. In this setting, health care marketing was rather focused on the auxiliary and apparent elements of the service in the form of patient satisfaction and had very little to do with the basic value generation procedures.

The gradually built service-centric health care system replacing the intervention-centric one is becoming individual-centric, as a result of which customer-focused features appear, and personal relationships are emphasized.

The need for patient-centred care emerged during the development of health care services and health care systems almost three-decade ago. The joint study of Harvard Medical School and Pickering Institute (Gerteis, 1993) suggested patient-centred care as a care delivery model instead of focusing on medical sciences and medical technology and expressed the need for patient-focused service management.

Michael Porter constructed an economic model for that medical concept, a framework in which opportunities, economic and financial limitations can be considered and managed (Porter, 2006), in Hungary the concept was first elaborated already in 2005 (Lantos and Simon, 2005) and the model was briefly described by Judit Simon in a book titled 'Marketing in health care' (Simon, 2010). According to Porter, profound change can take place and effective resource allocation can be made only if competition for and optimal allocation of resources takes place on

the level of prevention, diagnosis and treatment of individual diseases or disease groups. This is the level where real values are created or destroyed from disease to disease, from patient to patient. The aim is to increase health value and to create value on the level of disease or medical conditions that can be achieved by developing competences, reducing malpractices, increasing efficiency and improving outcomes. Thus, competition and efforts should be focused on values for patients, and not on technologically professional delivery or cost reduction; this is called 'value-based competition'.

For effective person-centred health value generation networks, a novel health system design, the Community Health Experience Model was developed (Lantos, 2018), and tested in a real-life pilot environment for several disease areas of those results of osteoporosis care were reported first (Lantos and Simon, 2018).

We have already learned by now that our individual health is fundamentally a social product, the combined result of our individual efforts and the support of our social network, which is well-understood and tangible at the time of the manuscript, in April 2021, during the all-pervading presence of the COVID-19 epidemic. Considering the epidemic in a broad societal context, the application of the syndemic – syndrome-synergism concept (Singer 2009) to the current epidemic (Horton 2020) calls for the need to examine and address the interrelated health and social impacts behind the morbidity and mortality data, not just the virus transmission and the infection rate. An analysis of the epidemiological management of individual countries or regions reveals that both community behaviour and government policy measures result in significant differences in mortality rates.

Achrol and Kotler (2012) called attention to the fact that in the new social order we are required to think entirely differently about marketing. At the individual level, experience is the purpose of exchange; at the community level, relationships are becoming dominant and are the main driving force of value interactions; in the globalizing society, however, the main task is to define individual and social responsibilities within the framework of this new society. For health, positive experience supports everyday efforts, relationships constitute strong social support, responsibility bring long term sustainability into focus.

According to the latest complex analyses (Kaplan and Milstein 2019), the health care system contributes about 10% to the prevention of premature death during our lifetime, much less than individual behaviour and social and environmental factors. Individual health status is most affected by the supportive community (Reblin and Uchino 2008) and vitality-providing spirituality (Puchalski 2001). We also already know that a green living environment has a positive effect on people's health (Kondo 2018), for example, those who live in a built environment without plants have much higher levels of basic stress than those who visit parks and forests at least weekly. Our newer knowledge is that regular enjoyment of culture,

attendance at cultural events, and especially the practice of arts have a health-protective effect (Fancourt and Steptoe 2019).

Maintaining our health and individual well-being requires individual efforts on a daily basis (GfK Roper 2011), and our health behaviours are fundamentally determined by the strength of our community relationships and the extent to which we can count on others in the event of trouble (Lantos 2013). The four major health behaviour groups have been shown by studies in different cultures to be universal, independent of other cultural factors (Cecchini 2013). However, the relative proportions of groups can even vary significantly between different social impacts.

People 'living in health' make continuous efforts for the health of themselves and their community, look for healthy solutions, regularly visit screening tests, and perform regular physical activity. They have the strongest and most extensive social network of all groups. They thoroughly process and evaluate credible information, weigh the benefits and risks, and then make important decisions about their health for themselves and their families. They personally experience that „I did everything I could”, and as a result, they experience success every day, from which they renew their energy. For them, health means harmony, and they require credible information, online services and high quality health care.

For 'health trendies' supported by moderately strong personal relationships, health is mostly a fashion, and the most important thing for them is to follow trends belonging to some community pursuing any kind of natural. This is most often found in some sporting activity where they can experience the feeling of getting the best out of themselves. In addition to their strong health awareness, they are resistant to health care, at best they have only resentments, therefore they hardly go to the doctor and screening, they avoid taking any medication. These two groups make up 40% of the Hungarian population and can be considered as 'health promoters' (Lantos 2014a).

There are one and a half times more 'health abrasives' who are divided into two groups of almost equal size. One group is made up of „procrastinators” who know, but don't do, know the risk factors and also know what they should do for a healthier life. But for the most part, they just talk about it because their energy levels are no longer enough to take action, and their social network is weaker than average. They visit doctors for screenings, but doctors characterize them as undisciplined patients because their adherence to therapy undulates greatly. In this group, I know and I do are separated the sharpest, which often turns into „I know, but I find a reason to do the opposite”. They can live healthier lives if the social environment facilitates their efforts.

The 'absentees' who form the other group of health abrasives are completely passive in terms of maintaining their health. Due to the lack of supportive social background, they are characterized by learned inertness, they grow into it from

their childhood with the experience of whatever they do has no effect on their own lot. Therefore, they are completely passive in terms of their health, they expect a complete solution from someone else, typically health care. At the same time, they are deeply anxious that they will have something wrong, but in addition to learned inertness, health messages that encourage action tend to breed anger and resistance. With strong personal support, they are able to do for their health. From pilot programs implemented a few years ago, for example, a Romany health guard, a health counsellor working in community care, or a care manager cooperating with the social care can help participate in health programs. According to surveys, if such a person manages to overcome strong mental barriers with effective support and does it for her health, a sense of liberation will appear.

This fourfold division of health behaviours and the gradient in health maintenance activity depending on the strength of the social network are also well demonstrated in terms of participation in medical screenings, and are more related to the strength of health self-management than to the frequency and willingness to see a doctor. Participation in health screening is more about maintaining health, and much less about avoiding diseases (Lantos 2014b).

The best example of the impact of supporting communities on health is the so-called Frome model (Abel 2018), where the health status of a municipality has been improved through social innovation. A network of compassionate communities has been created, which has significantly reduced the incidence of health emergencies in the population characterized by emergency care. While the number of emergency patient admissions in Somerset County increased by 30%, in the town of Frome on the eastern border of the county, it fell by 15% in the four years since the establishment of benevolent communities:

- Individuals receive care and contact, love and cheer through easy access and constant presence of a support network of family, friends and neighbours.
- By organizing and coordinating voluntary activities, easily accessible networks are built for the daily tasks of life, administration, shopping, cooking, cleaning, gardening and pet care.
- They actively recruit and encourage participation in various community activities (choir, walking group, board game club, coffee shop conversation, etc.) where people can make friends and share current events in their lives.

Together, compassionate communities help alleviate isolation and loneliness and provide a sense of belonging in an increasingly fragmented society.

Social innovation can gradually develop and participate in the implementation of networked social and institutional co-operation, which is primarily related to health, to the community and to the family and to new ways of cooperation, and to social responsibility, sustainability, participation and volunteering in line with regional and local specificities, it promotes the successful achievement of social innovation objectives at various levels, which have now become essential.

2. Data age

In terms of the challenges facing healthcare, the impact of the digital transformation and the new industrial revolution is exacerbated by the fact that technology for health is also revolutionary. Today, we can no longer think only in health care, we must examine and shape the health ecosystem that affects our entire lives. More and more professionals are seeing the need for fewer large hospitals in the near future, rather than many diagnostic and counselling centres (Atun 2015). New occupations and functions are also emerging in health care and health preservation, which will also require new real and virtual spaces.

One of the most important consequences of the digital transformation and the digital footprints that follow is that a whole new resource has been created, data that is, moreover, renewable, as one of all our current resources. The new world of health maintenance and healthcare, supported by digital technology, paves the way for the data that is available to us, but not systematized and not well collected. We are at the very beginning of this process in all parts of the world, so rapid introduction of integrated and individual-centred, health-journey-based analysis of data not just able to establish a sustainable human-centred health ecosystem, rather provides significant innovation potential for the health industry. At the same time, the data is becoming more and more widely available to everyone, and as a result, it is primarily international market players who are increasingly active in carrying out analyses. Therefore, it is now the case that a country, a government, either takes over the largest range of integrated analyses in support of health or is marginalized within three to five years.

With this in mind, sustainable health can clearly be underpinned by a comprehensive analysis of individual patient pathways and health-life journey. So-called 360-degree data collection and analysis became necessary for (a) data on gene sequencing and biological markers, (b) data on treatment processes and outcomes in health care, (c) data on individual behaviour, and (d) data on our digital twin.

One of the most important new methods is to collect and analyse data on whole-life health journey. This lays the foundation for health preservation, prevention, rehabilitation, care and health management to reach the level needed to improve life expectancy and increase quality of life. Multidimensional and real-life data analysis, as well as predictive and prescriptive algorithms based on them, are becoming increasingly important, making capacity planning and resource allocation more accurate, preferably before diseases appear. We now have evidences of the usefulness of predictive algorithms for health, and as a result, all of our community spending will be increasingly utilized. According to a global analysis, the money invested in population health management programs already pays off sevenfold (Masters 2017).

There is a broad consensus that data collection and data analysis should be improved as a first step in improving the effectiveness of treatments that receive the most social attention. An organizational framework needs to be developed covering the complete health care system that allows for a high degree of compliance with professional expectations. Based on the experience of international and domestic pilot programs, this can be ensured by value-based health care organization (Alfano 2019, Lee 2020), which is also becoming more and more widespread in our professional thinking. It has been shown that it is worthwhile for a country to invest in infrastructure to support this, as recent relevant surveys suggest that adequate use of public data equity can increase gross domestic product (GDP) by between 0.1% and 1.5% (OECD 2019).

Treatment data should be made more widely available than is currently the case, so that those involved can access information with different content depending on their role. It should be emphasized that the importance of the confidentiality of individual data must be relegated to the public good, to improve efficiency and to develop health solutions. With the growing importance of data equity as our most important resource, this has emerged as a new social challenge that needs to be addressed across Europe. This requires the development of new social agreements and regulations related to the role of the e-Health Infrastructure (EESZT) and all related services in Hungary. If we do not allow the joint analysis of large amounts of individual detailed datasets, we will clearly give up the predictive knowledge that can be gained from them, and that we will be able to create and operate preventive, sustainable healthcare with them. At the individual level, the formula can be simplified to either I give access to my data with many of my millions of peers, resulting in a multitude of untreatable diseases that can be prevented ten years from now, or give up the ability to significantly prolong my health.

3. Pervasive Health

One of the most important goals of the significant transformation of the health ecosystem is to replace the previous medical doctor focus with a customer-centric approach. This can also be described as the democratization of the field, where the greatest power is no longer concentrated in the hands of the physician and the patient or customer goes beyond the role of a vulnerable subject in the healing process. This transformation has been significantly accelerated by advances in technology over the past few years. The widespread availability of mobile technology has given us continuous Internet communication, micro- and nanosensors have made it possible to continuously measure a number of physiological data by wearable devices, and the development of data management and computational algorithms paves the way for machine-to-machine communication and

artificial intelligence. Many elements of medical knowledge can now be carried in our pockets and we can make the necessary decisions ourselves to maintain our health.

Various technological solutions are widely used to measure health status more accurately, gain a deeper understanding of the causes behind health loss, and support health preservation and health recovery. One of the outstanding developments in the evolving and increasingly people-centred digital ecosystem is the design and operation of a personal health support system that continuously enhances people's everyday health and enables everyone to maintain an adequate level of their own health.

This future is already here, in many ways we live in it. The Internet of Things, robotics, 3D printing, wearable sensors and devices, cloud computing, complex data science analysis, self-learning and in-depth learning algorithms, real-time communication networks due to mobile communications, and virtual and augmented reality tools together allow health care to be with us at all hours of the day - and not just through expensive infrastructure-operated health care facilities, often with very limited access, but through our pockets, arms or glasses (Arnrich 2010).

The most important technological tool and business model for collecting and utilizing data assets is the platform available online. Building on these platforms, various digital health industry developments support people-centred collaboration in a health support network that serves individuals. Health promotion is one of the priority areas where technology is advancing at a rapid pace, with the results of the developments serving individuals in different areas and at different levels. With information and „training” on healthy living, suggestions are made about lifestyle, nutrition and exercise adapted to the state of health, which can become more and more personalized by collecting and analysing individual data. This is complemented by bot apps or targeted personal video chats. The transfer of up-to-date knowledge related to the use of a product or service is possible anywhere using web and mobile applications, with the aim of thorough and understandable preparation. These solutions can be used to make treatment more effective, for example, in connection with the use of a device or detailed information before a specialist clinic, hospital treatment, or retrieval of knowledge when discharge after medical treatment, for example by using a robotic assistant. Motivation for targeted activities - rehabilitation, lifestyle change - is becoming easier and easier to implement; the most common forms are mobile applications supplemented with playful solutions, which can be made even more efficient with virtual reality or augmented reality solutions.

With the increasing use of wearable devices, the operation of remote monitoring and surveillance systems is also changing. The use of telemetry devices can become part of everyday life, where, based on the measurements, the algorithms

suggest changes in the application parameters of the devices and drugs or the wearer's behaviour, or the service provider or relative is alerted in the event of a significant change in health. The day-to-day practice of screening and diagnostics is also changing as digital devices are able to deliver a variety of diagnostic methods from healthcare facilities to the patient's home. Home and body-worn gauges visualize life functions or power control algorithms. In addition, screenings of public health magnitude can be performed using online questionnaires or mobile applications, as the risk of many diseases can be well assessed using validated sets of questions.

4. Data and care

One of the most important questions in shaping our future is what solutions we can find to share our data in a way that enriches the public wealth and improves the lives of all of us. The digital transformation will radically transform our environment and, as a result, the framework of our lives, while a significant portion of our human values and the essence of our human being are not expected to change, as they have hardly changed for centuries. There are elements of human thinking and behaviour that are fairly well known to us, but there are also many areas about which we have far less definite knowledge, such as emotions and the decisions they make. Reconciling individual and community interests is typically a shared societal task that has been strengthened as a result of the digital transition and given new meaning to personal data. As more and more segments of our lives are followed by imprints of digital devices and digitally accompanied processes, the picture emerges more and more accurately, and our digital twin show us more and more faithfully, opening up new dimensions of self-knowledge. How much do I need to sleep to perform well physically and mentally? What foods and how much do I eat to keep my weight off in the winter and use it as little as possible in the meantime? By analysing large databases of long data sets for many people, we can provide increasingly accurate individual answers to these and other similar questions. Already if we are willing to share our data, open up the private sector for the development of the public sector, which then again supports individual well-being. And here comes the huge question of exactly with whom and which data I can share securely.

The utilization of the data-driven public good in medicine is most strongly demonstrated in the treatment and prevention of cancer. We can process more and more and more diverse data in a short time with complex data science methods, as a result of which we get much more detailed knowledge about our intervention targets than before. In the light of the results of the last decade, some countries have already set themselves the goal of achieving no deaths from cancer by 2050 (Gill, 2015).

This may seem unbelievable today, but in three areas, technology and thus everyday healthcare solutions are advancing rapidly. We have increasingly accurate diagnostic procedures at the level of molecules and genes within our cells, and knowing these, we can determine treatment targets more precisely than ever before. The treatments themselves are becoming more precise, with a wide range of targeted treatments becoming possible to the point where experts anticipate access to fully personalized therapies for single-element treatment target groups in the near future. In addition, behaviour-based, personalized prevention solutions enable lifestyle treatments that are increasingly likely to show everyday individual solutions to healthy living - nutrition, exercise, sleep, stress avoidance, mental health. The continuously improving digital technology enable us to provide a virtual health assistant that supports behaviour change, similar to a health counsellor. The potential of a personalized health counselling was demonstrated in an experimental care design setting involving $n = 5.848$ healthy individuals, of whom $n = 2.476$ were coached by individual health counsellors in 20 areas nationwide, with a total of 227 General Practitioners and 105 health counsellors.

Nearly half (49%) of individuals who completed a personalized health planning session made a change according to their short term health goals, and there were geographic regions where this proportion reached as much as 93%. Changes achieved were mean weight loss of 3kg, reduced risk of anxiety and depression according to the risk assessment scales used. Changes in lifestyle and activity levels included more frequent exercise and physical activity, quitting smoking, changes in meals, changes in daily schedules, and participation in health screening.

Digital transformation together with the community health experience model combining the value based health care concept and the community care design provides a sound basis for automized personalization of continuous support needed for efficient health maintenance that is the key for a healthier society and a sustainable health care.

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Innovations in Marketing Research: A Pedagogical Perspective

Naresh K. MALHOTRA

Abstract

Given Professor Judit Simon's translation of my marketing research textbook in to the Hungarian language, I thought is fitting to focus on the pedagogical innovations in marketing research. I focus on innovations in four major areas: International Marketing Research, Marketing Research and Social Media, Mobile Marketing Research, and Ethics in Marketing Research.

Keywords: Innovations, marketing Research, International, Social Media, Mobile, Ethics

1. Introduction

I have had the privilege of working with Professor Judit Simon for the last several years. She has translated my graduate Marketing Research book in to the Hungarian language. It is a special pleasure to write this paper for the „Festschrift” in honor of her seventieth birthday. Given her translation of my marketing research textbook, I thought is fitting to focus on the pedagogical innovations in marketing research. I focus on innovations in four major areas: International Marketing Research, Marketing Research and Social Media, Mobile Marketing Research, and Ethics in Marketing Research.

2. International Marketing Research

The United States accounts for only about 40 percent of the marketing research expenditures worldwide. About 40 percent of all marketing research is conducted in Western Europe and about 10 percent in Japan. Most of the research in Europe is done in the United Kingdom, Germany, France, Italy, and Spain. Japan is the clear leader in the Asia-Pacific region, followed by Australia, China, Korea, and Taiwan. Brazil and Mexico lead the Central and South American markets in terms of marketing research expenditures.¹ With the globalization of markets,

marketing research has assumed a truly international character and this trend is likely to continue. Several U.S. firms conduct international marketing research, including Nielsen, IMS Health, IRI, and comScore. Foreign-based firms include Kantar (UK), Ipsos (France) and GfK, (Germany).

Generally, the following terms are used interchangeably: international marketing research (research for truly international products), foreign research (research carried out in a country other than the country of the research-commissioning organization), or multinational research (research conducted in all or all important countries where the company is represented). All such research is much more complex than domestic marketing research. All research of this kind, including cross-cultural research, will be discussed under the broad rubric of international marketing research. The environment prevailing in the countries, cultural units, or international markets that are being researched influences the way the six steps of the marketing research process should be performed.

Globalization of companies is the trend of today. Whether going online or setting up physical operations in a foreign country, research must be conducted so that relevant environmental factors are taken into consideration when going global. Many companies have faced global disaster because they did not take into account the differences between their country and the country with which they wished to do business.

Companies that are basing their business on the Web can run into problems. Many times the content on the Web page may be interpreted in a way that was unintended, such as in the case of a car manufacturer in Mexico. The Web page showed a hiker standing next to a car. In Mexico, hikers are poor people and they do not own cars. You also want local content to accommodate multiple languages in areas such as India, where one region may have up to 20 different languages. Companies must consider these environmental factors in order to gain sales and customers in other countries.

Despite the complexity involved, international marketing research is expected to grow at a faster rate than domestic research. A major contributing factor is that markets for many products in the United States and other developed western countries are approaching saturation. In contrast, the markets for these products in other countries are in the early stages of development, and marketing research can play a crucial role in penetrating the market, as illustrated by the success of McDonald's in India. In markets across the globe, McDonald's respects local cultures and has adopted its menu and dining experience to local preferences. Marketing research showed that, in India, food consumption was influenced by people's religious beliefs. Accordingly, McDonald has dropped beef and pork from its menus, conforming to the religious beliefs of Hindus

and Muslims, who make up most of India's population. Instead, it has numerous vegetarian versions of some of its American classics, like the McVeggie burger and McSpicy Paneer, as well as chicken offerings. On the value menu, the McAloo Tikki burger, made from a potato-based patty, is a top seller, accounting for as much as 25 percent of the restaurants' total sales in India. Marketing research also revealed that vegetarians in India are strict in observing food habits and practices. Therefore, McDonald's kitchens in this country are divided into separate sections for cooking vegetarian and nonvegetarian food. It has rolled out a new breakfast menu in India, featuring local favorites „Masala Dosa Brioche” and „Masala Scrambled Eggs” alongside more familiar fare such as waffles, hot-cakes and hash browns.²

3. Marketing Research and Social Media

Social media embody social computing tools commonly referred to Web 2.0. These are web applications that facilitate interactive information sharing, user-centered design, and collaboration on the World Wide Web. Examples of social media include social-networking sites (e.g., Facebook), video sharing (e.g., YouTube), photo sharing (e.g., Flickr), music sharing (e.g., Last FM), bookmarking (e.g., Delicious), voice networking (e.g., Skype), wikis (e.g., Wikipedia), product and service reviews (e.g., TripAdvisor), virtual worlds (e.g., Second Life), multi-player games (e.g., Farmville), web-based communities (e.g., Homeschool.com), blogs (e.g., Direct2Dell), and microblogs (e.g., Twitter). A Web 2.0 site allows its users to interact with other users or to change website content, in contrast to non-interactive websites where users are limited to the passive viewing of information that is provided to them. Good social media networks use all the tools available to them: discussion, chat, webcast, photo, video, podcasts, animation, surveys, games, and virtual worlds. People interact in different ways and so it is desirable to give them as many tools as feasible. Moreover, the cost of providing all these tools has become reasonable.

All social media share certain common characteristics that make them very relevant as a domain for conducting marketing research. Social media are marked by user-generated content that is blurring the distinction between professional and amateur content. Key social interactions develop around the user generated content. Users are able to rate, rank, comment on, review and respond to the new world of media, a factor that is driving the success of social media. People form online communities by combining one-to-one (e.g. email and instant messaging), one-to-many (web pages and blogs) and many-to-many (wikis) communication modes.

Marketing researchers can make use of these new social networks, and the open source social computing tools from which they are built, to extend the boundaries of research offerings. These social communities open up new avenues for understanding, explaining, influencing and predicting the behaviors of consumers in the marketplace. Thus, they can be used in a variety of marketing research applications including segmentation, idea generation, concept testing, product development, brand launches, pricing, and integrated marketing communications.

Social media are not without limitations. While the standard for objectivity is high for journalists, expectations about objectivity among bloggers and other social media users are lower. Social media users may not be representative of the target population in many marketing research applications. Social media as a source of samples suffers from at least two biases: first from self-selection in that the respondents can self-select themselves into the sample and second from advocacy. Yet, as long as these limitations are understood, insights from social media analysis can uncover useful information that can inform marketing decisions. We advocate the use of social media as an additional domain in which to conduct marketing research to supplement and complement, but not to replace, the traditional ways in which research is conducted.

A handful of marketing research firms have emerged that specialize in social media conversation mining services. They listen in on online conversations, report on activity, and assess influence. These services charge from a few hundred to a few thousand dollars per month and differ in the features they offer. Here, we illustrate how one firm, namely Starbucks, is using social media to obtain information and connect with consumers in the target market.

Starbucks has a blog, My Starbucks Idea (MSI) (mystarbucksidea.force.com), where it not only connects with customers but also co-creates the company's future with them. Customers can share ideas, vote on ideas others have suggested, discuss ideas with other customers, and view the ideas Starbucks has announced. Starbucks's Idea Partners from different departments within the company take part in answering queries and providing insights to discussions. Starbucks can then get ideas and feedback on how to improve its products to satisfy the needs of customers. The brand takes suggestions posted on the site seriously and publishes implemented suggestions for all to see. It encourages feedback from customers by providing online incentives in the form of virtual vouchers or purchase points. This enables the brand to interact with its loyal customers. Starbucks also includes qualitative and quantitative types of survey questions in the form of polls along the sidelines of the blog to solicit marketing research data. My Starbucks Idea has a significant impact: On average, one in

three suggestions is implemented. All suggestions are acknowledged and commented on within an hour of uploading; an average of four suggestions is made every hour.

Starbucks's Facebook page (www.facebook.com/starbucks) has more than 36 million fans, and the number is still growing. It uses this site to promote new products and gain the feedback of customers. It also organizes events and uses Facebook's technology to invite customers to attend its events. It has a collection of photos from its products and events, among many others uploaded by fans. Starbucks updates its Facebook page approximately once every two days, and every update sees thousands of users responding to it. The company actively comments on or replies to its followers' posts or photo tags of them, increasing its presence on social media. Starbucks also uses its Facebook page to develop a target market's profile.

Starbucks also uses Twitter (www.twitter.com/starbucks) to promote products and connect with customers. The firm uses Twitter to update customers about new products and services with short messages. Tools like retweets allow users to spread messages originally Tweeted by Starbucks to others. Starbucks's Twitter account often directs followers to MSI for polls, surveys, or opinions casting.

Starbucks also uses many other forms of social media. An example of how social media have helped Starbucks improve its service is the recurring requests for free wireless and the final move made by Starbucks to offer free unlimited wireless to all its customers. Likewise, several members of the MSI community posted ideas requesting that fresh fruit be served at Starbucks. In response, Starbucks began producing a new drink with a fruity touch, alongside its new iced coffee beverage, to help beat the summer heat. From the tropics of the Bahamas to the Forbidden City in Beijing, social media have helped Starbucks serve its corporate logo alongside freshly brewed coffees in meeting the needs of customers. As of 2021, the brand is represented in more than 78 countries and continues to grow.³

4. Mobile Marketing Research

By mobile marketing research (MMR) we mean marketing research, such as a survey, that is conducted or administered to potential respondents on their mobile devices. The rapid development and increasing use of mobile devices such as smart phones, phablets, tablets and the internet of things (IoT) is creating great opportunities for marketing research. With mobile claiming eight of every 10 minutes people spend on social media, MMR holds great promise. The mobile user base is huge and is only expected to continue growing. In the U.S., nearly 60 percent of the people use their cellphones as their primary means of communication. Glob-

ally, there are over 2 billion smart phone users, and they spend the majority of their time in apps. Mobile internet usage has eclipsed desktop. MMR can be conducted via the international survey platforms such as Conconfirm (www.conconfirm.com), through the mobile services of access panels such as Dynata (www.dynata.com/), or through a specialist provider such as MobileMeasure (http://mobile-measure.com/?page_id=188&lang=en), or SMG (www.smg.com/).

There are many advantages to conducting marketing research by reaching consumers via their mobile device. Mobile marketing research can execute the principles of traditional research with reach, scale, and affordability. MMR has the potential to reach a broader audience, get results faster, lower costs, and elicit higher quality responses. Respondents can answer at their convenience. They are more engaged since surveys are shorter and the interface is easier to use. Global Positioning System (GPS) and other location technologies can deliver surveys to the target audience based on their current or past locations. Thus, feedback can be obtained from shoppers while they are inside the stores (or at other moments of discovery), minimizing the time between experience and feedback and improving the quality of responses. MMR is appealing in many developing economies, where the mobile phone is often the most frequently used information gathering, computing and communication device for consumers and businesses.

MMR also has several disadvantages. Surveys must be kept short, succinct and simple. The norm is to ask no more than 15 questions and the entire process to take less than 15 minutes, with some advocating surveys of less than three minutes. Many surveys are mobile-unfriendly and not suitable for distribution or viewing on mobile devices. There can be issues with the survey design itself, and the ability to keep the respondent engaged on the mobile screen. The questions that can be asked are definitely more limited than those suitable on web site accessed by PC or other modes of survey administration. Another serious limitation is the use of video in mobile research due to bad streaming and rendering. Sample representativeness may be another serious issue. In surveys aimed at the general population, those people who do not own a mobile phone or device cannot become part of the sample. MMR is also faced with other difficulties. On one hand, there are high costs for incentives and an intensive recruitment of respondents. On the other hand, the respondents have to pay the costs for the internet usage via mobile phone or device. Additionally, there are also technical difficulties that may occur, such as incompatible software and the low transmission rate of data. Restrictions concerning the revealing and passing on of mobile phone numbers (because of data protection and the lack of anonymity) are limiting the use of MMR. However, most of these limitations have lessened due to advances in technology and more and more people using mobile phones. Our perspective is that

MMR is unlikely to replace traditional marketing research methods but in many projects could be used to complement and enhance the findings obtained by the traditional techniques. We illustrate how Mobile Platform Helps L'Oréal Launch New Product.

L'Oréal was introducing a new product formulation in a unique packaging and wanted to know how well the consumers understood its use and application. MobileMeasure (<http://mobile-measure.com>) used their mobile survey platform to collect information on consumers' behavior in the privacy of their homes over a period of four days. Media recording of actual product usage by consumers and other data were obtained in a non-invasive manner. As part of the mobile survey, respondents were required to upload photos and videos capturing their use of the new product. Respondents were also required to make diary entries during the product placement period. L'Oréal was able to see real usage by consumers of their products and get feedback in the consumers' own words. The company obtained rich qualitative feedback in addition to the quantitative survey findings. Based on the results of this study, L'Oréal was able to successfully launch the new product.⁴

5. Ethics in Marketing Research

Several aspects of marketing research have strong ethical implications. Marketing research is generally conducted by commercial (i.e., for-profit) firms that are either independent research organizations (external suppliers) or departments within corporations (internal suppliers). Most marketing research is conducted for clients representing commercial firms. The profit motive may occasionally cause researchers or clients to compromise the objectivity or professionalism associated with the marketing research process.

Marketing research has often been described as having four stakeholders: (1) the marketing researcher, (2) the client, (3) the respondent, and (4) the public. These stakeholders have certain responsibilities to one another and to the research project. Ethical issues arise when the interests of these stakeholders are in conflict and when one or more of the stakeholders are lacking in their responsibilities.⁵ For example, if the researcher does not follow appropriate marketing research procedures, or if the client misrepresents the findings in the company's advertising, ethical norms are violated. Ethical issues can arise at each step of the marketing research process. Ethical issues are best resolved by the stakeholders behaving honorably. Codes of conduct, such as the American Marketing Association code of ethics, are available to guide behavior and help resolve ethical dilemmas. We give the URLs of important marketing research associations, and you are encouraged to review their codes of conduct.

Marketing Research Associations Online

Associations in USA

AAPOR: American Association for Public Opinion Research (www.aapor.org)

AMA: American Marketing Association (www.ama.org)

ARF: The Advertising Research Foundation (thearf.org)

IA: Insights Association (<http://insights.marketingresearch.org/>)

MMRA: Mobile Marketing Research Association (www.mmra-global.org)

QRCA: Qualitative Research Consultants Association (www.qrca.org)

International Associations

ESOMAR: European Society for Opinion and Marketing Research (www.esomar.org)

MRS: The Market Research Society (U.K.) (www.mrs.org.uk)

AMSRS: The Australian Market & Social Research Society (www.amsrs.com.au)

MRIA: The Marketing Research and Intelligence Association (Canada) (mria-arim.ca)

The Internet can be useful to marketing researchers in many ways. A variety of marketing research information related to the client company, its competitors, the industry, and relevant marketing, economic, governmental, and environmental information can be obtained by conducting a search using popular search engines (e.g., Google, www.google.com). KnowThis (www.knowthis.com) is a specialty search engine for a virtual marketing library. Important sources of marketing research information on the Internet include bulletin boards, newsgroups, and blogs. A newsgroup is an Internet site (e.g., <http://groups.google.com>) where people can read and post messages pertaining to a particular topic. Blogs or Web logs can be used to obtain information on a variety of topics and to recruit respondents for surveys. Although you can find blogs on most search engines, special engines such as Blog Search Engine (www.blogsearchengine.com) have been designed for blog searches.

The Internet has become a useful tool in the identification, collection, analysis, and dissemination of information related to marketing research. All the six steps of the marketing research process are facilitated by the use of the Internet.

6. Acknowledgement

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The history of Marketing research and market analysis course at the Corvinus University

Zsuzsanna KUN, Zombor BEREZVAI, Tamás GYULAVÁRI, Ildikó KEMÉNY

Abstract

The course offering changes frequently in Higher Education. Some of the subjects emerge and some of them disappear just in one semester, but some of the courses remain even for decades. Our paper investigates such a long-lifecycle course at the Corvinus University of Budapest. The history of 'Marketing research and market analysis' is demonstrated by descriptive data while the success of the course is unfolded by our qualitative analysis based on online questionnaires. Three different surveys containing open-ended questions were distributed for the three main stakeholder groups: students, company partners, and teachers. The uniqueness of our research is the whole lifetime approach since not only the current stakeholders but from the whole course lifetime were interviewed for the conclusions. Market Research Day as a professional meeting point for companies, students, and teachers is also introduced. Our main finding is that providing practical knowledge based on continuous cooperation among the three stakeholder parties is the key success for the 'Marketing research and market analysis' course.

Keywords: marketing research, Corvinus University, education

1. Introduction

The Corvinus University of Budapest offers a wide range of subjects connected to business and economics. For the Institute of Marketing, it is very important to give a deep knowledge to students majoring in marketing about the different marketing research methods. The main subject connected to quantitative marketing research methods was founded in 1991, and professor Judit Simon played the most important role in this process.

The aim of this study is to summarize the different aspects of the quantitative marketing research subjects. First, we will give a short definition and description of the marketing research, then the most important topics and statistics of

the subject will be presented. We will share some memories of former students and colleagues, who have been involved in teaching the subject during the last 20 years.

2. The Marketing research and market analysis course

The *Marketing research and market analysis* course is the main quantitative research course for the students majoring in marketing. The course leader – since the course exists – is professor Judit Simon. This is a compulsory subject for marketing master students, but it was also available for tourism-management master students or students majoring in teacher of economics, and since 2021 economic analysis master students could also choose this as a mandatory elective course. Before the Bologna system, in the so-called, undivided long-cycle business and economics program, the name of the subject was *Quantitative methods of marketing research*.

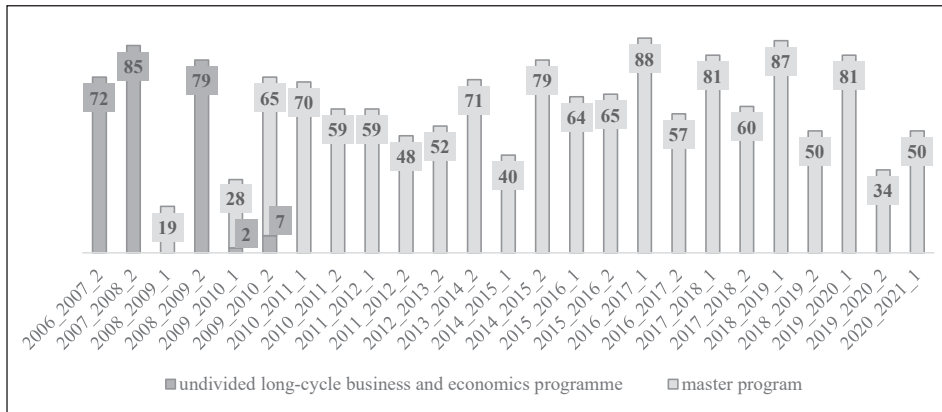
The *Marketing research and market analysis* course takes one semester. Students learn not only the theories of quantitative research, but they also study how to run the different analyses in SPSS, how to interpret and report the results. During the semester, the classical „classroom education” is completed with a real business project, which gives the opportunity to implement a real-world marketing research project. The business partners create research briefs based on a current and relevant problem and the students have to accomplish the whole process: the survey, the data collection, the analysis, and the report. The representatives of the business partner and the teachers of the course are the mentors during the research project. Thanks to this project at the end of the course the students have real experience from the field of marketing research.

During the semester five main methods are covered. The course starts with descriptive statistics and crosstabulation, followed by ANOVA and linear regression. The second part of the course is about the more complex analytical method: students learn how to reduce the dimensions of the used survey questions using the exploratory factor analysis, and how to create segments by the method of cluster analysis. The Marketing research book of Naresh K. Malhotra and Judit Simon (Malhotra – Simon, 2009) is used during the course to teach the most important theories and thanks to the tireless efforts of the colleagues involved in this course a new SPSS handbook has been published in 2021 as an e-book (Kemény et al., 2021).

Since 2006 an online student administration system, called Neptun is available at Corvinus University of Budapest, which makes it possible to have a short description of the Marketing research and market analysis course. Since the 2nd semester (spring semester) of the 2006/2007 academic year, 1552 students have attended

the course at the university. Most of them, 1307 students, studied the course as part of their Master program¹ (Figure 1).

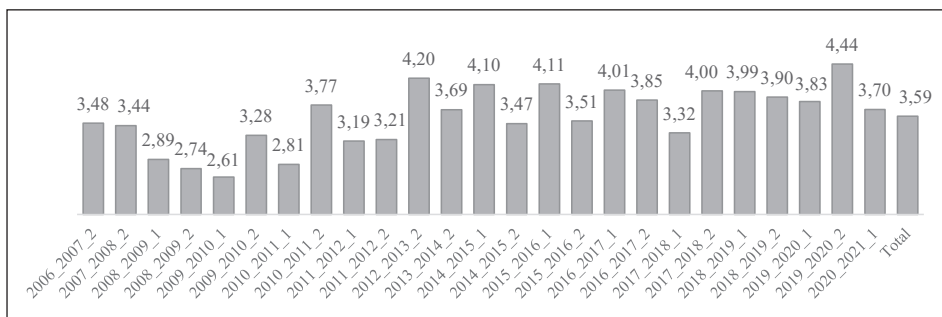
Figure 1: The number of students at Marketing research course per semester (N=1552 students)



Source: Based on Neptun reports

Figure 2 shows the mean values of the grades in the last 15 years. The average grade of the students from the Bologna system (mean: 3.68, st. dev: 1.20) is significantly higher than the same of the students learning in the earlier, undivided system (mean: 3.12, st. dev: 1.19) (F -value=46.95; sig=0.000). Other significant differences could not be observed.

Figure 2: Mean values of the grades (from 1 (failed) to 5 (excellent)).



Source: Based on Neptun reports

¹ Since 2008/2009/1 only the Bologna system exists at the University, and the course is available for master students. In the undivided long-cycle business and economics program the course was compulsory for students who majored in marketing in the 8th semester.

3. Student experiences based on Alumni research

An Alumni follow-up research was conducted to realize the impact of the course on the students' later professional careers. An online questionnaire was created and distributed. The questionnaire was built up by open-ended questions since we were more interested in the Alumni's opinion and personal experiences on the course and Professor Simon.

In our sample, the earliest Alumni has graduated in 2004 and the latest last year, so basically, this student evaluation chapter covers the past 15 years. The answers are thematically analysed and illustrated by quotations.

3.1. *The overall idea on course*

Alumni have evaluated the course as an extremely useful and practical one. Several of them have even pointed out that the course was their favourite during the university years.

'It was really one of the most interesting and useful courses during the university years.'

'It strengthens the logical thinking so it is helpful even for those who will not deal with market research in the future.'

'If I'm asked which course was worthwhile during my higher education years, I obviously choose this course.'

'... it was one of my favourites!'

3.2. *Four roles of course benefit*

It seems that the course was effective on the alumni in four different roles whether they have a role in the academy as a graduating student or a Ph.D. student or they have a business role as a marketing expert or a market researcher.

Last year student – prompt benefit of the course was expressed by several Alumni especially those, who have graduated in the past few years. In their experience, the course has provided them an advantage in thesis writing as the quantitative methodology was already available in their toolkit.

'My master thesis was based on the methodological know-how that I have gained in this course. Currently, I'm participating in a master program

in Western Europe and I use my Corvinus market research resources on a weekly basis. I've learned factor and cluster analysis and used them in several essays and management competitions. This course gave me the most practical and useful knowledge from the whole Corvinus master curriculum.'

Ph.D. student, later academic professional – the quantitative know-how was useful not only for master students but for those who have chosen academic career. The methodology was extremely useful for them during their Ph.D. years in case of publications and teaching experience as well.

'All of my scientific researches were based on SPSS. The seminars were very prompt but for me still, this is the reference level for university teaching. I've also received freelancer jobs based on my SPSS knowledge which I have developed already a lot.'

Figure 3: Four types of course benefit

	Marketing career	Academic/study career
User level	marketing professional	last year student (thesis writing)
Professional level	market researcher	PhD student, later academic professional

Source: researcher's classification based on survey data

Marketing professionals – most of the Alumni has become a marketing professional such as brand manager, marketing communication manager, social media manager, etc. In these roles, all of them have a benefit from the course-received research perspective.

*'The course was a huge advantage in understanding marketing research reports.'
'As a marketing professional, research and SPSS are not possible to avoid.'*

'It is useful for understanding any data/diagram/report.'

Market researcher: – several students have become market researchers or analysts. Some of them have made his or her decision in this profession due to the course.

‘Professor Simon has started my professional career as she oriented me to Hoffman Research where I’ve spent several years.’

‘I’ve been working in quantitative market research for 18 years. My knowledge and professional background were established by this course, my basis was always strong.’

‘Data analysis became extremely useful during my daily tasks. We work with a load of data, even if not with SPSS but data is continuously analyzed at my workplace. I’m still thankful today for this course for giving me the principles of data analysis.’

‘SPSS was used at my first two workplaces (Nielsen and Hoffmann). I’ve arrived with strong background, but then the next level has arrived, and syntax was used instead of menus.’

3.3. The role of Professor Simon

Alumni have provided insights into Professor Simon’s personality and role as a university teacher. The main comments were about her professional role in market research.

‘She was always up to date.’

‘Her professional background and enthusiasm were outstanding.’

According to public opinion, she is a cheerful and student-oriented person.

‘She is a correct and student-oriented teacher.’

‘She was always kind to us.’

‘I’ve always enjoyed her classes with a good atmosphere. Her merry mood, kindness, and helpfulness were always a crown on my day.’

4. Colleagues' opinion on course

Colleagues were also interviewed about their course experiences. During the decades, 14 teachers have participated in the teaching process. A short online, open-ended questionnaire was distributed for them as well.

Colleagues evaluate their teaching experience in the course since the course curriculum and the accountability were clear for teachers and students as well.

'The course material and the rules were consistent.'

The practical and lifelike content was an inspiring element for the teachers too. Giving professional knowledge to students which is ready-to-use seems to be a great experience.

'I've never thought that everybody will be a market researcher, but we teach students to think about the numbers, use them for arguments and interpret results. We teach them how to increase sales, based on numbers.'

'We give them a tool that is useful in several fields and evaluated by the job market.'

'As a student myself thought that this is the most beneficial course.'

Company projects are a great benefit for teachers as well.

'Student, company partner, and teacher work together to create the experience that is a companion for marketing experts'

'There was at least one project every semester where I was so impressed by the student's solution that I've realized that it has worth the effort to teach this curriculum.'

'Real market problems were managed, and the students were able to run their research and give new insights to the company accounts.'

Giving lectures in computer labs was a new challenge for some of the teachers.

'The first challenge was obviously the computer lab for me. It is not easy to follow 20-30 monitors at one time whether the students were able to follow the instructions. After a while, not even the monitors are needed for follow-up since the face of our students is a clear sign of the understanding.'

'It was challenging to keep the student's attention behind the screens.'

Teachers have listed several reasons why they feel proud of being part of this course.

'Being invited to teach in the course which was my favorite as a student.'

'I know some of our Alumni who still use SPSS on a daily basis for work.'

'Although the course is rather evaluated resource-needed by students, at the end of the semester the presentations mainly have very high quality.'

5. Cooperation with corporate partners

The practical aspect of the course, the so-called group project distinguishes this course from other methodological courses taught at the University. Four to five students have to form groups and select a corporate project offered by the partner companies of the Institute of Marketing. The goals and research questions of the projects are detailed in a research brief. Furthermore, students have the opportunity to meet corporate representatives as part of an oral brief to understand the business case and discuss potential questions. Equipped by these, the groups are required to put a questionnaire together, collect 150 to 200 responses and analyze the data using the methods mastered in class.

Figure 4: Students on oral brief at the Unilever company's site



source: photo by Zsuzsanna Kun

The project work has two-fold objectives. First, it should provide practical, on-the-field knowledge for students in the area of marketing research. They should experience that the methods they learned can be used to get relevant answers to current business challenges. A second – and equally important – goal is to help companies with current problems with a fresh mind.

Companies are carefully selected mainly from the fast-moving consumer goods (FMCG) segment. The goal is to have both multinationals and local small and medium-sized enterprises (SMEs) in the portfolio. In the past closely two and a half decades, more than 15 companies provided business projects as part of this course.

Multinationals are often lacking local knowledge that can be particularly precious in product localization and new product introduction. For example, Procter & Gamble, one of our partner companies for several years, indicated that the outcomes of the projects are regularly used as a reference point and inspiration for new product introduction. The presentation slides of the students – in this case, written in English – are not only used by local teams, but also by the regional headquarter. The same experiences were shared by Henkel, Spar, and Dr. Oetker. Sometimes the project outcomes are reassuring companies that they follow the right track as it was outlined by Cewe.

In the case of SMEs, the marketing research budget is often very limited. Our explicit purpose is to ease this burden. In some cases, the student project was the only research the company used in its marketing and product development decisions. It was not rare that students were invited to the headquarter of the companies to present the findings to the CEO of the company. That happened with Caola and Gelato Italiano in the past couple of years. Hence, in these cases, the projects are also having a local business development aspect and helping Hungarian companies to succeed in the marketplace.

Corporate partners indicated that they enjoyed (and several of them are also still enjoying) the cooperation not only with the students but also with the instructors of the course. However, another objective also emerged why companies relentlessly collaborate with the University: to help students gain practical experience and build a bridge between university students and marketing professionals.

Moreover, very positive feedback is that several corporate partners are alumni of Corvinus University and they also studied the same subject. Their positive attitude towards the course is clearly shown by the fact that they are happy and willing to provide student projects.

6. Market Research Day – PIKU Day

After the political and economic transition in the 90s in Hungary, huge array of market research companies started their operations and served their clients under a quite different market environment and conditions. At that time the management of research companies consisted of members graduated in different programmes with curriculum with high level methodological skills. They were typically sociologists, statisticians, or psychologists. However, modern marketing knowledge was relatively new for both research service providers and clients and colleagues graduated in marketing programmes were rare at research companies. The image of marketing graduates also reflected a kind of communication expert than ones who had research skills as well. Therefore, marketing students struggled to find jobs as a market researcher.

Having strong methodological and quantitative courses in the marketing Msc programme at Corvinus, to promote the research carrier of students, Professors Simon – along with Tamás Gyulavári – launched and established a new series of event for research companies and clients, which was called Market Research Day (in Hungarian: Piackutatás Napja or just PIKU NAP). It was just like a mini conference or a workshop, where both clients and market research companies presented the trends in the industry, meanwhile the best students also held presentations about their own research projects carried out in frame of marketing research courses. This provided opportunity for companies to realise the methodological skills of students and it generated increasing interest in marketing graduates. For instance, after the first event, for ~10% of marketing students at Corvinus was offered an internship by the participating companies.

The first event took place in May 2000. Thanks to the success of the first conference, the series continued for almost 15 years. The Hungarian Association of Market Researchers and ESOMAR were professional partners of the events.

The yearly conference always had a special hot topic, such as:

‘Big data and information quality

‘Measuring efficiency in marketing-communications’

‘Innovation in market research – market research for innovation?’

‘Feel – Do – Think: a new way of understanding consumers using Behavioural Economic’

The presentations were not only from the agencies’ side but also from the clients’ side. The best student company research projects also had the chance to introduce themselves at the conference for the expert audience.

Figure 5: Market Research Day – PIKU Day, 2011



source: <https://piackutatas.blog.hu/>

7. Conclusions

In this paper, an almost 30 years old course was examined from the three main stakeholders' perspectives. Students, company partners, and teachers have the common experience that this course provides practical and ready-to-use knowledge on quantitative analysis for (not only) marketing experts. This result proves that launching and constantly developing this course content worth the effort as it is supported now by all different viewpoints.

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Which equations? An inquiry into the equations in partial least squares structural equation modeling

Florian SCHUBERTH, Tobias MÜLLER, Jörg HENSELER

Abstract

Over the last decade, partial least squares structural equation modeling (PLS-SEM) has undergone various enhancements. However, the model equations underlying PLS-SEM have hardly been discussed in the PLS-SEM literature. Consequently, applied researchers are left unaware of the assumptions attached to these equations and risk unintentionally misspecifying their models. This chapter addresses this issue and reveals the model equations including the implicit assumptions underlying PLS-SEM.

Keywords: *Partial least squares structural equation modeling, composite model, reflective measurement model*

1. Introduction

Over the last four decades, partial least squares structural equation modeling (PLS-SEM, Hair et al., 2011; Wold, 1982) has been widely used as a research approach. It can be applied for different types of research, including exploratory, descriptive, explanatory, confirmatory, and predictive research (Henseler, 2018). To date, researchers apply it in various disciplines, such as information systems research (Benitez et al., 2020), marketing (Reinartz et al., 2009), tourism and hospitality research (Müller et al., 2018), operations management (Peng and Lai, 2012), family business research (Sarstedt et al., 2014b), human resource management (Ringle et al., 2020), and strategic management research (Hulland, 1999) – to only name a few.

In 2013 a number of scholars (in particular, Rönkkö and Evermann, 2013; Henseler et al., 2014; Robins, 2014; Sarstedt et al., 2014a; Rönkkö et al., 2016) initiated a fruitful scientific debate, which stimulated a series of enhancements to PLS-SEM. These enhancements include bootstrap-based tests to assess the overall

model fit (Dijkstra and Henseler, 2015a), the standardized root mean square residual (SRMR) as an index to assess the approximate model fit (Henseler et al., 2014), the heterotrait-monotrait (HTMT) ratio of correlations as a criterion to assess discriminant validity (Henseler et al., 2015), consistent partial least squares (PLSc) to consistently estimate common factor models (Dijkstra and Henseler, 2015b; Rademaker et al., 2019), a version of PLSc that is robust against outliers (robustPLSc, Schamberger et al., 2020), an extension of PLSc to deal with ordinal categorical observed variables (OrdPLSc, Schubert et al., 2018b), PLS-based confirmatory composite analysis (CCA) as a tool to analyze covarying emergent variables (Henseler and Schubert, 2020, 2021b), approaches to multigroup analysis (Klesel et al., 2019) and measurement invariance of composites (Henseler et al., 2016b), concretizations of how to analyze and report moderating effects (Fassott et al., 2016), PLSpredict to assess out-of-sample predictive performance (Shmueli et al., 2016), a cross-validated predictive ability test to compare predictive performance across models (Liengard et al., 2020), criteria for model selection (Sharma et al., 2018), frameworks that justify the use of PLS-SEM (Rigdon, 2012), and updated guidelines regarding the use of PLS-SEM for explanatory and predictive research (e.g., Henseler et al., 2016a; Benitez et al., 2020; Shmueli et al., 2019). For an overview of recent developments in PLS-SEM, the interested reader is referred to Khan et al. (2019), Evermann and Rönkkö (2021), and the recent textbook on composite-based structural equation modeling, Henseler (2021). To facilitate PLS-SEM's use, it has been implemented in various statistical software packages, including commercial software such as ADANCO (Henseler and Dijkstra, 2016), SmartPLS (Ringle et al., 2015), and WarpPLS (Kock, 2020), open-source packages such as cSEM (Rademaker and Schubert, 2020) and SEMinR (Ray et al., 2020), and extensions to other software packages such as Stata (Venturini and Mehmetoglu, 2019).

Although equations are a constitutive part of PLS-SEM (the „E” in PLS-SEM does not stand for „equation” without reason), publications with PLS-SEM as topic tend to neglect the model equations underlying PLS-SEM. This is of particular concern because an overwhelming part of PLS-SEM literature uses expressions known from structural equation modeling (SEM) with latent variables such as reflective and formative measurement (Bollen and Bauldry, 2011) that differ from the standard meaning assigned to them in the SEM literature (Rigdon, 2012). Additionally, through a graphical user interface software implementations of PLS-SEM such as ADANCO (Henseler and Dijkstra, 2016) and SmartPLS (Ringle et al., 2015) have greatly facilitated the use of PLS-SEM, to the extent that users can specify their models without knowing the underlying model equations and the implicitly made assumptions of PLS-SEM. Consequently, researchers applying PLS-SEM face the risk of unintentionally misspecifying their models and drawing wrong conclusions from their estimated models.

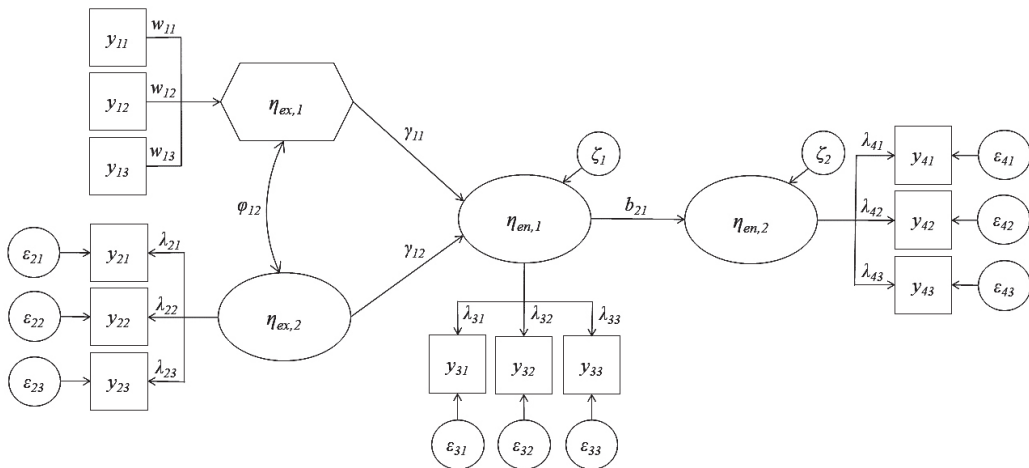
In this contribution, we respond a call put out in recent PLS-SEM literature (Evermann and Rönkkö, 2021) and present the model equations underlying PLS-SEM to prevent researchers from inadvertently misspecifying their models. Specifically, we highlight the assumptions implied by these equations and implicitly made in PLS-SEM. In addition, we show which PLSSSEM settings should be used for which model.

The remainder of this contribution is structured as follows. In Section 2, we present the model equations underlying PLS-SEM. Section 3 provides the necessary conditions for uniquely determining the model parameters. In Section 4, we explain how the model parameters are estimated in PLS-SEM and which setting should be used in PLS-SEM to obtain consistent estimates. Finally, we conclude the contribution in Section 5.

2. What are the model equations underlying PLS-SEM?

PLS-SEM actually entails two models: the inner model and the outer model. The inner model describes the relationships between the constructs. In contrast, the outer model specifies the relationships between the observed variables and the constructs, and it determines the type of construct, i.e., whether the construct is a latent variable or an emergent variable (Henseler, 2021). As is customary in PLS-SEM, in the following all observed variables and constructs are assumed to be standardized, i.e., they have a mean of zero and a unit variance. Figure 1 illustrates an example model that serves as a showcase in the remainder of the contribution.

Figure 1: An example partial least squares structural equation model



Predominantly, two types of outer models have been proposed in the literature: the reflective measurement model and the composite model.¹ In the reflective measurement model, the construct is expressed as a latent variable, and it is assumed that the observed variables y_i are manifestations of their underlying latent variable η_i . The so-called random measurement errors ε_i capture the variance in the observed variables that cannot be explained by the latent variable. The equation underlying the reflective measurement model is given in the following formula:

$$y_i = \lambda_i \eta_i + \varepsilon_i \quad (1)$$

where the vector λ_i contains the factor loadings. The reflective measurement model assumes that the random measurement errors ε_i are uncorrelated with the latent variable η_i . In addition, it is usually assumed that the random measurement errors are mutually uncorrelated and consequently, the latent variable η_i accounts fully for the covariances among its associated observed variables y_i .²

Whereas traditional PLS-SEM provides inconsistent estimates for reflective measurement models and hence should not be used under such circumstances (Rönkkö et al., 2016), PLSc overcomes this shortcoming and provides consistent estimates for reflective measurement models (Dijkstra and Henseler, 2015a,b). In its standard form, PLSc assumes that the observed variables' random measurement errors are uncorrelated. However, PLSc has recently been enhanced to allow for correlations between random measurement errors belonging to one reflective measurement model (Rademaker et al., 2019). To the best of our knowledge, this enhancement is only implemented in the open source R package cSEM (Rademaker and Schuberth, 2020). Further, in PLS-SEM it is assumed that each observed variable loads on one latent variable only, i.e., cross-loadings cannot be specified and estimated. Our example model given in Figure 1 shows the latent variables $\eta_{ex,2}$, $\eta_{en,1}$ and $\eta_{en,2}$ embedded in reflective measurement models, each of which consists of three observed variables. As is typically done, the latent variables are displayed by

¹ Besides the reflective measurement model and the composite model, the literature on SEM suggests a third type of outer model, the causal-formative measurement model (Diamantopoulos et al., 2008; Bollen and Diamantopoulos, 2017). Similar to the reflective measurement model, in the causal-formative measurement model the studied concept is represented by a latent variable. However, the relationship between the observed variables and the construct is reversed, i.e., the observed variables affect the latent variable. Since the causal-formative measurement model can be regarded as a special case of the reflective measurement model (Jarvis et al., 2003), we do not consider it in the following.

² In general, correlations between the random measurement errors can be taken into account in the reflective measurement model and the literature provides a number of cases in which the assumption of uncorrelated random measurement error should be relaxed (e.g., Gerbing and Anderson, 1984; Henseler and Chin, 2010; Brown, 2015).

ovals and the observed variables by rectangles. Similarly, the random measurement errors are displayed by smaller circles. However, it is noticed that most PLS-SEM software with graphical user interfaces do not display random measurement errors and thereby obfuscate the statistical model. The equations for the reflective measurement models of our example model are given in Equations 2 to 4 below.

$$\begin{pmatrix} y_{21} \\ y_{22} \\ y_{23} \end{pmatrix} = \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix} \eta_{ex,2} + \begin{pmatrix} \varepsilon_{21} \\ \varepsilon_{22} \\ \varepsilon_{23} \end{pmatrix} \quad (2)$$

$$\begin{pmatrix} y_{31} \\ y_{32} \\ y_{33} \end{pmatrix} = \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix} \eta_{en,1} + \begin{pmatrix} \varepsilon_{31} \\ \varepsilon_{32} \\ \varepsilon_{33} \end{pmatrix} \quad (3)$$

$$\begin{pmatrix} y_{41} \\ y_{42} \\ y_{43} \end{pmatrix} = \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix} \eta_{en,2} + \begin{pmatrix} \varepsilon_{41} \\ \varepsilon_{42} \\ \varepsilon_{43} \end{pmatrix} \quad (4)$$

In contrast, in the composite model the observed variables y_i are assumed to make up the construct η_i (Henseler and Schubert, 2021a). Since in the composite model, the construct emerges out of a linear combination of the observed variables, we refer to it as an emergent variable (e.g., Cole et al., 1993; Henseler and Schubert, 2020). Equation 5 displays the equation underlying the general composite model.

$$\eta_i = w'_i y_i \quad (5)$$

It is assumed that an observed variable contributes to one emergent variable only. Analogous to the reflective measurement model, the correlations between the emergent variable and its observed variables are dubbed composite loadings (cf., Schubert et al., 2018a): $\lambda'_i = \Sigma_{ii} w'_i$, where Σ_{ii} is the variance-covariance matrix of the observed variables belonging to the emergent variable η_i . Consequently, the composite loadings are not real model parameters, because they can be derived from the weights. Our example model in Figure 1 models the construct $\eta_{ex,1}$ as an emergent variable:

$$\eta_{ex,1} = (w_{11} \ w_{12} \ w_{13}) \begin{pmatrix} y_{11} \\ y_{12} \\ y_{13} \end{pmatrix} \quad (6)$$

To visually distinguish between emergent variables and latent variables, we recommend displaying them as hexagons (e.g., Grace and Bollen, 2008; Henseler, 2021).³

³ Some authors have used octagons (Cadogan and Lee, 2013; Evermann and Rönkkö, 2021).

In PLS-SEM, the inner model captures the relationships between the constructs. Since it represents a researcher's substantial theory, it tends to be the focus of interest. Equation 7 illustrates PLS-SEM's inner model.

$$\eta_{en} = \Gamma\eta_{ex} + B\eta_{en} + \zeta \quad (7)$$

The coefficient matrices Γ and B contain the parameters of the exogenous and endogenous constructs, respectively, of the inner model. The inner model aims at explaining the endogenous constructs η_{en} . In contrast, exogenous constructs η_{ex} remain unexplained. The latter are always allowed to correlate freely in PLS-SEM, i.e., no constraints can be imposed on the exogenous constructs' variance-covariance matrix. Hence, the correlations between exogenous constructs are typically omitted in PLS-SEM software. The disturbance terms ζ account for the variances in the dependent constructs that their independent constructs cannot explain. Moreover, they are assumed to be uncorrelated with the exogenous constructs, i.e., the constructs that the inner model does not explain. Note that typically, the disturbance terms of the inner model and the correlations between exogenous constructs are not displayed in PLS-SEM software.

In the current form of PLS-SEM, recursive and non-recursive inner models can be specified (Dijkstra and Henseler, 2015a; Benitez et al., 2016; Hult et al., 2018). In contrast to non-recursive inner models, the recursive inner models have no feedback loops between the constructs. Further, the disturbance terms ζ are assumed to be mutually uncorrelated. For simplicity, in the remainder, we focus on recursive inner models. The inner model equations for our example model are given as follows:

$$\begin{pmatrix} \eta_{en,1} \\ \eta_{en,2} \end{pmatrix} = \begin{pmatrix} \gamma_{11} & \gamma_{12} \\ 0 & 0 \end{pmatrix} \begin{pmatrix} \eta_{ex,1} \\ \eta_{ex,2} \end{pmatrix} + \begin{pmatrix} 0 & 0 \\ \beta_{21} & 0 \end{pmatrix} \begin{pmatrix} \eta_{en,1} \\ \eta_{en,2} \end{pmatrix} + \begin{pmatrix} \xi_1 \\ \xi_2 \end{pmatrix} \quad (8)$$

As Figure 1 shows, our example's inner model is recursive as it does not contain feedback loops and correlations between the disturbance terms.

3. Can the model parameters be uniquely determined?

Ensuring that the model parameters have a unique solution is an important task because otherwise, only questionable conclusions can be drawn from the estimated model parameters. In the literature this topic is discussed under the term *model identification*. In the context of SEM and PLS-SEM, model identification refers to the question whether the following equation can be uniquely solved regarding the model parameters:

$$\Sigma(\theta) = \Sigma, \quad (9)$$

where Σ is the population variance-covariance matrix of the observed variables and $\Sigma(\theta)$ is the model-implied counterpart. The latter depends on the model parameters θ and contains the covariances between the observed variables based on the model equations and their implied assumptions.

The shape of the observed variables' variance-covariance matrix implied by our example model as in Figure 1 is given in Equation 10.

$$\Sigma(\theta) = \begin{pmatrix} 1 & \textcircled{1} & \textcircled{2} & \textcircled{4} & \textcircled{5} & \textcircled{6} & \textcircled{13} & \textcircled{14} & \textcircled{15} & \textcircled{22} & \textcircled{23} & \textcircled{24} \\ & 1 & \textcircled{3} & \textcircled{7} & \textcircled{8} & \textcircled{9} & \textcircled{16} & \textcircled{17} & \textcircled{18} & \textcircled{25} & \textcircled{26} & \textcircled{27} \\ & & 1 & \textcircled{10} & \textcircled{11} & \textcircled{12} & \textcircled{19} & \textcircled{20} & \textcircled{21} & \textcircled{28} & \textcircled{29} & \textcircled{30} \\ & & & 1 & \textcircled{31} & \textcircled{32} & \textcircled{34} & \textcircled{35} & \textcircled{36} & \textcircled{43} & \textcircled{44} & \textcircled{45} \\ & & & & 1 & \textcircled{33} & \textcircled{37} & \textcircled{38} & \textcircled{39} & \textcircled{46} & \textcircled{47} & \textcircled{48} \\ & & & & & 1 & \textcircled{40} & \textcircled{41} & \textcircled{42} & \textcircled{49} & \textcircled{50} & \textcircled{51} \\ & & & & & & 1 & \textcircled{52} & \textcircled{53} & \textcircled{55} & \textcircled{56} & \textcircled{57} \\ & & & & & & & 1 & \textcircled{54} & \textcircled{58} & \textcircled{59} & \textcircled{60} \\ & & & & & & & & 1 & \textcircled{61} & \textcircled{62} & \textcircled{63} \\ & & & & & & & & & 1 & \textcircled{64} & \textcircled{65} \\ & & & & & & & & & & 1 & \textcircled{66} \\ & & & & & & & & & & & 1 \end{pmatrix} \quad (10)$$

The 66 entries are expressions that depend solely on the model parameters. To preserve clarity, we express the covariances involving observed variables belonging to the emergent variable (y_{11} , y_{12} and y_{13}) by means of composite loadings λ^c (see also Section 2). We acknowledge that in PLS-SEM, the composite weights are the real model parameters, not the composite loadings. However, composite weights can unambiguously be converted into composite loadings, and vice versa (Henseler, 2021). Applying Equation 9 to our example model denotes a system of 66 non-redundant equations. These equations can be expressed one by one or in the form of blocks, as follows:

$$\left. \begin{array}{l} \textcircled{1} \quad \sigma_{11,12} = \sigma_{11,12} \\ \textcircled{2} \quad \sigma_{11,13} = \sigma_{11,13} \\ \textcircled{3} \quad \sigma_{12,13} = \sigma_{12,13} \end{array} \right\} \begin{pmatrix} 1 & \sigma_{11,12} & \sigma_{11,13} \\ \sigma_{11,12} & 1 & \sigma_{12,13} \\ \sigma_{11,13} & \sigma_{12,13} & 1 \end{pmatrix} = \begin{pmatrix} 1 & \sigma_{11,12} & \sigma_{11,13} \\ \sigma_{11,12} & 1 & \sigma_{12,13} \\ \sigma_{11,13} & \sigma_{12,13} & 1 \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{4} \quad \lambda_{11}^c \lambda_{21} \phi_{12} = \sigma_{11,21} \\ \textcircled{5} \quad \lambda_{11}^c \lambda_{22} \phi_{12} = \sigma_{11,22} \\ \textcircled{6} \quad \lambda_{11}^c \lambda_{23} \phi_{12} = \sigma_{11,23} \\ \textcircled{7} \quad \lambda_{12}^c \lambda_{21} \phi_{12} = \sigma_{12,21} \\ \textcircled{8} \quad \lambda_{12}^c \lambda_{22} \phi_{12} = \sigma_{12,22} \\ \textcircled{9} \quad \lambda_{12}^c \lambda_{23} \phi_{12} = \sigma_{12,23} \\ \textcircled{10} \quad \lambda_{13}^c \lambda_{21} \phi_{12} = \sigma_{13,21} \\ \textcircled{11} \quad \lambda_{13}^c \lambda_{22} \phi_{12} = \sigma_{13,22} \\ \textcircled{12} \quad \lambda_{13}^c \lambda_{23} \phi_{12} = \sigma_{13,23} \end{array} \right\} \begin{pmatrix} \lambda_{11}^c \\ \lambda_{12}^c \\ \lambda_{13}^c \end{pmatrix} \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix}^T \phi_{12} = \begin{pmatrix} \sigma_{11,21} & \sigma_{11,22} & \sigma_{11,23} \\ \sigma_{12,21} & \sigma_{12,22} & \sigma_{12,23} \\ \sigma_{13,21} & \sigma_{13,22} & \sigma_{13,23} \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{13} \quad \lambda_{11}^c \lambda_{31} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,31} \\ \textcircled{14} \quad \lambda_{11}^c \lambda_{32} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,32} \\ \textcircled{15} \quad \lambda_{11}^c \lambda_{33} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,33} \\ \textcircled{16} \quad \lambda_{12}^c \lambda_{31} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,31} \\ \textcircled{17} \quad \lambda_{12}^c \lambda_{32} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,32} \\ \textcircled{18} \quad \lambda_{12}^c \lambda_{33} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,33} \\ \textcircled{19} \quad \lambda_{13}^c \lambda_{31} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,31} \\ \textcircled{20} \quad \lambda_{13}^c \lambda_{32} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,32} \\ \textcircled{21} \quad \lambda_{13}^c \lambda_{33} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,33} \end{array} \right\} \begin{pmatrix} \lambda_{11}^c \\ \lambda_{12}^c \\ \lambda_{13}^c \end{pmatrix} \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix}^T (\gamma_{11} + \gamma_{12} \phi_{12}) = \begin{pmatrix} \sigma_{11,31} & \sigma_{11,32} & \sigma_{11,33} \\ \sigma_{12,31} & \sigma_{12,32} & \sigma_{12,33} \\ \sigma_{13,31} & \sigma_{13,32} & \sigma_{13,33} \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{22} \quad \lambda_{11}^c \lambda_{41} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,41} \\ \textcircled{23} \quad \lambda_{11}^c \lambda_{42} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,42} \\ \textcircled{24} \quad \lambda_{11}^c \lambda_{43} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{11,43} \\ \textcircled{25} \quad \lambda_{12}^c \lambda_{41} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,41} \\ \textcircled{26} \quad \lambda_{12}^c \lambda_{42} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,42} \\ \textcircled{27} \quad \lambda_{12}^c \lambda_{43} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{12,43} \\ \textcircled{28} \quad \lambda_{13}^c \lambda_{41} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,41} \\ \textcircled{29} \quad \lambda_{13}^c \lambda_{42} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,42} \\ \textcircled{30} \quad \lambda_{13}^c \lambda_{43} b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \sigma_{13,43} \end{array} \right\} \begin{pmatrix} \lambda_{11}^c \\ \lambda_{12}^c \\ \lambda_{13}^c \end{pmatrix} \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix}^T b_{21} (\gamma_{11} + \gamma_{12} \phi_{12}) = \begin{pmatrix} \sigma_{11,41} & \sigma_{11,42} & \sigma_{11,43} \\ \sigma_{12,41} & \sigma_{12,42} & \sigma_{12,43} \\ \sigma_{13,41} & \sigma_{13,42} & \sigma_{13,43} \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{31} \lambda_{21}\lambda_{22} = \sigma_{21,22} \\ \textcircled{32} \lambda_{21}\lambda_{23} = \sigma_{21,23} \\ \textcircled{33} \lambda_{22}\lambda_{23} = \sigma_{22,23} \end{array} \right\} \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix} \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix}^T + \begin{pmatrix} 1-\lambda_{21}^2 & 0 & 0 \\ 0 & 1-\lambda_{22}^2 & 0 \\ 0 & 0 & 1-\lambda_{23}^2 \end{pmatrix} = \begin{pmatrix} 1 & \sigma_{21,22} & \sigma_{21,23} \\ \sigma_{21,22} & 1 & \sigma_{22,23} \\ \sigma_{21,23} & \sigma_{22,23} & 1 \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{34} \lambda_{21}\lambda_{31}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,31} \\ \textcircled{35} \lambda_{21}\lambda_{32}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,32} \\ \textcircled{36} \lambda_{21}\lambda_{33}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,33} \\ \textcircled{37} \lambda_{22}\lambda_{31}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,31} \\ \textcircled{38} \lambda_{22}\lambda_{32}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,32} \\ \textcircled{39} \lambda_{22}\lambda_{33}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,33} \\ \textcircled{40} \lambda_{23}\lambda_{31}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,31} \\ \textcircled{41} \lambda_{23}\lambda_{32}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,32} \\ \textcircled{42} \lambda_{23}\lambda_{33}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,33} \end{array} \right\} \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix}^T \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix} (\gamma_{11}\phi_{12} + \gamma_{12}) = \begin{pmatrix} \sigma_{21,31} & \sigma_{21,32} & \sigma_{21,33} \\ \sigma_{22,31} & \sigma_{22,32} & \sigma_{22,33} \\ \sigma_{23,31} & \sigma_{23,32} & \sigma_{23,33} \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{43} \lambda_{21}\lambda_{41}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,41} \\ \textcircled{44} \lambda_{21}\lambda_{42}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,42} \\ \textcircled{45} \lambda_{21}\lambda_{43}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{21,43} \\ \textcircled{46} \lambda_{22}\lambda_{41}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,41} \\ \textcircled{47} \lambda_{22}\lambda_{42}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,42} \\ \textcircled{48} \lambda_{22}\lambda_{43}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{22,43} \\ \textcircled{49} \lambda_{23}\lambda_{41}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,41} \\ \textcircled{50} \lambda_{23}\lambda_{42}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,42} \\ \textcircled{51} \lambda_{23}\lambda_{43}b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \sigma_{23,43} \end{array} \right\} \begin{pmatrix} \lambda_{21} \\ \lambda_{22} \\ \lambda_{23} \end{pmatrix} \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix}^T b_{21}(\gamma_{11}\phi_{12} + \gamma_{12}) = \begin{pmatrix} \sigma_{21,41} & \sigma_{21,42} & \sigma_{21,43} \\ \sigma_{22,41} & \sigma_{22,42} & \sigma_{22,43} \\ \sigma_{23,41} & \sigma_{23,42} & \sigma_{23,43} \end{pmatrix}$$

$$\left. \begin{array}{l} \textcircled{52} \lambda_{31}\lambda_{32} = \sigma_{31,32} \\ \textcircled{53} \lambda_{31}\lambda_{33} = \sigma_{31,33} \\ \textcircled{54} \lambda_{32}\lambda_{33} = \sigma_{32,33} \end{array} \right\} \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix} \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix}^T + \begin{pmatrix} 1-\lambda_{31}^2 & 0 & 0 \\ 0 & 1-\lambda_{32}^2 & 0 \\ 0 & 0 & 1-\lambda_{33}^2 \end{pmatrix} = \begin{pmatrix} 1 & \sigma_{31,32} & \sigma_{31,33} \\ \sigma_{31,32} & 1 & \sigma_{32,33} \\ \sigma_{31,33} & \sigma_{32,33} & 1 \end{pmatrix}$$

$$\begin{array}{l}
 \textcircled{55} \quad \lambda_{31}\lambda_{41}b_{21} = \sigma_{31,41} \\
 \textcircled{56} \quad \lambda_{31}\lambda_{42}b_{21} = \sigma_{31,42} \\
 \textcircled{57} \quad \lambda_{31}\lambda_{43}b_{21} = \sigma_{31,43} \\
 \textcircled{58} \quad \lambda_{32}\lambda_{41}b_{21} = \sigma_{32,41} \\
 \textcircled{59} \quad \lambda_{32}\lambda_{42}b_{21} = \sigma_{32,42} \\
 \textcircled{60} \quad \lambda_{32}\lambda_{43}b_{21} = \sigma_{32,43} \\
 \textcircled{61} \quad \lambda_{33}\lambda_{41}b_{21} = \sigma_{33,41} \\
 \textcircled{62} \quad \lambda_{33}\lambda_{42}b_{21} = \sigma_{33,42} \\
 \textcircled{63} \quad \lambda_{33}\lambda_{43}b_{21} = \sigma_{33,43}
 \end{array}
 \left. \vphantom{\begin{array}{l} \textcircled{55} \\ \textcircled{56} \\ \textcircled{57} \\ \textcircled{58} \\ \textcircled{59} \\ \textcircled{60} \\ \textcircled{61} \\ \textcircled{62} \\ \textcircled{63} \end{array}} \right\}
 \begin{pmatrix} \lambda_{31} \\ \lambda_{32} \\ \lambda_{33} \end{pmatrix}
 \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix}^T
 b_{21} =
 \begin{pmatrix} \sigma_{31,41} & \sigma_{31,42} & \sigma_{31,43} \\ \sigma_{32,41} & \sigma_{32,42} & \sigma_{32,43} \\ \sigma_{33,41} & \sigma_{33,42} & \sigma_{33,43} \end{pmatrix}$$

$$\begin{array}{l}
 \textcircled{64} \quad \lambda_{41}\lambda_{42} = \sigma_{41,42} \\
 \textcircled{65} \quad \lambda_{41}\lambda_{43} = \sigma_{41,43} \\
 \textcircled{66} \quad \lambda_{42}\lambda_{43} = \sigma_{42,43}
 \end{array}
 \left. \vphantom{\begin{array}{l} \textcircled{64} \\ \textcircled{65} \\ \textcircled{66} \end{array}} \right\}
 \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix}
 \begin{pmatrix} \lambda_{41} \\ \lambda_{42} \\ \lambda_{43} \end{pmatrix}^T
 +
 \begin{pmatrix} 1-\lambda_{41}^2 & 0 & 0 \\ 0 & 1-\lambda_{42}^2 & 0 \\ 0 & 0 & 1-\lambda_{43}^2 \end{pmatrix}
 =
 \begin{pmatrix} 1 & \sigma_{41,42} & \sigma_{41,43} \\ \sigma_{41,42} & 1 & \sigma_{42,43} \\ \sigma_{41,43} & \sigma_{42,43} & 1 \end{pmatrix}$$

This system of equations is a crucial cornerstone for various tasks, such as model estimation, model testing, and model identification. Covariance-based SEM determines the model parameters such that a certain discrepancy between $\Sigma(\theta)$ and S is minimized. The latter is the empirical variance-covariance matrix of the observed variables which is an estimate of the population variance-covariance matrix Σ . The same principle is exploited by efficient partial least squares (PLSe and PLSe2, Bentler and Huang, 2014). Additionally, Equation 9 constitutes the null hypothesis in overall model fit testing ($H_0: \Sigma(\theta)=\Sigma$, Dijkstra and Henseler, 2015a)

Equation 9 is also the central equation in the context of model identification. Although model identification gets attention in theoretical work on PLS-SEM (e.g., Dijkstra, 1985, 2017), PLS-SEM guidelines hardly discuss it (with the exception of the guidelines proposed by Benitez et al., 2020). This is surprising because model identification has the same importance in PLSSEM as in SEM and it is a necessary step to ensure that the model is identified before its parameters are estimated.

In general, three states of model identification can be distinguished: (i) underidentified, (ii) just-identified, and (iii) overidentified. A model counts as underidentified if there are several sets of parameters consistent with the model constraints, i.e., several sets of model parameters θ satisfy Equation 9. In general, the conclusions drawn from underidentified models can be no more than questionable. A model is labeled just-identified if the model parameters can be uniquely determined. Also, just-identified models show the same number of parameters as non-redundant elements in the observed variables' variance-covariance matrix. As a result, justidentified models perfectly fit the data. Finally, overidentified models show a unique solution for their parameters as well. However, they have

fewer model parameters than non-redundant elements in the variance-covariance matrix. This fact can be exploited in empirical studies for assessing the overall model fit.

Based on Equation 9, assessing whether a model is identified can be a cumbersome task. To ensure that the model is identified, we need to show that the model parameters can be uniquely determined from the systems of equations presented above. Fortunately, researchers have proposed helpful rules to determine whether their models are identified without solving Equation 9. Due to the assumptions implicit in PLS-SEM, such as no cross-loadings, no correlated random measurement errors, and each observed variable being connected to only one construct, model identification can be assessed quite easily. Particularly, the following conditions are necessary to ensure that the model is identified in PLS-SEM.⁴ First, each construct must be connected to at least one observed variable. Although second-order constructs, which are not directly connected to observed variables, can also be specified in PLS-SEM (e.g., Van Riel et al., 2017; Schuberth et al., 2020), in estimating models that contain such constructs, the model is either estimated in several steps or observed variables are attached to the second-order constructs as auxiliary variables to ensure model identification. Second, the scale of each construct must be fixed. In PLS-SEM the partial least squares (PLS) algorithm ensures that all constructs have a unit variance, and thus a fixed scale. Third, no construct is allowed to be isolated in the inner model. Finally, the inner model needs to be identified. Recursive models with uncorrelated disturbance terms are always identified (Bollen, 1989, p. 104).

Following the previously presented identification rule, we can posit that our example model in Figure 1 provides a unique solution for the parameters of the system of equations ((1) to (66)), i.e., the correlations between the observed variables belonging to an emergent variable, the correlation between the exogenous constructs, the weights, the factor loadings, and the coefficients of the inner model. Further, the example model shows 66 non-redundant elements in the variance-covariance matrix of the observed variables and 18 model parameters that are freely estimated:

- 3 correlations between the observed variables forming the emergent variable: $\sigma_{11,12}$, $\sigma_{11,13}$, and $\sigma_{12,13}$,
- 2 weights⁵: w_{11} and w_{12}

⁴ We ignore trivial regularity assumptions, such as weight and loading vectors consisting of zeros only.

⁵ Although the model contains three weights, in fact only two weights are estimated. One of the weights used to form an emergent variable can be derived from the other weights because of the scaling condition. For an elaboration, the interested reader is referred to Schuberth et al. (2018a).

- 9 factor loadings: λ_{21} , λ_{22} , λ_{23} , λ_{31} , λ_{32} , λ_{33} , λ_{41} , λ_{42} and λ_{43} ,
- 1 correlation between the exogenous constructs: ϕ_{12} , and
- 3 coefficients of the inner model: γ_{11} , γ_{12} and b_{21} .

Consequently, the model shows 48 (= 66–18) degrees of freedom and in principle its overall fit can be assessed.

4. How to estimate the model parameters of the equations?

In PLS-SEM the model parameters are estimated in two steps. In the first step, the PLS algorithm is applied to obtain weights to calculate construct scores. In the second step, these scores are used to estimate the remaining model parameters.

Considering the PLS algorithm, two implementations have been suggested, namely, Wold's (1985) implementation and Lohmöller's (1989) implementation. Although for Wold's (1985) implementation some desirable statistical properties, such as convergence, have been proven (Hanafi, 2007), most statistical softwares, such as ADANCO (Henseler and Dijkstra, 2016), SmartPLS (Ringle et al., 2015), and the open source R package cSEM (Rademaker and Schuberth, 2020) rely on Lohmöller's (1989) implementation because it allows for an efficient computation by means of matrix algebra.

To estimate the model parameters, the inner weighting scheme of the PLS algorithm needs to be chosen. The three main inner weighting schemes are the centroid, the factorial, and the path weighting scheme (Wold, 1982; Lohmöller, 1989). Essentially, all three inner weighting schemes yield the same results (Noonan and Wold, 1982). However, there are different recommendations regarding which inner weighting scheme to choose in the context of models containing second-order constructs (Becker et al., 2012; Schuberth et al., 2020). Differences in the convergence behavior are largely negligible (Henseler, 2010)

Besides the inner weighting scheme, for each construct a mode for calculating the weights needs to be chosen. The two dominant ways to determine weights for calculating construct scores in PLS-SEM, arguably, are Mode A and Mode B.⁶ In applying Mode A, the weights are calculated as correlations between the observed variables and the corresponding construct scores. In contrast, if Mode B is ap-

⁶ Besides Mode A and Mode B, the PLS-SEM literature proposes a third mode, namely, Mode C which is a combination of Modes A and B. However, in PLS-SEM, Mode C is hardly applied and therefore not discussed. Moreover, Dijkstra and Henseler (2011) proposed so-called best-fitting proper indices.

plied, the weights equal the estimated coefficients of an ordinary least squares (OLS) regression from the construct scores on the corresponding observed variables. For more details, the interested reader is referred to Dijkstra (1985).

In the PLS-SEM literature, Mode A and B are unfortunately often equated with reflective and formative measurement, respectively (e.g., Rigdon, 2012; Hair et al., 2017b). This causes an ambiguity that has already created confusion among scholars questioning PLS-SEM's suitability (e.g., Aguirre-Urreta and Marakas, 2014b; Rigdon et al., 2014; Aguirre-Urreta and Marakas, 2014a). Echoing critical voices about PLS-SEM (e.g., Rönkkö et al., 2016), we agree that this notation can be hazardous because both Mode A and Mode B produce inconsistent parameter estimates for latent variable models such as the reflective measurement and causal-formative measurement models (Dijkstra, 1985). This is explained by the fact that PLS-SEM's construct scores, regardless of whether Mode A or Mode B is applied, are 'only' measurement errorprone approximations of latent variables. Hence, the estimated parameters belonging to the latent variables suffer from the well known attenuation bias (Cohen et al., 2013).

To overcome this problem, PLSc was developed as an approach which takes the reliabilities of the construct scores into account during the estimation of these parameters. Originally, PLSc assumed that Mode A weights are used calculate construct scores (Dijkstra and Henseler, 2015a,b). However, a similar approach can be applied to construct scores obtained by Mode B weights (Dijkstra, 1985, Chap. 2). To conclude, if researchers want to estimate the parameters belonging to latent variables, the use of PLSc is highly recommended.

For observed variables of reflective measurement models, 'cross-loadings' are often 'estimated' and reported in PLS-SEM (see, e.g., Hair et al., 2017a). However, 'cross-loadings' are no model parameters in PLS-SEM. They are simply the correlations between an observed variable and the scores of a latent variable that is not directly connected to this observed variable. This is problematic in two ways. First, these 'cross-loadings' suffer from attenuation bias. Second, these 'cross-loadings' do not take into account the latent variable's effect on which the observed variable actually loads. Consequently, these 'cross-loadings' should be considered cautiously. As mentioned in Section 2, in PLS-SEM it is not possible to specify and estimate cross-loadings as is possible in SEM.

Considering composite models, we recommend to use Mode B because it provides consistent estimates (Dijkstra, 2017). However, in some instances, e.g., in cases of high multicollinearity among the observed variables forming the emergent variable, or if the goal is to achieve a high out-of-sample predictive performance, using Mode A can be justified (Rigdon, 2012; Henseler and Schubert, 2020). Addition-

ally, recently a second type of composite model has been proposed which Mode A can consistently estimate (Cho and Choi, 2020). However, future research still needs to demonstrate the value of this composite model for empirical research. Moreover, since this type of composite model is a special case of the composite model presented in this study, Mode B also produces consistent estimates.

Considering the inner model, the parameters of each equation are typically estimated by OLS in PLS-SEM. As is well known in the literature, OLS assumes that the disturbance term of an equation from the inner model is uncorrelated with the independent variables of the same equation; otherwise, OLS would produce inconsistent estimates (Wooldridge, 2012, Chap. 5). In empirical research, the disturbance term might be correlated with independent variables because relevant variables have not been taken into account in explaining the dependent variable. Researchers face a similar situation regarding models that contain feedback loops among the constructs. In such cases, to obtain consistent estimates, the OLS estimator can be replaced by the two-stage least squares estimator. However, this requires valid instruments (see e.g., Antonakis et al., 2010).

5. Conclusion

Many developments have enhanced PLS-SEM over the last decade, shaping it into a versatile approach for various types of research. However, literature that focuses on the model underlying PLS-SEM is scarce. In this chapter, we have addressed this issue, making the model equations explicit. Particularly, we have presented the general equations underlying the reflective measurement model, the composite model, and the inner model. Moreover, we revealed the assumptions implicitly made in PLS-SEM, such as that exogenous constructs are always allowed to freely correlate and that cross-loadings do not exist. Based on the equations and the implied assumptions, we highlighted the importance of model identification in PLS-SEM and presented the conditions necessary to ensure that the parameters can be uniquely determined. Finally, we discussed different settings for the PLS algorithm and emphasize that if the model contains latent variables the use of PLSc is highly recommended in PLS-SEM.

6. Acknowledgement

We offer this chapter in honor of professor Judit Simon, a scholarly collaborator and friend of the last author. Professor Simon is known for her important contributions to the marketing research domain particularly within Hungary and the B2B marketing community in Europe. Not only is Professor Simon deeply

devoted to the development of students, junior scholars, and her university; she has also shown special concern for the well-being of consumers (Neulinger and Simon, 2011), patients (Simon, 2013), customers (Kemény et al., 2016), business relationships (Mandják et al., 2012), and entire economies (Mandják and Simon, 2016). Professor Simon is an experienced user, scholarly teacher, and advocate of multivariate statistical techniques, one of which is PLS-SEM.

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Qualifying Quantification

Dóra HORVÁTH, Katalin ÁSVÁNYI, Máté BENCZE, Attila COSOVAN,
Tamás CSORDÁS, Julianna FALUDI, Balázs FEKETE,
Daniella Dominika GALLA, Zita KOMÁR, Éva MARKOS-KUJBUS,
Gábor MEGYERI, Márta MERKL, Ariel MITEV, Attila SIMAY, Ákos VARGA

Zero

Our article is about playing with numbers. A summary of 15 qualitative researchers' free associations on quantification. We played with the idea of what the word quantification implies out of our research contexts. We executed this with the completion of 3 incomplete sentences. Numbers are symbols. Numbers talk. Numbers are straightforward. Still, numbers can be used to control attention arbitrarily. Numbers are more than just numbers. We aim to entertain by giving nontrivial approaches to the phenomenon of quantification.

With our article we would like to express our tribute to Professor Dr. Judit Simon's outstanding commitment to quantitative research methods, who is an Honorary Doctor of the University of Passau, founder of CUB DSG Deutschsprachiger Studiengang and former director of the Institute of Marketing and Media for 8 years.

Keywords: quantification, 70, Judit Simon

1. One

We do not seek to describe the methodology in the classical established manner, but we do seek to show how 15 colleagues' thoughts converge.

This work is a verbalized flashmob (Bär, 2012) we created in the digital space. As a group of marketing scholars and designers we got together for a short period of time, left some digital footprint on a shared digital canvas, and then dispersed. As a consequence, our act lives on in the digital space.

This work is also an expression of a future intention for collaboration and reflection to Henseler & Guerreiro's (2020) collection on marketing and design intersections. As they state, „when marketing scholars reach out to design, they

touch design topics without really engaging in design". There are only a very few who „(dare to) present a new artefact and then demonstrate that it works. Yet more designer-type questions are not far removed from marketing research questions" (Henseler & Guerreiro, 2020:5). We are a group of scientists and artists who risk presenting new artefacts and reflecting on them from multidisciplinary perspectives.

Here we are

15 people, 15 brains, 30 eyes, 150 fingers;

45 minutes - more precisely 15 x 5 minutes we spent with recording our associations;

and the uncountable number of minutes we devoted to compiling our writing.

The empirical material (we cannot call it data) is made up of

45 free associations,

altogether 639 words (that is the original untranslated material)

which is the result of 4239 separate hits on our keyboards.

We demonstrate that these characters and words are more than the pure sum of themselves. This is a shared digital footprint of a 15-member-company that gathered for paying a playful tribute to numbers.

2. Two

Our act is describable as a projective research inquiry.

In order to trigger free associations about quantification out of our research context we used the qualitative projective research technique of incomplete sentences. Our goal was to respond spontaneously to a purposefully unstructured, uncertain, and ambiguous situation.

The more different ways the situation can be interpreted, the more respondents / participants express their own emotions, motivations, attitudes and values in their responses (i.e. Malhotra & Simon, 2009).

We share our „research results" – numbers-related-narratives - according to artistic approaches to research (i.e. Eisner 1985; Brown & Reid 1997). As a result, we

- use non-literal language and evocative statements,
- concentrate on meanings, as observed behaviour provides springboard to understanding,
- presuppose that generalization resides in the particular, i.e. broad, not statistically significant lessons can be learnt from unique cases,

- avoid standardisation as form and content interact – the meaning of content is determined by the form in which it is expressed,
- allow imaginative self-expressions,
- assume that the investigator is the principal research instrument, and our experiences are the major source of data.

Our ultimate aim is to create meaning and generate a shared moment of contemplation on research as we do it.

3. Numerous

„Existence equals to the value of a bound quantifiable variable” (quodlibet, 2016). Quantification does not simply determine amount, that is whether something is „little” or „much”.

When we ask ourselves the question of what we would quantify if it were possible, what we would express in quantifiable units, we get diverging answers. This assumption may imply small or big quantities that we wish to make countable or uncountable. We may even wonder about reverse mathematics (cf. Shore, 2010). Our answers reflect the ordinary layers of meanings of the word. Our associations also prove that we researchers can be capable of self-reflection on our profession and research practices. Furthermore, we look at the research methodologies available to us through the eyes of an outsider.

If you could, what would you most wish to quantify?

Countable



- My discretionary time
- Student reactions at my classes
- The behaviour of those who work together
- Acknowledgments in doctoral dissertations
- Moments of flow, which are just not quantifiable. But what is the question by the way ... do we want more or less of something?
- Love
- Love and kindness
- Human greed and ignorance
- The meaning of life
- The thoughts of my daughter
- The distance between heart and mind
- Silence. How long silence between words takes during our lives. Silence we don't say between two words.
- Nothing. It is right that not everything is quantifiable. I don't measure how much my children love or how much eternal youth would cost (if it were available).
- What is really important is usually not measurable: dreams, desires, feelings. I think this is right
- The deliquescent time

Uncountable

4. Numbers

We cannot escape numbers, they are part of our lives from the beginning of our lives. (Flegg, 1983).

Numbers are understandable.

Numbers have meanings.

Numbers have significance.

Numbers matter.

Numbers are symbols.

However, numbers can be used arbitrarily.

We are surrounded by mathematics and statistics. Vacuuming and window washing or knitting all involve maths.

Maths and music are in very close areas in the brain, maybe that's why music can help learning numbers and mathematical problems (Edelson & Johnson, 2003). In Bartók's music we can discover the Fibonacci Numbers and The Golden Mean. The use of the Fibonacci numerical series in Bartók's music appears as a basis for constructing a new musical universe (Bachmann & Bachmann, 1979: 73)

Although Bartók was familiar with the notions of the Golden Mean and the Fibonacci numbers, it is somewhat presumptuous to suppose that he took into account these mathematical formulations. It is „*highly probable that Bartók realized at some point that his music is a consequence of physical and mathematical laws.*” (Bachmann & Bachmann, 1979: 81). Bachmann & Bachmann suggested that knowledge of mathematical regularities can play an important role in musical studies. We may add math in other areas of life as well.

Maths is music; statistics is literature (Veaux & Velleman, 2008)

Reading the question of *what our favourite number was*, we also associate to music hits. In Hungarian, a number („szám”) can also be one piece of music, a hit („szám”), therefore associations with music also naturally came up in our quest to discover the meaning behind numbers („számok”).

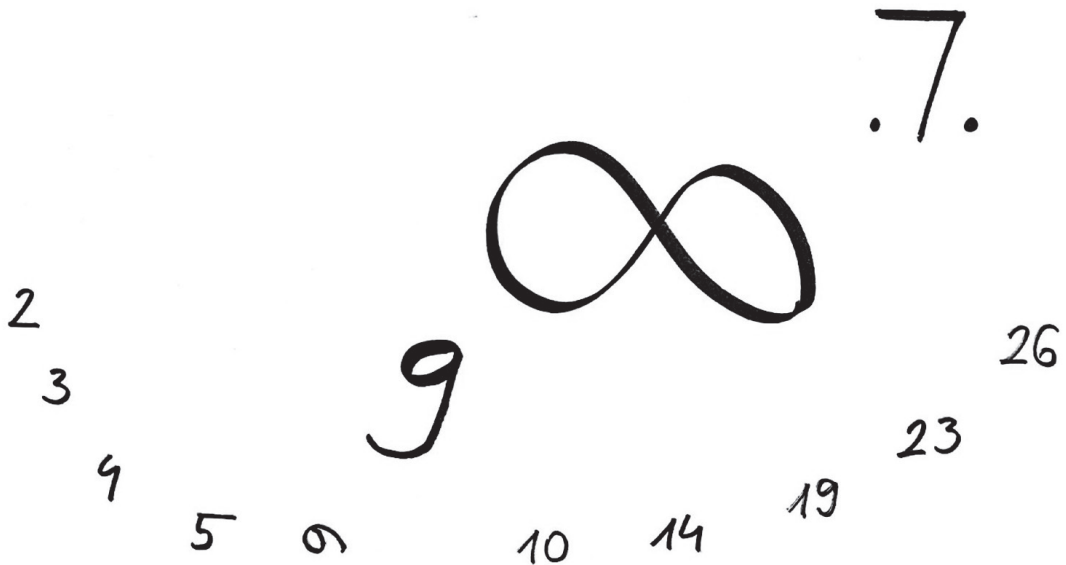
„*this is a valid number (hit song), as it is spring ...*”

Prince Buster: *You're wondering now*, because it's about making a decision when you're still looking back to see what you've left behind, but your foot is moving forward. <https://youtu.be/KwBCu4-6UuA>

I can't get no! from Rolling Stones <https://youtu.be/nrIPxlFzDi0>

According to my Spotify playlist it is Exsonvaldes & Helena Miquel's song *Cyclop* https://youtu.be/9SuGoxVGB_8

Spring from the band RMB as this is a valid number, as it is spring and because we can still describe it with letters and melodies ;) <https://youtu.be/mYbgOIPacq8>
Our favourite numbers are describable in numerals, too:



The size and line thickness of the above numerals reflect the number of mentions

As to why we mentioned one or the other as our favourite, our explanations were as follows:

- I. **2 and 9:** Since I was a kid, I don't remember why, I just felt like it.
- II. **3:** It's always featured in tales; I have three daughters.
- III. **4:** For me it is a kind of balance that describes the 4 dimensions of space and time, the 4 cardinal directions, the 4 seasons by which we live.
- IV. **5:** I don't know why.
- V. **Seven**, by the way. This is the most humane number. If I put a point in front and behind it, it shows a face seen from upside down: (.7.) This is very inspiring.
- VI. Numerically: **7.** It is prime and magical.

- VII. The laid down **eight**, as it is better than the stuffed **six**¹.
- VIII. **8**, as it is the symbol of infinity and fortune. It brings infinite fortune.

- IX. **8** laid down, as it never ends.

- X. **8**: (but I have more than one favourite). As a designer, I have dealt with it several times in a concrete and figurative sense ... our house in our street is at number 8 / it is infinity / it is a lemniscate, a Cassini oval / it is about restart / it's a cycle / meditation / etc.

- XI. No. **9**. This was my dad's and my jersey number during our respective basketball careers.

- XII. **10**: (10.10. is my birthday)

- XIII. **14**: (it is my birthday)

- XIV. I have more: **19** (anniversary), **23**, **26** (birthdays of my children)

5. Uncountability & Infinity

The final question of our festive inquiry is about winning.

What would you do if you won the *empirical research jackpot* with an unlimited budget? At this point the question is partly interpreted as the original question sounds like this: „*If you had unlimited budget what would you conduct a quantitative research about?*”

Our responses show that in addition to professional commitment and aspirations, life issues are paramount. It is important to discover and experience moments, unnoticed details, and connections. It is important to face and recognize unasked and unanswered questions.

¹ by „stuffed six”, we refer to one of the most popular, most crowded tramline in Budapest, tram No. 6.

measurable

- What are the clearly identifiable variables of creativity, advertising hierarchy, and creative rhetoric that can be used to influence consumers' real emotions.
- On the behaviour of members of online communities.
- About the creativity of primary school children and how this is "killed" by the educational framework.
- Desserts of the world (groups, ingredients, kitchen technology, style)
- What people think about different kinds of cheese.
- I would ask all researchers of the world what they would change in today's scientific publication metric standards. Is there an aspect that is very poorly measured by the regular practice? Is there anything unquantifiable?
- The energy invested in writing a Q1 article :)
- How the fluffiness coefficient of sheep affects the welfare of fish in Icelandic geysers.
- I would examine how many times a phone needs to ring before people are sure it won't get picked up. I would calculate how much time we can save in our lives by not ringing phones unnecessarily.
- What values and beliefs really move us in our everyday lives and where we want to go.
- About human greed and ignorance, exploring its depths and its infinity.
- About the assumption that quality of love does not diminish as a function of quantity.
- About how many people's memories live in people's minds at a given moment. What ratio of this is fiction. All this examined in a global and regional comparison.
- How many times have I rolled each number on the dice?
- I would like to know, by quantitative means, how many brush strokes did famous Dutch painters need, on average, per square meter and per square decimeter, to produce a recognized (e.g. Paris Salon, etc.) painting? How does this number relate to contemporary paintings?
- If we were to straighten all the letters a person has written by hand so far and put them side by side, how many meters would come out of a person's life.
- Which musical sounds are used the most in different parts of the world?



6. The sum of the first 24 square numbers is 70^2

There is no speed limit beyond seventy in statistics. The Lorentz transformation cannot stop you, but will square you. The value of the speed of light determined in the SJ unit system is 70×70 . The ship playing chess on the crosstabs flies straight to one, two or three stars indicating the significance levels. Let's decorate and celebrate Judit's virtual ANOVA and other additive-free factor with star scattering.

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Consumer-oriented brand equity in country branding

Barbara JENES

Abstract

This study aims to analyse the areas of scientific research in the domain of country image, country branding, with special emphasis on country equity approach. Different studies on consumer-oriented brand equity (also known as customer-based brand equity, CBBE) have revealed varying pictures of components and divergent relationships and also its adaptability on country branding. The study provides an overview of the country brand equity approach, and the brand equity elements of country branding.

Keywords: *country image, country branding, country brand equity, consumer-oriented brand equity, customer-based brand equity (CBBE)*

1. Introduction

In the past few decades, a growing number of places, communities, cities, provinces, nations and regions have adopted branding concepts and tools to attract investors, visitors, residents, events and so on. (Glinska – Tomaszewska, 2017) This trend is reflected by the systematic rise in the number of publications dealing with this subject confirming the growing interest with this field of knowledge among both academics and practitioners (Gertner, 2011). Academic literature agrees that today, as a result of globalization, a conscious country branding strategy and creating a strong, positive internal and external country image is a main tool of competition between countries.

The 'place branding' concept was first used by Kotler et al. (1993). The stakeholders of place branding are towns, countries or tourist destinations. The concept also encompasses the competition that is in place for tourists, visitors and/or investors. According to Jaffe and Nebenzahl (2001, p. 3.) „the aim is to create a clear, simple, differentiating idea built around emotional qualities which can be symbolised both verbally and visually and understood by diverse audiences in a variety of situations. To work effectively, nation branding must embrace political, cultural,

business and sport activities” In Gudjonsson’s (2005, p. 286.) view, „[t]here are three main goals achieved by using the tools of branding. The first goal is to protect businesses and brands from undesirable and negative effects of government, politics or other related domestic or international actions; the second is to support businesses and their brands in global competition. A third goal is to build prosperity and raise standards of living within the nation”.

Latest studies analyse whether these place branding actions serve on the „high-road” policy level, or rather can be adapted on the level of „low-road” practicalities. (Cleave et.al., 2016)

An other recent approach of the evaluation of country branding methods is the implementation of brand equity measurement. Literature on country as a brand strongly relies on consumer-based brand equity approaches (Aaker, 1991, 1996; Keller, 1993) and indirectly on the associative network memory model (Anderson, 1993). According to Eshuis et al. (2014), place branding is an element within place marketing that involves influencing people’s ideas by forging particular emotional and psychological associations with a place. Each of these associations can have direction and strength and can therefore affect each other in several ways (Jenes, 2012) The evaluation of a country derives from country image measurements and through country equity evaluation ended up in country brand equity approaches.

2. The Evaluation of a Country

The evaluation of a country is influenced by many dimensions. (Jenes – Simon, 2008)

Kotler et al (1997) and Gudjonsson (2005) point out that the perception of country brands equally depends on consumers’ personal background, experience and stereotypes about a given nation’s brand and about the services and reliability thereof.

Allen (2007) highlights the role of personal experience as a particularly determining factor. The author posits that the experience related to a place brand develops well before actually travelling to the given country, through a „pre-place experience”. This is followed by the actual experience (i.e. „place experience”) which is in turn ensued by subsequent memories and „post-place experience”. Each step strengthens the following one. Gilmore (2002) among others studies this self-reinforcing process referring to it as a „dynamic cycle”. According to the latter approach, physical experiences make up the concept of place experience. Moreover, the expectations towards a place can be categorized into two main groups: past experience (memories and loyalty) and communication (acquired through word-of-mouth and brand communications).

In another approach, Eitel és Spiekermann (2007, p. 2.) posit that „[t]he existing associations [...] consolidate themselves into the brand core, which bundles them together and maps out the central characteristics”. This goes beyond a mere process of brand and logo design and equally comprises a set of social processes. The design of a place brand starts with the creation of an internal image (realized self-image) and an external image (realized self-perception) and it is followed by a goal image. In this sense, one can address a place brand along two dimension pairs: (1) present vs. past and (2) planning vs. effect. That is, the evaluation of a place brand is greatly influenced by the inhabitants’ self-image as well as by the external image of the country.

2.1. Measuring Country Image

Country image, according to the latest approaches, can be measured in several ways. The most obvious solution is to measure it to borrow indicators from the *tourism* industry (number of nights spent, inbound tourism, etc.) These tools allow us to monitor the evaluation of a country and the effectiveness and profitability of targeted country image (touristic image) building actions and campaigns. This method, however, is bounded by presenting one-sided results by ignoring other important country image dimensions other than tourism (e.g. economy, culture). This method is deemed acceptable for measuring country (destination) image mainly by authors and practitioners in the fields of destination image, destination marketing and destination management.

Another common method used in practice is that of *financial* evaluation. In this case, the country’s performance and its evaluation is measured by relevant economic and financial indicators (e.g. GDP growth, investment trends, financial risk analysis of the country, various country reports, etc.). This method of evaluation, however, ignores additional, relevant, factors such as the evaluation of a country’s culture or that of its tourism, etc.

One of the most commonly used economic approach (and most closely related to assessing country image) is the *evaluation based on FDI* (foreign direct investments). Papadopoulos and Heslop (2002) highlight that FDI-based research often ignores or undervalues „soft powers” such as the destination country’s image, while these clearly affect investors’ country choices. However, it is still possible to elaborate relevant financial analyses based on the level of FDI.

Another more and more frequently used method is that of *accounting* evaluation. This approach, based on brand equity measures (related to the advent of country brand theory) assesses the evaluation of a country as a brand. Its most basic principle stems from the so-called „royalty relief” approach. This latter gives a

quantitative evaluation of a brand's goodwill in case it were „sold or leased” (i.e. of the genuine value of a brand, without the equity stemming from the related respective tangible assets). To a certain degree this approach converges to a genuine fair value evaluation methodology, even though its approach remains somewhat abstract and subject to professional debate.

Finally, a fairly common practice within *academic research* (considering the nature of the subject) remains a marketing-focused approach. In the field of marketing the use of *country image scales* in the most common practice to measure country image. Another, increasingly popular approach can be related to country branding. The evaluation of *country brand equity* is still a subject of debate. However, it can be stated that there is a growing interest in country equity measurement which can be considered a potential future direction for the related field of research.

3. The Concept of Country Equity

There is a consensus in the literature that brand equity theory can be extended to other concepts, e.g. to countries. Country equity theory is based on *brand equity theory* and takes into account the growing importance of country branding approaches.

According to Jaffe and Nebenzahl (2006, p. 66.) „Johansson and Nebenzahl (1986) made the first attempt to monetize the country image effect by measuring the relative consumer-based value of the images of different countries.” In addition, they also believe that „country image leads directly to country equity.” (p. 63.), similarly to the brand equity approach.

However, according to Kleppe, Iversen and Stensaker (2002, p. 2.) „[t]he term ‘country equity’ was introduced by Shimp et al. to describe ‘that portion of consumer affect toward a brand or product that is derived purely from the product’s associations with a particular country’. These associations, also termed ‘country-related intangible assets’ by Kim and Chung, could be technical advancement, prestige, workmanship, innovativeness, design, economy and service.”

The conceptualization of country image as a country brand is spreading in acceptance within academic circles. At the same time *there are few (though a constantly growing number of) examples of a joint study of brand equity and country or destination image* (Roth – Diamantopoulos – Montesinos, 2008, Kim-Lee, 2018). Kotler and Gertner (2002, p. 249.) define country equity as the emotional value resulting from consumers’ association of a brand with a country.

According to Papadopoulos and Heslop (2002) a country, similarly to a firm, produces many products and possesses therefore several country equities respective to each product category and each market. In the authors' interpretation, country brands can constitute of a multi-level country brand structure. In this structure brand equity has a separate country and product level, though all levels and applications ought to preserve the essence of country brand.

Parallel with the development of the research area, the context of research became broader. According to Papadopoulos and Heslop (2003, p. 427.) country equity is „a set of country assets and liabilities linked to a country”.

According to Jaffe and Nebenzahl (2006, p. 63.) country equity is made up of the following dimensions: country awareness and country image (itself originating from country-of-origin effects and country associations) In their understanding, country equity is not part of country image, rather its effect which originates from consumers' evaluation (especially of products).

Researchers in the field generally agree on the fact that country equity is the value consumers associate to when hearing the country's name. However few sources attempt to measure the exact value thereof (Pappu – Quester, 2010). Most authors consider country equity as a country brand dimension appearing within product or brand equity. Others consider it as a country brand equity (a separate construct) that also affects product evaluation

The extension of classical brand equity theory to countries was first attempted by Shimp, Samiee and Madden (1993), soon followed by several other authors, however Roth et al. (2008) were the first to empirically verify theory.

4. Consumer-Oriented Brand Equity in Place Brand Theories

As seen previously, several authors deal with the conceptualization of country equity as the equity of a country brand, using the consumer-oriented brand equity theory.

According to the recent theories *the country equity equals with the equity of country equity, as an individual construct*, based on the so-called consumer – oriented approach of brand equity.

A consumer-oriented approach is commonplace in the place, country and destination branding literature. To measure brand equity, this approach integrates the models on one hand by Aaker (1996) and on the other by Keller (1993). In the following we give an overview of the above-mentioned consumer-oriented brand equity approaches and their adaptations to the literature of place branding.

It is generally accepted in the field that the measurement of country equity can be most effectively carried out along the dimension of classical brand equity, adapted to countries. To support this, researchers have recourse to the *associative network memory model*, which views semantic memory and mental images of consumers as consisting of a set of nodes and links (Anderson, 1993, in: Pappu – Quester, 2010, p. 277.). The associative network memory model stems from the field of cognitive psychology and was already used by Keller (1993) to develop the original brand equity model. According to Anderson (1993, in: Pappu – Quester, 2010, p. 277.) *consumers' memories store information hierarchically in a node-link structure*, where, in some cases, to a given piece of information given associations would be joined. Accordingly, information about a country will lead to associations which will be stored in a hierarchical order in consumers' minds, i.e. in a network. Each of these associations can have direction and strength and can therefore affect each other in several ways (e.g. having a bi-directional, back and forth effect between pieces of information and associations).

The associative memory model serves as an adequate base in understanding and defining the dimensions of country equity.

In the followings the theory of consumer-based brand equity and its adaptation in place branding theories are interpreted.

The interest towards brand equity (originally based on financial approaches) can be traced back to the 1990s (Barwise, 1993).

According to the classical approach, brand equity is intended to express the *economic value of brands* (Aaker, 1991, 1996; Keller, 1993). *The value of a brand for a consumer* is essentially based on four factors (Dish, 1996, p. 306.): (1) long-term, reliable supply, (2) risk-free repurchase, (3) fast purchasing, (4) importance of trust in the manufacturer. All in all, *for its owner*, brand equity represents the possibility of comparative advantage.

According to the literature, brand equity ensures higher revenues and margins compared to non-branded products (Vuignier, 2017)

According to Kotler (1996, p. 660.) „the basic function of brand is to deliver the messages of best quality guarantee of a product and to provide a set of congruence of product attributes, benefits, and services”

Researchers find that a positive brand equity brings about, among others, a positive future profit and cash flow and has an effect on consumers' willingness to pay a premium, on their decision making and therefore on the brand owners market success (Yoo – Donthu, 2001).

In Aaker's (1991) view, brand equity is synonymous with *value* to the consumer. This value stems from the brand facilitating the processing of information and their decision making. It also ensure them a certain security and certainty in their purchasing. Finally, it results in consumer satisfaction.

According to Keller (1993) brand equity enables greater revenue opportunities for the firm. At the same time it reduces consumers' need for information search. It also contributes to the efficiency of marketing communications and brand extensions.

In Yoo – Donthu's (2001) interpretation (referring to the general view in the field of consumer behavior) brand equity can be seen as the difference in the consumer response when facing an unbranded product or a traditional brand (marketing incentives and product attributes being equal).

Bauer and Berács (2006, p. 170.) state that „brand equity is the set of brand attributes that enable a surplus of value for both the consumers and owners of a brand”. In the authors' opinion brand equity is a multidimensional construct and it can be attributed with a financial value.

According to Aaker (1996, p. 9.) *brand equity* is composed of the following elements: (1) brand loyalty, (2) brand awareness, (3) perceived quality, (4) brand associations, (5) benefits related to brand ownership

Keller's (1993, p. 7.) model contains two elements: (1) brand awareness and (2) image.

Summarizing the classical models of brand equity, the literature generally accepts four distinct dimensions, often completed by several authors, with a fifth component. These are (in the followings we summarize both of the general brand equity, then the place branding approaches of each elements)

4.1. Awareness

According to Aaker (1996) brand awareness shows in what ways and to what extent a brand is present in the heads of its target audience (consumers) in a given continuum. In his definition, he states that brand awareness represents the consumer's ability to *recall* or *recognize* a given brand in a given product category. In his interpretation, brand awareness can be compared to a three-level pyramid where the top level corresponds to the top-of-mind awareness, where a given brand outstrips every other brand in a consumer's head. Most place brand studies concentrate on this latter level.

Keller (1993) specifies that brand awareness includes the concepts of brand recall (spontaneous) and recognition (aided).

Several authors state that brand awareness accounts for the most determining factor of consumer decision-making. Brand awareness is equally an important antecedent to the perceived value of brands (Webster, 2000).

4.2. Image (associations)

Image is the sum of different consumer perceptions (which may be related to previous personal experience or emotions) related to brands (Keller, 1993). In addition image is an important dimension of brand equity (Keller, 1993).

Aaker's (1991) model refers to image as „associations". In the authors' interpretation, brand association is „anything linked in memory to a brand" and brand image is „a set of associations, usually in some meaningful way" (Aaker, 1991, p. 109.).

Authors generally accept that there is a positive relationship between image and perceived value (Boo et al., 2009), and that image equally affects consumer loyalty. The field of place and destination marketing (as well as several place marketing approaches) accepts image as an integral part of brand equity (Konecnik – Gartner, 2007; Boo et al., 2009). In addition, image can also often be considered as part of brand personality (Boo et al., 2009)

However it can be stated that the positions on the measurement of brand equity and image are often mixed up.

4.3. Perceived quality

Perceived quality is one of the key dimensions of brand equity approaches. It is worth noting that the literature refers to brand quality and perceived quality as synonymous concepts. According to Aaker (1991, p. 85.) perceived quality is a „customer's perception of the overall quality or superiority of a product or service with respect to its intended purpose, relative to alternatives".

In Yoo and Donthu's (2001, p. 3.) definition, perceived quality is „based on consumers' or users' [...] subjective evaluations of product quality". Keller (2003) identifies seven dimensions (performance, features, conformation quality, reliability, durability, serviceability, style and design) that define perceived quality. These dimensions can mostly be employed in the case of products.

Perceived quality is generally viewed as a direct antecedent of perceived value in the literature According to Boo et.al. (2009) the concept of customer-based brand equity and its measurement have emerged in tourism and hospitality settings and in discussing destination brands, elements including environment and service infrastructure should be considered in measuring destination brand performance.

4.4. Loyalty

Aaker (1991, p. 39) defines brand loyalty as „the attachment that a customer has to a brand". In the authors' model on brand equity (Aaker, 1991, 1996) loyalty accounts for a key element. According to Lassar et al. (1995) perceived value induces

consumer safety and certainty which then manifests itself in consumer loyalty and their willingness to pay a premium for the product. In Oliver's (1997) view, brand loyalty is the propensity of a consumer to consider a brand as their first choice in a purchase situation. Keller's (2003) model equally considers loyalty as a key factor for brand equity.

Loyalty is generally defined as an attitude or behavior in the literature, even though its conceptualization is not exempt of flaws (Boo et.al. 2009).

It can also be concluded that loyalty equally accounts for an important dimension for the fields of place and destination marketing and it is often included as a dimension (see e.g. Konecnik-Gartner, 2007; Boo et.al, 2009).

4.5. *Perceived value*

There is no widely accepted definition for perceived value (Parasuraman, 1997). The most wide-spread approach originates perceived value from price (Tsai, 2005). According to Lassar et al. (1995) consumer brand choice is the effect of the perceived balance between a product's price and its utility. Studies show that perceived value is a multidimensional construct. In Aaker's (1996) famous model it is related to the perceived price to value ratio.

Literature equally shows that perceived value has a positive effect on prospective consumer behavior, among others, on repurchase intentions (Tsai, 2005) and loyalty (Boo et.al, 2009).

According to the literature one can state that perceived value is less examined in place marketing studies, it is more relevant in destination image theories.

In Keller's view (2003, p. 477.) brand equity is a multidimensional concept, that is so complex, that it requires various measurement methods. According to Pappu et al. (2005) the measurement of brand equity is still a challenging topic for researchers as there is no consensus in the field.

5. Measuring Country Brand Equity

The term „country equity” gained recognition with the introduction of the concept of country brand, as most scholars define *country equity as the value of a country brand* (Roth et al., 2008). Authors agree that country equity is a *multidimensional construct* best studied along a *consumer-focused approach*.

Country equity measures have been limited to a *practical application*. Accordingly, brand equity measures can mostly be related to the field of accounting, as the evaluation of brand equity (as an intangible asset) is commonplace (although not entirely unequivocal) in this area. Similarly to classical brand equity measure-

ment and management, the concept of „country equity” has several advantages: among others, it can contribute to raise the efficiency of the positioning and communications of a country. Another advantage is the fact that the more positive is country equity, consumers the more consumers are inclined to be loyal, brand extensions are inclined to be more effective and a country can gain in bargaining power (Aaker, 1991; Pappu – Quester, 2010).

On the *theoretical* side one can also come across a *marketing-focused approach*, based on the concept of *consumer-focused brand equity* (see above). General approaches of branding distinguish between several factors: e.g. associations, perceived quality, brand loyalty, awareness. Country equity therefore is a construct that is based on an association-based evaluation by consumers, even though there is no generally accepted view as to the dimensions it is composed of.

The above mentioned associative memory model (Anderson, 1993, in: Pappu – Quester, 2010, p. 277.) serves as an adequate base in understanding and defining the dimensions of country equity.

Pappu-Quester (2001) define the factors of country equity as follows: (1) country awareness, (2) country associations, (3) country loyalty and (4) perceived quality. According to Roth et al. (2008) country equity is composed of (1) country awareness and associations, (2) perceived quality of country brand, and (3) country loyalty. Pappu and Quester (2010) developing on their prior position, (in addition to the four dimensions already mentioned) propose the introduction of a fifth dimension, namely country image.

Below, we give a summary of the general conceptual contents of the above dimensions according to the literature.

5.1. Country awareness

Similarly to Aaker’s (1991) brand awareness dimension, „[c]ountry awareness does not involve merely knowing of the country, but requires from consumers the ability to recall the name of the country when the product category is mentioned” (Pappu – Quester, 2010, p. 280.). Several authors, however, believe that this relationship may be bidirectional, that is, recalling a country name can entail product category associations as well.

5.2. Country image, country associations

Building on Keller’s (1993) concept of brand association, country association refers to the mental images which consumers hold in their minds about a country and which act in the making of certain decisions. Country associations can be

interpreted on a country and a product level. Stemming from country-of-origin image theory, the product level refers to the fact that associations about products related to the country of origin equally affect country image. For that reason, several authors refer to the concept as country-of-origin associations (e.g. Kleppe et al., 2002). Similarly to the micro and macro levels of country image, a number of authors distinguish between micro and macro country associations (Pappu – Quester, 2010).

5.3. Perceived quality

In Aaker's (1991) interpretation, perceived quality is not identical to real quality, it rather reflects a mental image in the mind of the consumer about quality. Zeithaml (1988) adapts this view to countries, stating that perceived quality reflects the quality realized by consumers of a product originated from a particular country. Therefore this approach is not a metaphorical „perceived quality dimension” of country brand, rather a product-level effect stemming from the country-of-origin effect. (Pappu – Quester, 2010)

5.4. Country loyalty

According to Paswan et al. (2003) country loyalty (similarly to classical brands) is the manifestation of consumers' commitment to countries. According to the literature, loyalty can be interpreted as an association as well as a behavior (Aaker, 1991; Oliver, 1997, in: Pappu-Quester, 2010, p. 280.). Pappu and Quester (2010) in the model equally consider purchase intention and primary choice as crucial points in determining country loyalty. According to Tasci (2018) familiarity and image were the two most prominent components explaining loyalty in CBBE models, although both consumer value and brand value also had some mediating effects on loyalty.

5. Conclusion

Consumer oriented country brand equity approach can be used in practice, both in terms of education and communication. Education would imply preparing all stakeholders in a country's tourism economy that tourists' impressions all add up to the country's image and therefore to their future loyalty to the country, which in turn affects their potential willingness to return. In communications, this result would imply using a country's „human face” when communicating the destination which indirectly could lead to a more favorable general perception of the country and therefore to a better evaluation of it as a destination.

Moreover, country loyalty is a major factor within country equity that affects destination evaluation and thus has an indirect effect on the country's popularity as a touristic destination. Taking into account and managing this fact could contribute to the success of a country when appearing as a touristic destination.

Another practical implication is to having unveiled the central role of country associations. A destination evaluation and country loyalty can be improved by reinforcing the evaluators' spontaneous associations about the country. The practical outcome of the latter approach can manifest itself in the management of a country's competitiveness and touristic popularity, and it also indirectly affects the evaluation of investments to and products from the country.

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Professor Judit Simon had already taught me marketing research during my university years.

Her name was already associated with marketing research education at that time. From 2006 to 2012 she was my doctoral supervisor and helped to design and further develop my research plan. Thanks to her, during the doctoral years our PhD students' community was able to learn about a number of new methods, including the application of the SEM method. Among other things, she organized a joint seminar with German doctoral students, and we also had the opportunity to further develop our research at the University of Passau. I would like to take this opportunity to thank Judit for her support in my doctoral work and during my university teaching career as well. I am grateful for the work together and I wish her all the best in the future as well.

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Twenty-Eight Years of Research on Consumer Values in Hungary

Ágnes Hofmeister-Tóth

Abstract

The nature of values is a topic of continuing interest in marketing. Some values are relatively permanent, but others undergo continual change. The values in transition are of particular interest to marketing because they often change the size of market, or cause changes in response to advertising. The change from command to demand economy triggered major changes: foreign investment, privatization, an explosion of new product and brands, and increased advertising. The question was how the Hungarian consumers coped with the rapidly changing environment, how their values have changed and how they become more stable over time? This paper first briefly reviews the literature on values, then, it presents the main findings of some selected value research, done between 1992 and 2020. Finally, the implications of values for consumer behavior are also discussed.

Keywords: personal values, value change, consumer behavior, marketing, economy in transition

1. Introduction

The nature and structure of personal values is a topic of continuing interest in marketing. Contemporary marketers recognise that values are criteria for sorting out the options and for implementing one mode of behaviour rather than others. An essential element in the move from a command to a demand economy is the development of a consumer orientation. This was fundamentally new to the East European market economy, in which in the past there has been no effective consumer choice, and no management role in anticipating and seeking to provide for it. In the economy in transition, the consumer was confused the old system with money nothing to spend for and empty shops no longer exists, increased advertising, coupled with inflation, leaves consumers bewildered and sometimes bitter. Consumer values are the backdrop against which marketing programs perform. Values are the scenery, and the brands are the protagonists (Millar & Restall, 1991). The need to understand the target market is more pressing and it is

important to understand the complexity of its emotional and affective processes, to establish lasting linkages between a brand and its audience. Therefore, the value system, rather than a single value, should provide a more complete understanding of the motivational forces driving an individual's beliefs attitudes, and behavior. The impact of a person's values on attitudes and behavior can be evaluated more effectively and reliably with information on the person's whole value system, rather than a single value. (Kamakura & Novak, 1992. p. 119.)

In the past nearly 30 years of value research we have conducted several research studies (see Attachment) investigating the values of the university students and the Hungarian consumers. Most of our value research was done by using the Modified Rokeach Value instrument (MRVS), the Importance and Realisation Value instrument (IRVS) or the Love Value scale. This paper first briefly reviews the literature on values relevant to consumer behavior and addressed in our study. Then the paper presents the main findings of our longitudinal value research, done between 1992-2002, using the Modified Rokeach Value scale. The paper also presents the result of another longitudinal study applying the IRVS scale, which revealed that although the most important values of the Hungarian consumers were not realised neither in 2007 nor in 2018 but they showed high stability over the years. Finally, implications for marketing are discussed.

2. Theoretical background

Value research has been an area of study focus for several decades in various disciplines (Vinson 1977). Although there are several definitions of value, there is not one universally accepted precise definition. The concept of value is multifaceted, and the conceptualizations of value vary based on the context of the study (Babin, Darden and Griffin, 1994, Ravald & Grönroos, 1996). Rokeach (1973) argued that values are taught at an early age and he assumed (a) that the total number of values a person possesses is relatively small, (b) that all people everywhere possess the same values to different degrees, and (c) that the antecedents of human values can be traced to culture, society, and its institutions (Rokeach, 1973, Hofmeister-Tóth & Simányi, 2006).

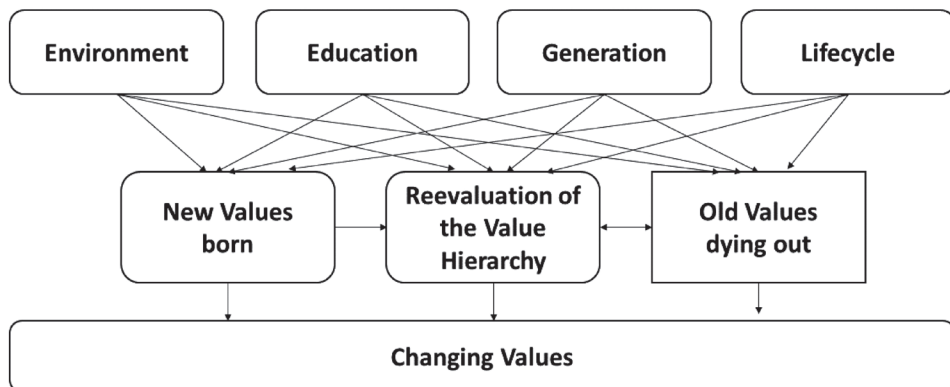
Further, Rokeach identified two levels of values: terminal values and instrumental values. Terminal values referred to desirable end-states of existence, while instrumental values referred to desirable modes of conduct. Terminal values are personal goals that people want to achieve, and the instrumental values are motivators to reach goals, to reach the desirable end-states of existence. Rokeach specified eighteen terminal and eighteen instrumental values, which respondents were asked to rank in the original research instrument known as the Rokeach Value Survey (RVS). Accordingly, a value system can be viewed as a learned organiza-

tion of principles and/or rules that help us to choose between alternatives, resolve conflicts, and make decisions. The role of values as rules or norms influencing personal judgments and choices with respect to objects, ideas, and people supports the relationship of values to behaviour (Vinson, 1977). Schrum, McCarty and Loeffler (1990) examined the stability of individual values in the RVS and while the RVS was originally applied in the field of psychology, it became one of the first to be used in marketing (Kamakura & Mazzon, 1991).

1.2. Changing Values

Reokeach's thesis is that people are not born with their values but form them from their earliest days through their lifetime. People adopt general values, which influence consumption such as thrift, pleasure, honesty, ambition and so forth. These values also produce specific preferences relating to choices on aesthetic factors, or practical factors such as liking for convenience or certain shopping styles. The values in transition, are of particular interest to marketing people because they often create or change the size of market segments for products or cause changes in response to the advertising, or to the product range or to the service offerings. Figure 1. is showing the most important reasons for a change in the value system.

Figure 1. The Reasons of Changing Values



Source: A modified version of Windhorst (1985 pp. 48.) model, in Hofmeister-Tóth (2003 pp.9.)

Since values that individuals hold, are considered to have a major influence on human behavior therefore it is extremely interesting to investigate the values of consumers of a country in transition.

3. Value Research in Hungary

3.1 First Value Research: ACE /EVE Research 1992

The first value research had been carried out in 1992 in the framework of the ACE/EVE Project supported by the EU. The EVE Network included other countries beside Hungary: Bulgaria Romania, Slovenia, Czech Republic, Slovakia, Poland, East-Germany, UK, and West Germany were included and used for comparison. The focus of this research was on female consumers in the CEE. A representative sample of female consumers in the age range from 18-50 was used in each country. Using a mixture of Robert Plutchik's (1980) emotions and Rokeach values as well as information derived from qualitative research, a new and modified list of attributes was developed. This modified list, after piloting, comprised 42 variables, was deemed to cover a comprehensive list of values relevant for marketing, and was used for the ACE/EVE Project in 1992. This list was referred to as the 'life aspirational values' and contained terminal and instrumental values mixed in one column. After piloting a self-completion questionnaire was administered, which had been translated into the respondents' mother tongues.

The questions asked respondents to choose from the 42 modified terminal and instrumental values, which were presented mixed in the list, those which they themselves found the most important. They were free to choose as many as they wished. Usually 7- or 10 value items were chosen. In common across all the countries were the ideals of *being capable or confident or responsible/dependable* – close in meaning, and sometimes more than one of these appear in the top list. Yet the fact remains that in each country a different value was picked first, and the detailed content of the list varies considerably (Table 1).

Table 1. Life aspiration values

Value	Nr. of countries in which chosen as one of top 7 values	
Honest-sincere	10	2x as nr. 1, Hungary and UK
Clean/neat	9	3x as nr. 1, Czech Rep., East and West- Germany
Capable/competent	8	1x as nr.1, Bulgaria
Contented/relaxed	6	1x as nr. 1, Poland
Intelligent	5	Bulgaria, Romania, Hungary, Slovakia, Poland
Kind	5	Bulgaria, Hungary, East-Germany, UK
Helpful	5	Bulgaria, Hungary, East-Germany, UK
Active/dynamic	4	2x as nr.1, Romania, Slovenia

Value	Nr. of countries in which chosen as one of top 7 values	
Confident	4	Slovenia, Hungary, West-Germany, UK
Responsible/dependable	4	Slovakia, CzR, East-Germany, West-Germany
In balance/harmony	3	Slovakia, CzR, West-Germany
Equal (socially)	2	1x as nr. 1, Slovakia
Admired/respected	2	Romania, Slovakia

Source: Millar & Hofmeister-Tóth (1995)

Looking at the top 7 items (Table 1) chosen in each of the 10 countries, it is important to observe that there is both similarity and difference between the countries and that 14 values altogether accounted for 90% of the top 7 items. The one value present very strongly throughout the countries amongst the top 7 is 'honest/sincere', whilst other inner values such as *kind, helpful, contented, relaxed, loving* were also present among the top 10 everywhere. One of the items which were inserted because of a Network request 'equal-socially' came up top in Slovakia, and as fifth item in East Germany. These 14 items represented the shared values amongst all 10 countries surveyed, common ground, and allowing common approaches in marketing terms. Yet there were many differences too, the UK, West-Germany and Slovenia were seen as quite close, but different from others; Bulgaria and Romania were quite close, differing from the others by the lack of 'contentedness' and 'confidence' and the important presence of active/dynamic. Hungary's pattern of top seven items was very human and caring with a *sincere, intelligent* overtone.

3.2 Monitoring the changes of values between 1992-2002

In order to monitor the changes of consumer values the MRVS value list of 1992 was repeated in Hungary three times: in 1997, 2001 and 2002 in the framework of the regular quarterly Consumer Sentiment Index (CSI) Research Project. The data collection method of the CSI research was face-to face interviews using representative samples of the Hungarian population over 18 years of age. Looking at Table 2. we can observe a tendency from values directed towards others to values referring to the individual. *Helpful, polite, responsible* are values that are understood in the context of interaction with other people. In comparison, *health, happiness* and *inner harmony* relate to the physical and emotional state of the individual. Even the values that refer to other people - such as *family security* and *true friendship* - tend to be limited to a specific group of people considered as important for the individual.

Table 2. Monitoring the values 1992–2002

1992 n=600 women	1997 n=500	2001 n= 500	2002 n=500
Most important Values			
Honest/sincere	Honest/sincere	Helpful	Health
Helpful	Helpful	Honest/sincere	Family security
Intelligent	Clean/neat	Economical/thrifty	Honest/sincere
Clean/neat	Economical/thrifty	Confident	Peace
Loving/tender	Responsible	Responsible	Happiness
Kind	Polite	Peaceful	True friendship
Confident	Kind	In control	Helpful
Polite	Loving/tender	Polite	Inner harmony
Protective	Peaceful	Kind	Freedom
Logical	In tune with nature	Loving/tender	Economical/thrifty
Least important values			
Supported 2%	Successful 5%	Inspired 1%	Inspired 2%
Inspired 1%	Supported 6%	Supported 6%	Forgiving 4%
Rich/have money 1%	Rich/ have money 2%	Restored/uplifted 2%	Obedient 1%
Shift in Values			
		Successful 15%	Clean/neat 14%
		Rich/have money 14%	Religious 20%
			Self-confidence 21%
			Rich/have money 27%

Source: Hofmeister-Tóth (2003 p.16)

These results suggest a tendency in which the individual and his or her close circle of beloved ones are becoming more important as opposed to the people in general. The rationale behind this finding is a substantial difference between the ideology of the socialism and that of the market economy: as opposed to the collectivist logic of the former. It is also the new logic of the market economy that is reflected in the shift from instrumental to terminal values. As we can observe in Table 2., in the beginning of the 90's Hungarian population put more emphasis on

the instrumental values, especially on those related to the traditional lifestyle and that forming a moral basis for the society. The moral values have a certain „must” feature so that any opinion or behaviour opposing them is judged negatively by the society. After the collapse of the socialism, the social control over the action weakened, and meeting the expectation of other members of the society has become less important. The value list in 1992 did not contain the value *economical/thrifty*, but in 1997 we included it in the list, as economic hardship and budgetary restrictions made it difficult for many families to make ends meet. As the family budget narrowed, the value *thrifty* became very important and acquired the fourth rank in 1997 and third in 2001. The value *rich/have money* has also gradually moved upwards on the list: in 1992 only 1% of the respondents judged it important, acquiring the last place in our list, while 10 years later 27% of the sample considered it important. In 2002 the value *health* was added to the list and acquired the first place. In view of the fact that our value research was carried out using face-to-face interviews, it may have resulted in a certain extent of pressure to meet social expectations. This implies that the rank of a value does not only reflect its importance but also the evaluation of the respondents of its social acceptance. Hence, not only the importance of *being rich* has grown over the past decade, but at the same time the desire of *becoming rich* has become more legitimate. Aspiring for more money and wealth was condemned in the socialist ideology (Dessewffy 2002), but in 2002 it seemed to have been slightly overcome by the logic of the market economy (Hofmeister-Tóth & Simányi, 2006).

3.3 Towards the development of a new value scale

Through the years between 1992-2005, we experimented with value rating as well as ranking, including discussions with respondents (university students) concerning their experience with the methods. We experimented with different measurements, using 5-point, 7 point, and 9-point scales; with the ACE/EVE value scale and the original Rokeach scale in order to gain a better understanding of the value system of the Hungarians. The original ranking procedure has been found to be too complicated by respondents. In order, to develop a framework for monitoring value changes influencing consumer behaviour, we have started to look for a new research tool, which would be more appropriate for using as an independent variable in our value-attitude-behaviour model. We carried out group discussions with university students, gathered feedback on the different modified versions of the Rokeach value list (MRVS), List of Values scale (Kahle 1983), Windhorst (1985) scale of value statements and Schürmann’s Global Value Scale (1988) and conducted content analysis. According to the results of the qualitative research and experiments it turned out that, the LOV was found to be too short, the 42 items of the modified Rokeach scale was far too long and difficult to administer. On one experiment we asked a group of students to eliminate the values of

the modified Rokeach scale they did not find relevant. We did the same with the Schürmann (1988) scale and we have compared the remaining values of the different scales and combined the items in one scale. The new value scale included a few items of the modified Rokeach scale, but most of the items were similar to the adopted Schürmann's GVS scale (1988), asking the respondents not only to rate the importance of the single value items but also the realisation of them.

3.4 Testing the new scale in 2005 among CUB students

The new values measurement instrument, which we named later as Importance and Realisation of Value Survey (IRVS), was tested the first time in April 2005 on a sample of university students. In addition to the evaluation of the importance of the values on a 5-point Likert scale, we asked the respondents to assess to what extent they succeeded in putting into practice the values in their own life. We also analysed the relationship between the scores given for importance and for realisation and found a strong correlation. This means that those who consider a value important also make more efforts to realize it in their life conduct.

Comparing the distribution of the different groups across values, we could observe that most values were found more important than their actual fulfilment. Exceptions were the *family*, *wisdom* and *sincerity*, *generosity* and *modesty*, which respondents performed at least to the level of their importance. The biggest discrepancy was observed in the case of the most important values, *happiness* and *health* and also of *contentedness*, *harmony* and *order*. The new values list was also tested on a convenient sample of adults in 2006 and worked well. Table 3. Shows the most important and most realised values of the CUB students in 2005.

Table 3. The Importance and Realisation of Values of CUB students in 2005

Importance			Realisation		
Rank	Value	%	Rank	Value	%
1	Happiness	82.9	1	Honesty	87.7
2	Health	82.4	2	Wisdom	87.3
3	Lust for life	76.7	3	Education	82.5
4	Family	73.9	4	Sincerity	81.6
5	Wisdom	71.8	5	Generosity	78.8

The importance of the given value in Table 3. is measured as a percentage of those respondents who considered the value as „very important”. When analysing the data on the realization of the values we merged the answers rated 4 and 5 on the Likert scale (fully realized, almost fully realized).

3.5 Comparison of values between US and Hungarian university students

The IRVS was administered in Hungary and in the USA twice in the 2007/2008 and 2008/2009 academic years. The sample consisted of undergraduate students of Corvinus University of Budapest and Eastern Connecticut State University. Sample size was 231 in Hungary and 198 in the USA. Table 4. depicts the top five ranked values by both US and Hungarian respondents. In examining the extent to which there may exist some universal values, we found three values among the five most important values were the same in both countries: *family, happiness and health*. The other two values among the five most important values were different. In the case of Hungarian students, *lust for life and wisdom* were listed while US students identified *freedom and education*. The five least important values were listed by respondents in both countries were the same: *originality, modesty, order, prestige, and thrifty*. Comparing the importance of values to the realisation of the values we found more differences than similarities. The five values ranked as most realised in Hungary were *honesty, wisdom, education, sincerity and family*. The five most realised values according to US respondents were *family, education, honesty, happiness, and freedom*. Only two of these values were the same in both countries' top five; these are *family and honesty*. It is interesting to note that *Honesty* was not among the top five values of the importance ranking in either of the countries.

Table 4. Importance of Personal Values

Values IMP HU	M	SD	Values IMP USA	M	SD
Happiness	4.81	0.43	Family	4.74	0.51
Health	4.78	0.53	Happiness	4.73	0.53
Lust for life	4.76	0.50	Freedom	4.63	0.64
Family	4.64	0.67	Health	4.61	0.62
Wisdom	4.61	0.58	Education	4.57	0.64

Source: Eibel-Spányi and Hofmeister-Tóth (2013)

We compared the importance and realisation of personal goals and values, calculating deltas of the means of values and found some major differences. The gap between importance and realisation may in part be related to the stage of life of the respondents. Young university students may rank certain values as important but may not yet have the opportunity to realise these values. These differences were generally much larger among Hungarian respondents than for US respondents. That may reflect the economic differences between the USA

and Hungary, where due to more positive economic conditions at the time that the data was gathered, US students had a greater opportunity of realising the importantly ranked values. The biggest difference in terms of importance versus realisation for Hungarian respondents were *health* (1.0), *happiness* (0.97), and *harmony* (0.89), while the biggest difference for US were *success* (0.78), *wealth* (0.69), and *wisdom* and *achievement* (0.64). (Eibel-Spányi & Hofmeister-Tóth, 2013).

4. Representative Research Using the IRVS Value Scale in 2007 and 2018

In the framework of the OTKA research project¹ „Process becoming a consumer in Hungary”, the IRVS list was used for the first time on a representative sample of the Hungarian population. The sample size was 500 people, representative of the Hungarian population aged 18-65. In 2018 the IRVS was applied for the second time on a representative sample in the framework of a larger research project, which aimed to investigate the importance and realisation of personal values, cognitive age, well-being, attitudes towards advertising and the representation of the elderly generation in TV advertisement. The sample size in 2018 was 800 and was representative of the Hungarian population aged 18-65 for gender, age, settlement type and region. Table 5. shows the results of Hungarian population regarding the importance and realisation of personal values in 2007 and in 2018.

Comparing the distribution of the different groups across values in both years (Table 5), we can observe that most values are found more important than their actual fulfilment on both years. Exceptions are *honesty*, *modesty* and *generosity*, which respondents performed at least to the equal level of their importance. Overall, it can be said that the values are less realized in the lives of the Hungarian population than they would feel important. In the evaluation of the latter, the average of the responses is higher than the evaluation of their realization in life. In 10 of the 24 values, there is a difference of 0,7 or more on the 5-point scale between the two response (Importance and Realisation) groups. There is a statistically significant difference between the mean values of *importance* and *realisation* in all but one case, which is *modesty*. For the total population in 2007 the largest differences are found in *wealth/be well off* (importance: 4.48 vs. realization: 3.23) and *contentedness* (importance: 4.52 vs. realization: 3.47).

¹ The research project was supported by OTKA KO 558/2006-2009.

Table 5. Difference between the Importance and Realisation of Values in 2007 (N=500) and 2018 (N=800)

2007						2018				
Importance			Realisation			Importance		Realisation		
R	Value	Mean	R	Mean	Diff.	R	Mean	R	Mean	Diff.
1	Health	4.86	14	3.88	-0.98	1	4.74	17	3.56	-1.18
2	Family	4.83	3	4.33	-0.50	5	4.61	5	3.99	-0.62
3	Security	4.77	15	3.81	-0.96	2	4.64	8	3.85	-0.79
4	Happiness	4.75	12	3.93	-0.82	3	4.63	13	3.69	-0.94
5	Honesty	4.71	1	4.56	-0.15	4	4.62	1	4.43	-0.19
6	Lust for life	4.70	7	4.02	-0.68	7	4.56	12	3.70	-0.87
7	Harmony	4.63	11	3.94	-0.69	13	4.37	15	3.63	-0.74
8	Sincerity	4.61	2	3.37	-0.24	6	4.61	2	4.33	-0.28
9	Freedom	4.57	6	4.05	-0.52	9	4.50	9	3.82	-0.68
10	Contentedness	4.52	21	3.47	-1.05	12	4.37	18	3.45	-0.93
11	Independence	4.48	5	4.08	-0.40	10	4.46	6	3.98	-0.48
12	Wealth/be well off	4.48	24	3.23	-1.25	14	4.21	24	3.19	-1.02
13	Generosity	4.44	4	4.29	-0.15	11	4.38	3	4.27	-0.12
14	Order	4.44	9	3.98	-0.46	17	4.07	10	3.73	-0.34
15	Wisdom	4.42	8	4.02	-0.40	8	4.53	4	4.07	-0.46
16	Performance	4.33	13	3.89	-0.44	16	4.08	14	3.66	-0.42
17	Achievement	4.31	19	3.52	-0.79	18	4.07	22	3.37	-0.70
18	Success	4.22	22	3.41	-0.81	22	3.90	23	3.22	-0.68
19	Thrifty	4.18	23	3.40	-0.78	15	4.09	20	3.42	-0.67
20	Pleasure	4.11	16	3.67	-0.44	19	4.03	19	3.44	-0.59
21	Originality	4.05	17	3.66	-0.39	20	3.94	11	3.71	-0.23
22	Education	4.0	18	3.57	-0.43	23	3.90	16	3.63	-0.27
23	Authority	3.96	20	3.50	-0.46	24	3.60	21	3.38	-0.22
24	Modesty	3.89	10	3.96	+0.07	21	3.93	7	3.98	-0.05

Source: own construction

In 2018 we found the largest difference in the following values between *importance* and *realisation*: *health* (importance 4.74 vs. realisation 3.56), *wealth/be well*

of (importance 4.21 vs. realisation 3.19), *happiness* (importance 4.63 vs. realisation 3.69) and *contentedness* (importance 4.37 vs. realisation 3.45). This means that these are the values that remain hardly accessible ideals for most respondents or at least could not be accomplished to the extent their value system would imply and unfortunately this tendency has not change in more than ten years. There is also a significant difference of at least 0,7 on average in the values of *security, happiness, health, lust for life, achievement, harmony, success* and *thrifty* in 2007 and *lust for life, security, harmony success and achievement* in 2018. Interestingly there is virtually no difference in both years between *importance* and *realization* in the following four values: *honesty, generosity, and modesty*. The difference between the means is less than 0.2 in their case in both years. It is worth looking at the relative positions of the values within the two response groups (importance and realisation of values) in both years. We experience strong rearrangements in the rankings (Table 5). It is not uncommon for a value to move 10 or more places forward or backward when it comes to realizing values in life, as opposed to their importance.

5. Managerial Implications

All the values research presented here has several implications for marketing and advertising practitioners. An understanding of what values are most important to potential customers can provide useful information making decisions about product positioning and communications. There appears to be a small cluster of values such as, *happiness, health, and family*, which may well be universal and can be used by marketers in product positioning and communications. For example, product and service development, and the positioning and advertising strategies used to target the Hungarian consumers are more likely to be successful if *health, security, happiness and family* are kept in focus. Nonetheless, products designed to appeal to the values of *happiness, health, and family* may well be able to command a premium price. A whole range of products and services, including financial services, health care products, cars, and home security products can be positioned on *safety*, which was the number three value for the Hungarian consumers in 2007 and number two value in 2018. Advertising strategies for such products and services are likely to be successful if they utilise fear appeals and then focus on physical and psychological *security* and *safety* issues. Guarantees and warranties to increase the feelings of security around a purchase also need to be emphasised. Marketers may also benefit by better understanding the large gaps between importance and realisation of key values and consider marketing actions which would appeal to these consumers in closing these gaps by buying or consuming products and services related to these gaps. This may apply in particular to messages around values such as *harmony, wealth and success*.

6. Summary

Personal values provide useful information to marketers with respect to consumer behaviour. In this research we examined the values of university students and the Hungarian consumers over time and that how these values are reflected in their personal lifestyle. Personal values are seen not only as motivational goals that people hold, but also as ideas that are deeply embedded in society's culture, collective behaviors, traditions, and institutions. Values define and bind groups, organizations, and societies, serve an adaptive role, and are typically stable across generations. Once a value is learned, it becomes part of a value system, in which each value is ordered in priority relative to other values. Personal values change in response to substantial alterations in the social-ecological context. Individual values arise for adaptation to one or more basic requirements of the human social being: biological needs, social interaction, and survival. At the cultural level, within societies, „value change is an evolutionary process in which those values that are best suited to cope with life under given existential conditions have a selective advantage” (Inglehart and Welzel, 2005, p. 23). Numerous studies revealed that values are relatively stable over time (Bardi and Goodwin, 2011, Vecchione, M. et al. 2016). The transition from socialism to the market economy in Hungary represented a substantially new environment, in which new values, norms and mentalities had to be adapted to cope with the changes. The socialist ethic focusing on well-being of the society as whole, solidarity and post-material values is gradually replaced by a new morality developed according to the exigencies of the new era. As new opportunities of favoured forms of comportment and ways to success are opening, and previously established norms prove to be no longer adaptive, a shift takes place in the relative importance of values, which may lead to an overall change in value orientation. This shift, however, takes place at a different pace in the various subgroups of the society. At the same time, *honesty* representing a desire for predictable social relations, remains one of the most important values and the most realised value for Hungarians, which indicates the importance of common value system, shared by all members of the society. Considering that contextual factors of our longitudinal value research and even random noise may affect individuals' reports of their value priorities and their realisation, the extent of consistency in values of the Hungarian consumers across time is remarkable.

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I have known Judit Simon for 30 years. We have worked together in several research e.g., Consumer Confidence Index research and we published a few articles and co-authored a book on consumer satisfaction. But perhaps the most important collaboration took place within the framework of the DSG, which we built up and strengthened together under the leadership of Professor Helmuth Schmalen from the beginning of the 90s. Even today, I am happy to think of the block seminars in the Puszta, or the joint meetings in Passau. According to the late Professor Schmalen, Judit was „the engine and the soul of the DSG"! Dear Judit! On your 70th birthday, I wish you good health and happiness!

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Appendix

Research Projects on Values between 1992–2020

- 1992–1994 ACE/EVE Research Project Evolving Values in Eastern Europa
- 1997–2004 Monitoring values, Survey Center, Consumer Centiment Index research series
- 1998–2001 Research on Values using the Windhorst (1985) value scale
- 2000. Research on Materialism using Belk (1984) and Richin-Dawson (1992) scales
- 1999–2000 Culture and Management Project, using the MRSV scale Vienna-Budapest
- 2001–2004 Qualitative research on the meaning of values
- 2005 The development of a new value scale

Research using the Importance and Realisation Value scale (IRVS) 2005–2020

- 2005 Testing IRVS on a sample of CUB university students
- 2007 In the framework of the OTKA KO 558/2006 research project, using IRVS on a representative sample of 500.
- 2007–2010 Testing IRVS among students at the Eastern Connecticut State University (USA) and Corvinus University
- 2018 November, Applying IRVS in the Research Project of Values, Cognitive Age and Well-being, online representative survey, sample size 800.
- 2020 September, online survey IRVS, convenient sample 300

Research Projects using the LOV Scale.

- 2009–2011 Ethical consumption among the elderly, international research project (UK, Germany, Japan, Hungary)
- 2006–2010 Sustainable Consumption, Production and Communication (Norway Grant)
- 2010–2014 TÁMOP-4.2.1/B-09/1/KMR-2010-0005 project Sustainable Development
- 2019 Research on Materialism among Adolescence, online

Researches supporting the surrounding business and social environment: Positioning and branding of a thematic street in District IX, Budapest

Ivett Pinke-Sziva, Orsolya Szakály, Monica Coronel, Eylül Balaban

Abstract

Within the framework of a project implemented by the Municipality of District IX of Budapest in cooperation with Corvinus University of Budapest, the current article presents the results of an exploratory qualitative and quantitative research carried out with different stakeholders in order to identify the theme and unique character of Ráday Street and determine the product development and branding directions of this district's thematic street.

Results revealed that, even though its uniqueness is declining, the street is recognized for its gastronomy and culture -for locals-. To revive the soul of Ráday Street, complete experience packages which combine music, gastronomy and the environment, are recommended.

Keywords: destination, branding, positioning, image, thematic street

1. Introduction

In order to make the cultural life of District IX of Budapest more colorful and at the same time to increase the coordination of cultural events, the district municipality worked in cooperation with the Corvinus University of Budapest on a new and comprehensive cultural concept. This „mega” student project included the participation of 250 students (56 Hungarian teams and 7 international teams), 2 demonstrators, 3 lecturers (Kornélia Kiss, Ivett Pinke-Sziva, Gábor Michalkó), 2 doctoral students, and Dr. Simon Judit who did the planning and analysis. An important part of the cultural concept was the repositioning and rebranding of the district's thematic street, Ráday Street. According to the local government, Ráday Street lost much of its former attractiveness. Therefore, examination of the current situation as well as the identification of both the theme and unique character

which differentiates Ráday Street from its competitors was done in cooperation with the relevant actors: service providers, local residents, visitors and institutions.

In this context, the current study builds on destination positioning and branding theory in order to crystallize both, the key success and failure factors, in the repositioning process. The aim of the study was to explore: How do locals and tourists perceive Ráday Street? What developments can make Ráday Street differentiate itself? What kind of brand positioning is recommended? With this purpose, a multifaceted research was carried out. From the supply-side, interviews to 17 service providers as well as 600 local residents were conducted with help of a Hungarian-language questionnaire. From the demand-side, more than 280 international visitors were interviewed with a foreign-language questionnaire. Eventually, based on all these results, our product development as well as positioning and branding proposals are finally presented.

2. Literature review

In this article we explore the possibilities of Ráday Street as a thematic street by considering it as a destination and following the theoretical directions on destination positioning and branding. By destination we understand an area or place of tourist travel -and in this case more importantly- an experience that is intended to ensure the well-being of both, locals and tourists (Sziva, 2014). A thematic street can also be characterized by the supply-side approach of destinations: „Destinations thus become central elements of the tourism system, as they form demand-homogeneous supply units that provide tourists with a variety of services; and although services are compiled collectively, they are performed independently of each other” (Aubert, 2011, p.1). In the following sections the most important directions of destination positioning and branding are highlighted in order to crystallize the uniqueness of Ráday Street, aimed to determine the product development and branding directions.

2.1 Destination positioning

In today's fierce competition among destinations, differentiation from competitors is of primary importance (Evren & Kozak, 2018), even when it is a highly challenging task. Destination positioning refers to the process by which a destination is able to occupy a special place on the mental map of travelers through the crystallization of uniqueness and the developments based on it (Gartner, 1989).

Uniqueness as a functional attribute significantly contributes to the holistic experience, which helps maximize tourists' enjoyment during their stay and long-lasting place attachment. The functional attributes of a destination should characterize not only its practical utility but also its uniqueness, providing the value that tourists regard as essential and non-substitutable for fulfilling their substantive needs and desires. (Truong, Lenglet, & Mothe, 2018, p.215)

Then, a fundamental goal is to highlight unique, hard-to-copy, local resource-based characters that can represent the uniqueness of a destination in the long run (Pike, 2017). However, the positioning process can involve a number of difficulties:

- The destination can be characterized by multi-attributes (several unique characters at the same time), therefore synthesis is especially difficult;
- Reconciling the interests of individual actors is a major challenge;
- The Destination Management Organization has no influence on the actual service;
- Big noise: competitors' marketing and eWOM (Pike, 2017).

The key to success is finding a direction based on the consensus of each stakeholder group, which reflects the perception of locals, tourists and service providers, as a result of previous research and consultation (Pike, 2016).

2.2 Destination branding

Branding a destination demands the crystallization of unique values, on which both the product lines and offers, to be displayed to the segments, can be built. The importance of the brand positioning process is also emphasized by Cheverton (2002) by assigning the following steps to it:

1. broader positioning, which includes the process of segmentation, target grouping, and positioning, with the aim of differentiating it from competitors;
2. the so-called narrower positioning, definition of the values and advantages that comprise the identity of the branding organization, which describe the uniqueness, „core” and brand position of the organization;
3. brand interactions, developing all meeting points towards a narrower position when the consumer encounters the brand (this includes the entire marketing activity from product development to communication) and defining the brand elements (message, logo, slogan). All of this leads to a „total consumer experience” which creates an emotional surplus, an enjoyment of the consumer experience provided by the brand;
4. continuous evaluation, monitoring (as cited in Sziva, 2016).

The logo and slogan of a destination should be built on its uniqueness, previously identified, by avoiding stenciled solutions (Anholt, 2009). According to Papp-Váry (2014) a good slogan captures the character and story of the city, distinguishes it from other destinations, and can inspire tourists, investors, and last but not least locals. If a logo is average or meaningless, it can do more harm than good, however, a good logo can not only make the unique values clear, it can also follow the design expectations of the age (Papp-Váry, 2014).

The importance of branding destinations is debated among the international research community. Due to the complexity of the target areas, branding is one of the most difficult tasks, considering that it is difficult to show a direction embodied in a slogan or logo which represents the stakeholders, product lines and interests (Pike, 2005; Dredge & Jenkins, 2003). Recent studies have shown that brand elements such as logo and slogan are the least interesting and memorable elements for visitors within the decision-making process (Kladou, Kavartzis, Rigopoulou, & Salonika, 2017). Benefits do not compensate the effort (Beritelli, Reinhold, Laesser, & Bieger, 2015) as destinations increasingly lose their control over communication due to content seen on social media. Despite these facts, branding plays a key role in developing a consistent marketing strategy, which consequently makes destination communication more effective and credible (Dedeoğlu, Van Niekerk, Weinland, & Celuch, 2019; Konecnik Ruzzier, Antoncic, & Ruzzier, 2014). In this context, we definitely support the process of brand positioning, as well as the design and use of basic brand elements: logo and slogan.

3. Methodology

In order to answer the three aforementioned research questions which will lead to identify the theme and unique character of Ráday Street, both qualitative and quantitative research methods were applied.

Qualitative methodology comprised 17 in-depth semi-structured interviews with service providers operating in Ráday Street, mainly representatives of restaurants and attractions. They included 11 cultural institutions, 10 catering units and a hotel. Some of them fall into both categories, so they provided both hospitality and cultural services at the same time (e.g. Púder Bárszínház, If Jazz Café). The collected data was analyzed with quotations in accordance with qualitative traditions. The main topic of the interview was the image of Ráday Street and the increase of its competitiveness. The interviews took place in the fall of 2016 and were conducted by trained students.

Quantitative methodology was two-way. On the one hand, a survey questionnaire written in English, French and German was created in order to target foreign travelers. The survey was conducted in certain locations of Budapest such as the

Central Market Hall, Király Street and Gozsdu Court, and of course Ráday Street to more than 280 foreign visitors, in order to explore how well-known Ráday Street is. Foreign students in the area were also reached and participated in the survey through an online platform. Therefore, a sample (not random) was taken at each site within the framework of evaluative sampling. On the other hand, 600 local residents living in different parts of the district were targeted through a survey in Hungarian language. In this case we also used evaluative sampling. Both surveys were conducted in the fall of 2016 by trained students. Univariate and multivariate statistical methods were used in the analysis using SPSS software.

4. Results

4.1 Qualitative part

Regarding the visitors, 11 service providers indicated that they are mainly Hungarians (60-95%). Two said that the proportion of Hungarian and foreign visitors are 50-50%, and in three cases the majority are foreigners (60, 90 and 98%). One service provider indicated that the rate varies depending on the season: 20% foreign visitors and 80% Hungarian in winter, and vice versa in summer.

When asked about the uniqueness and current role of Ráday Street, the majority of service providers (13 cases) answered that the street no longer has any uniqueness and role, or rather its role is declining. The others emphasized the character of the pedestrian street as well as the cultural and gastronomic character, but at the same time they acknowledged the lack of a real brand for the street.

Dollhouse respondent, for example, mentioned that like nowhere else in the city, there are 55 restaurants with different profiles. According to SoulCafe representatives, Ráday Street now lives on its reputation gained 20 years ago and currently has no a leading role in the life of Budapest: „A ship without a captain”.

Respondent from If Jazz mentioned that the architectural beauty gives the street its uniqueness with theaters and galleries.

Representative of 2B Gallery emphasized: „The pedestrian street created during the urban rehabilitation of the 90s, which was still unique at the time, has now lost its uniqueness. There were no such streets back then, but they have been multiplying ever since (e.g. Mikszáth Square, Liszt Ferenc Square). Unfortunately, there was no profile update here, so since then it has not been figured out how to thematize the offer of the street. Therefore, it no longer stands out from the rest. The street shows signs of fatigue among too many competitors. Culture is worn out and restaurants and pubs alone are not enough”.

It was also underlined that: „This is the most organized of the eight thematic streets in Budapest (e.g. paving), but unfortunately it no longer has its uniqueness. In 95s -96s it was only Ráday Street and Liszt Ferenc Square. Everyone thinks it's an expensive neighborhood, even though it is cheaper than the party district. Unfortunately, everything closes at midnight, so no one feels like coming here, since you can stay in the downtown until 3 in the morning. Foreign tourists are hardly found here, students find it expensive, and Hungarians go to the party district” (Head of Soho Association).

There were respondents who said that the uniqueness of Ráday Street relies in its family atmosphere, but the street is also rapidly losing it. Others claimed that it was once the only place you could sit out on summer evenings, and nowadays the caterers start packing around 9:30 pm. They cannot argue to disturb residents because there are hardly a few residential houses in the surrounding buildings (the rest is also inhabited mainly by students and tourists). Unfortunately, very little of the original old shops remained, and these should/should have been promoted (e.g. palatine confectionery). As such, Ráday Street is obsolete. It does not have the meaning it did 20 years ago. In its current state, it could even be called the „Achilles heel” of the municipality and urban development. However, there is no point in talking about just one street, the development of the whole quarter needs to be rethought. Due to conflicts of interest, this will not change in the near future.

It has also been said that the street „no longer has any uniqueness because individual service providers are very unimaginative and unwilling to engage in any constructive collaboration. There was still life here around 2002, but since then it has completely disappeared. The caterers compete with each other and are constantly trying to get below each other in price, leading to a monochrome, poor quality offer. According to Balassa, Ráday Street is no longer a key player, but he is confident that it is emerging and will sooner or later return to the position he was in 10-15 years ago” (Representative of Cafe Intenzo).

Among the competitors of Ráday Street, Bartók Béla Street, Kazinczy Street, Liszt Ferenc Square and Gozsdu Court were most often mentioned by the interviewees. In addition to these, Király Street, Falk Miksa Street, KultUnio and Pozsonyi Street were included in the competitor analysis prepared by the students.

When asked about the theme and unique character that would be appropriate in order to differentiate Ráday Street from its competitors, the vast majority of service providers answered that it would clearly build on the cultural character. There were only two providers who would not rely primarily on culture but on gastronomy in the first place.

Regarding the range of events and programs in Ráday Street, it can also be seen from the answers that the majority of service providers and institutions organize programs that fit their own profile. There is a wide range of cultural offerings in Ráday Street evidenced by the number of different cultural programs available within a street. At the same time, representatives of restaurants indicated that certain issues, such as the silence regulation, are an obstacle to the organization of programs. Five service providers (restaurants and hotel) said they do not organize programs at all.

The increase in the traffic in Ráday Street is also related to the issue of addressing and involving local residents. Surprisingly, five of the service providers also stated that they did not consider as important to address the local population at all. Two mentioned that it would be convenient to create and operate a common website or Facebook page where all Ráday Street programs and services would be available (probably Ráday Soho's Facebook page, which contains some of the programs, is also unknown). It would be necessary to address local residents' attention to the entertainment and recreation opportunities available in Ráday Street. Marketing strategies oriented towards local residents was also highlighted by several respondents. In general, the interviewed service providers rated their relationship with the local population as good, smooth and conflict-free.

4.2 Quantitative part

Data was collected from 280 valid surveys to foreign visitors. More than half of the respondents (52%) were aged between 15-25, 26% were aged between 26-34, 10% between 35-45, 6% between 46-54, 5% between 55-65 and 2% between 66-74. The majority of participants were female 56%. According to their ethnic distribution, the majority of the respondents were German, British, French and American, which represent the most important tourist markets for Budapest. 99% of foreign respondents had a higher education (university college, postgraduate). The largest proportion of the surveyed foreigners (29.3%) came to Budapest with friends. They are characterized by a longer stay here, which also means that not only the most famous tourist attractions will be visited, but they will likely gain more in-depth knowledge of the city. Airbnb was the most popular accommodation among the respondents (26.4%), excluding those living in Budapest (30%).

In addition, 600 valid surveys from local residents were collected about the image of Ráday Street and related development opportunities. Regarding the age of the respondents: the majority (36.2%) belonged to the 15-25 age group, 23.8% to the 26-45 age group, 20.4% to the 46-65 age group, and 19.6% to the 66-74 age group. All age groups were addressed during the survey.

For those who knew Ráday Street or heard about it, it was worth asking a number of questions to help in mapping to further developing the image of the street and selecting the most suitable communication channels to promote Ráday Street. The figure below shows that 45.2% of the surveyed foreigners had already been to or heard about Ráday Street. A similar number (45.3%) had not heard of it. 9.4% of them might have visited it when they moved around Kálvin Square, but were not aware of it. At the same time, it is important to mention that from the students, who play a significant role in the sample collection, 59% knew Ráday Street. Examining those who came with tourism motivation, it can be said that only 31% knew Ráday, which is a small proportion. Another 5% of tourists have not heard of it and another 7% had visited the area but were not aware that they had been to Ráday (which can be traced back to visitor management problems).

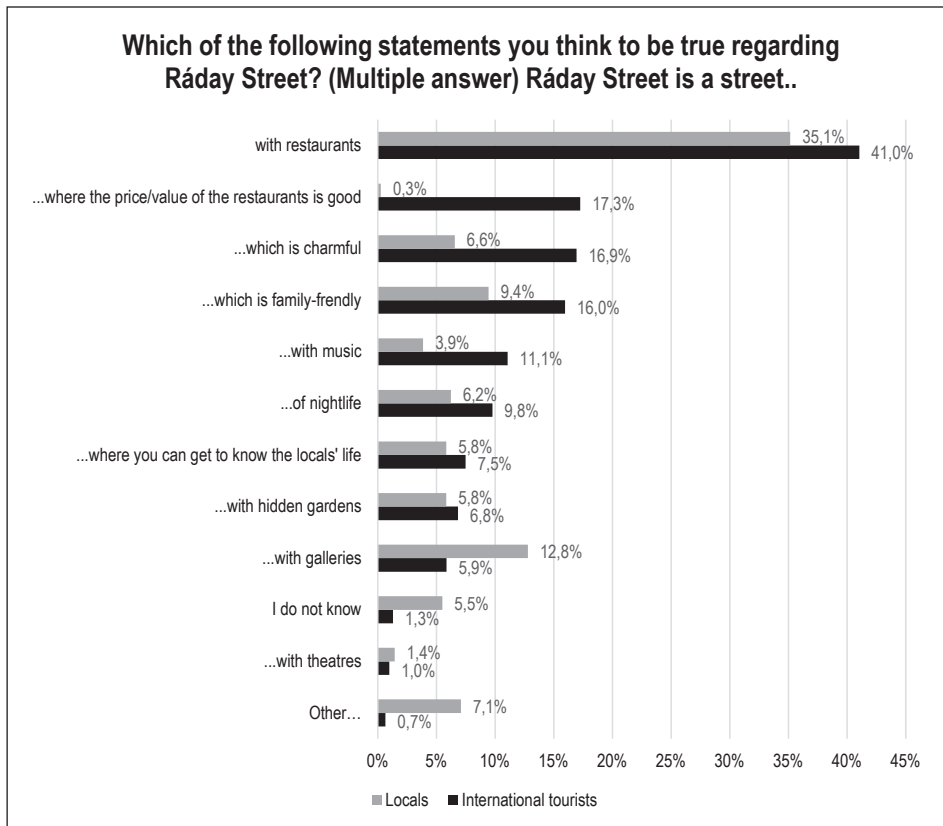
Among foreigners who knew Ráday Street it was seen that although it is not necessary to start positioning the street completely from the beginning -as its image is already mostly based on restaurants-, music and culture should be given more emphasis in marketing communications. Foreigners who heard about it mainly associated Ráday Street with restaurants, bars, eating and drinking. Music and cultural programs were not even mentioned.

Locals also associated Ráday Street with restaurants, but „home” is understandably the leading idea. The biggest difference compared to foreigners is that Hungarians -although few- also mentioned about culture, so they knew Ráday better and consider the street to have cultural opportunities.

The following figure also provides information about the image of Ráday Street and summarizes the findings so far (figure 1).

We asked foreigners and locals which of the following statements they thought was true for Ráday Street. Both foreigners and Hungarians agreed to the greatest extent that „Ráday Street is the street of restaurants”. 30.4% of the answers of foreigners and 35.1% of the answers of locals agreed that this statement is correct. In a smaller, but still a significant proportion of the foreigners agreed with the following statements: „Ráday Street has a good price/value ratio, for restaurants” (12.8%); „Ráday Street is charming” (12.5%); „Ráday Street is family friendly” (11.8%). They agreed with the statement „music street” only to a lesser extent, in the proportion of 8.2% of the answers. The „Street of nightlife” statement was endorsed at a similar rate of 7.2%, so there is absolutely something to look for in these areas during rebranding. The cultural line also needs to be strengthened in foreign communication, as only 4-5% of the respondents agreed with the following statements about Ráday Street, „getting to know the life of the locals” (5.5%) and „the street of galleries” (4.3%). A small proportion (0.7%) considered Ráday Street as the street of theaters, even the statement „street of hidden gardens” received more votes (5.1%).

Figure 1. Image of Ráday Street by locals and foreign visitors



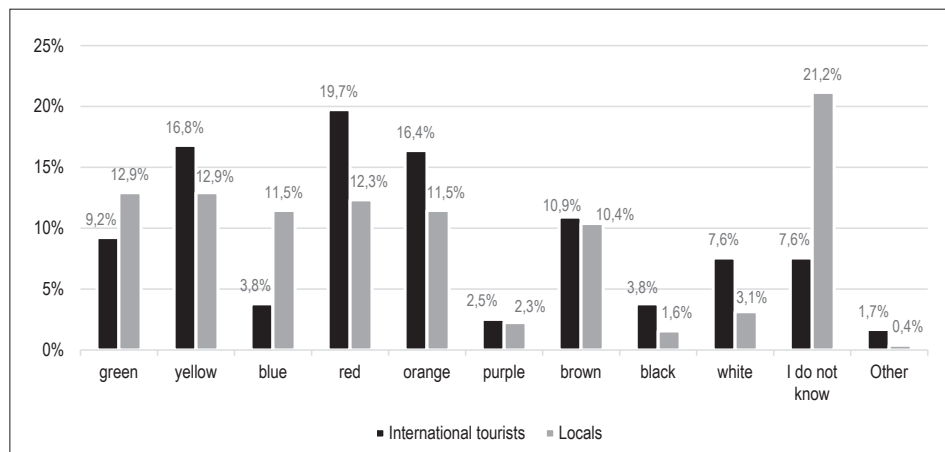
Source: Elaborated by the authors

It is also clear from figure 1 that foreign and domestic communication requires a different approach: apart from the fact that „Ráday Street is the street of restaurants”, for almost no other statement, the opinions of foreigners and locals were harmonized. According to the local population, the second truest statement after restaurants was „Ráday Street is the street of nightlife” (12.8%). They agreed with the „charming” adjective in 9.4%. The „Street of galleries” statement also received a relatively large number of votes (7.1%). The statement about the price/value ratio of restaurants was accepted by Hungarians in only 6.2%, which is less than half of the proportion of foreign responses. It is quite surprising that in the same proportion (5.8% -5.8%) the statement of local residents that „Ráday Street is the street of music” and „the street of hidden gardens” were accepted. Almost the same proportion (5.5%) endorsed the fact that Ráday Street is „family-friendly”. The statement „street of theaters” received twice as many votes from Hungarians as from foreigners, but even so it represented only 1.4% of the answers. The uncer-

tainty of Hungarians was indicated by the fact that, compared to foreigners, more than six times of their answers indicated that „I don't know”.

The design of the brand elements of Ráday Street (e.g. logo) was also aided by the information on the color of Ráday Street raised to the respondents. The figure below (figure 2) shows the percentage of responses. Foreigners clearly voted in favor of red with 19.7% of responses. The second most popular color among them was yellow (16.8%), followed by orange (16.4%). The local population was much less able to answer this question, the proportion of „I don't know” answer was high (21.2%). Those who responded, voted in the same proportion (12.9%–12.9%) for yellow and green. These were followed by red (12.3%), and by blue and orange with the same proportion (11.5%–11.5%). As revealed by the findings, red, yellow, and orange were the common denominators to both foreigners and locals.

Figure 2. Colors of Ráday Street by locals and foreign visitors

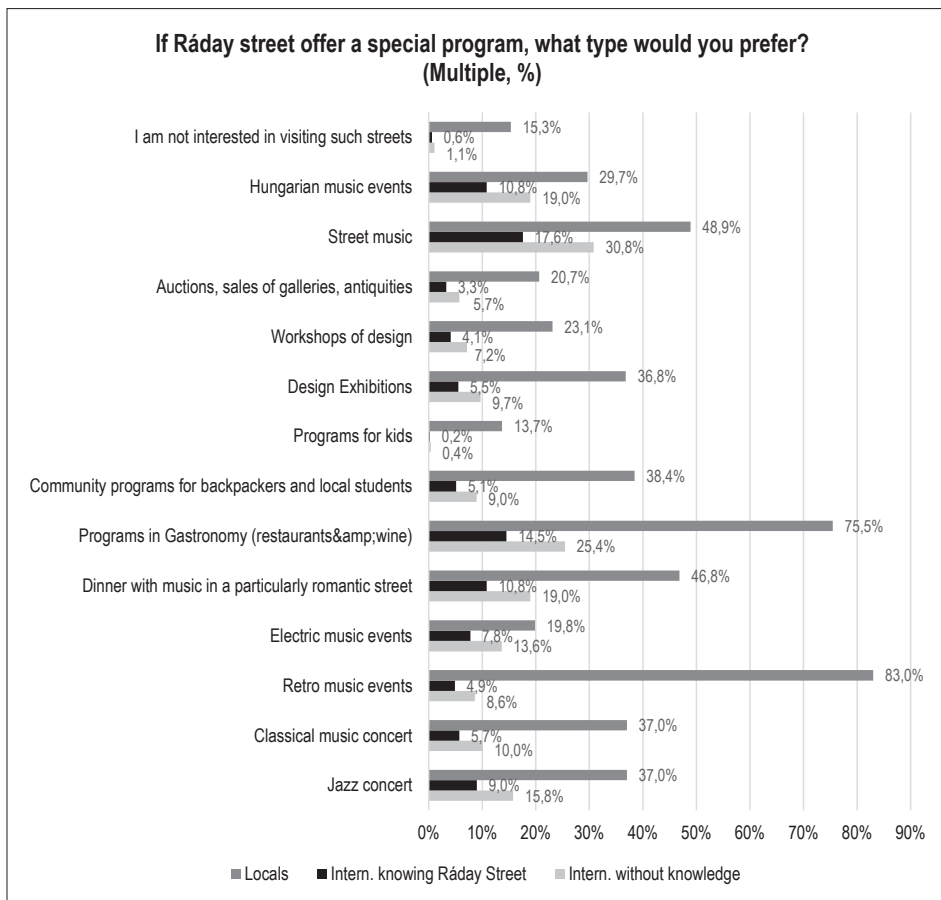


Source: Elaborated by the authors

In addition to the colors, defining the personality traits of the street can also help a lot in formulating the brand elements. The question of „What kind of personality do you think characterizes Ráday Street?” was answered through the evaluation of opposite pairs. The results showed that the masculine/feminine and young/old adjectives provoked indifference, so findings revealed that Ráday Street was considered as more romantic, loud, minimalist and a little more playful than disciplined.

Answers to the question „If Ráday Street would offer programs on a specific topic, which programs would you participate in?” are summarized in figure 3. There were several answers to this question, so our figure for foreigners shows the results obtained in the proportion of answers (487 in total).

Figure 3. Preference on special programs in Ráday Street by locals and foreign visitors



Source: Elaborated by the authors

It turned out that the interviewed foreigners mostly prefer music programs: almost 46.9% of the answers related to some kind of music program (jazz, classical, retro, electronic, Hungarian, street music). If we examine the music programs separately by style (figure 3), then gastronomic programs come first. Among the music program options, street music is the leading, and among the music styles, the interest in jazz is the highest (24.6%). Seeing the popularity of jazz, it is worth looking at the composition of respondents voting for jazz music by age groups: almost 53.6% belonged to the group of young adults (15–25), 33.9% of adults (26–45) and 12.5% for those over 46 years of age. Jazz concerts would mostly be attended in groups, with a couple, friends, or alone in nearly equal proportions. Interest in music programs is followed by gastronomy with a response rate of 19.3%. This is probably related to what is thought for Ráday Street, since it turned

out from the previous answers that the strongest image element of Ráday Street was gastronomy. It is also clear from the other answers that the pairing of gastronomy and music may be the best direction for the repositioning of Ráday Street: 14.2% of the answers for musical dinner, 13.6% for street music and 11.6% for jazz music (within all music programs, jazz leads by 24.6%). There was only a small demand for Hungarian (7.4%), electronic (6.2%), classical (5.3%) and retro (2.9%) music programs. Demand for design exhibitions and community programs for students were similar to that for classical music concerts (5.3%–5.3%). Far fewer people would attend programs in design workshops, galleries and antique shops (3.3–3.5%) and show the least interest in children's programs (1.4%).

The locals gave slightly different answers to the same multiple-answer question (1571 responses were received), therefore foreign visitors should be addressed with different programs than the Hungarians. The main agreement was that Hungarians also participate mainly in music programs (48.6%), but their taste in musical style was different: the most popular were retro music programs (32.5% of all answers concerning music), followed in equal proportions by jazz (14.5%) and classical music (14.5%). 11.6% of the respondents preferred Hungarian music, and electronic music received the least interest (7.8%). Street music programs (whatever their style of music) received 19.1% of responses within responses to music. The tastes of Hungarians and foreigners were similar in the fact that Hungarians are happy to combine music and gastronomy: 8.9% of the respondents voted for a musical dinner. If we examine the music programs separately by style (figure 3), then in case of the Hungarians -compared to all the answers- the retro music programs take the first place and the gastronomic programs took the second place. Hungarians demanded much more community programs for students (7.3%) and design exhibitions (7.0%) than foreigners. Far fewer people would attend programs in design workshops, galleries and antique shops (around 4%), with the least interest in children's programs (2.6%).

Answers to the question „Where did you hear about Ráday Street” showed that a lot about the role of communication channels that can be involved in the promotion of Ráday Street. Clearly, a recommendation from friends leaded (28.5%), followed by others (e.g. some media appearance or accidental discovery). Tripadvisor (10.6%) as well as accommodation recommendations (9.8%) also played an important role. Facebook (3.3%), guided tours (3.3%) and other websites (3.3%) were equally less important, but this may also be due to the fact that there was very few English language content available for Ráday Street on the Internet and Facebook.

5. Conclusion

Overall, it can be said that from the interviews to 17 service providers from Ráday Street showed that the majority of guests are mainly Hungarians. When asked about the uniqueness and current role of Ráday Street, the majority of service providers claimed that the street no longer has any uniqueness and role, or its role is declining. Considered as a „ship without a captain,” which lives on its reputation built 20 years ago, is insignificant among too many competitors. The terms „Budapest Street”, „Restaurant Street” and „Flavor Street” were also uttered.

It can be seen that foreigners who knew Ráday Street have an image closely related to restaurants, therefore is not necessary to start positioning the street completely from the beginning. However, music and culture should be given more emphasis in marketing communications. Foreigners who heard about „Ráday Street” for the first time related it to restaurants, bars, eating and drinking. Music and cultural programs were not even mentioned.

Locals’ main image of Ráday Street is „home”, followed by „restaurants”. However, compared to foreigners, Hungarians also associated the street with culture, which reveals a wider knowledge about the street and the cultural opportunities.

Both foreigners (30.4%) and Hungarians (35.1%) agreed to the greatest extent that „Ráday Street is the street of restaurants”.

If Ráday Street offered any specific programs on one topic, both foreigners and locals would participate in music programs, although their musical tastes differ: the interest in jazz is the highest among foreigners, and the locals ranked retro music programs first. Foreigners who did not know Ráday Street would prefer music programs (55.8%), in this case it is not jazz but Hungarian music that leads (19.4%).

Regarding the development proposals, we would like to highlight that we started to examine Ráday Street as a non-thematic street, because together with the surrounding attractions, it is necessary to see the street and treat it as a kind of cultural quarter, including the surrounding attractions and access gates (Nehru beach, Central Market Hall). The uniqueness of Ráday Street is due to the diversity of restaurants, the multicultural offer, the romantic (jazz) entertainment and the good location. The resulting special atmosphere can attract both locals and foreigners. In addition, the street offers a homely environment to attract a wide range of generations from young to old. To turn these all to action it is recommended to create complete experience packages in which music, gastronomy and the environment can be enjoyed together.

Regarding the design of brand elements for Ráday Street, it was found that for both foreigners and locals the street colors were red, yellow, and orange; which

shows connection with lively and positive feelings. In regards to the street personality traits, it was seen as romantic, loud, minimalist and playful, so it is recommended to develop a brand concept in this direction.

6. Acknowledgement

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Researches supporting the surrounding business and social environment Home sweet home – Residential well-being in District 9 of Budapest

Kornélia KISS, Sára HEGEDÜS, Edina KOVÁCS, László KÖKÉNY,
Ilona MOLNÁR-CSOMÓS, Gábor, MICHALKÓ

Abstract

The natural and man-made environment in which we live our life plays an important role in quality of life and well-being. In the present study based on the theory of residential well-being we examine the relationship between environmental (or as it is referred in the literature, neighbourhood) characteristics and well-being using a database from a research conducted in District 9 of Budapest during the fall of 2016. Our paper – besides its contribution to the academic literature – can support the municipality of District 9 in planning, in identifying development priorities, in allocating financial resources and in fine-tuning the key elements of its destination marketing.

Keywords: quality of life, well-being, residential well-being, environment, neighbourhood characteristics

1. Introduction

Since the end of 1960s governments of developed countries have gradually switched their focus from economic growth of the nation to quality of life of people. Despite the tremendous amount of quality-of-life research carried out since then, the theory is still blurred, however most researchers agree that it has several domains combined into an objective pillar referred as welfare, along with a subjective pillar consisting of the person's individual life evaluation referred most often as subjective well-being or well-being (Michalos, 2014; Michalkó, Kiss & Kovács, 2009; Cummins, 2005; Felce & Perry, 1995).

Dolan, Peasgood and White (2008) in a study synthesizing one and a half hundred empirical studies state that well-being can be related to seven domains, namely 1) income, 2) personal characteristics, 3) narrower environment, 4) values and attitudes, 5) human relationships, 6) activities done and 7) the wider environment. Of particular importance is the environmental domain, which is related to the natural and man-made environment in which we live our life.

Nowadays, improving the quality of life is important not only for a nation, but also for smaller territorial units, provinces/counties and settlements, and is increasingly an overriding goal. Today, studies examining the liveability of cities, human development, the quality of life and well-being of locals have gained considerable space in both academic and applied research.

Environmental characteristics include those that are manageable and some that are not (Miller & de Roo, 2004). Among the former, the range of factors that can be influenced by the municipality is also of paramount importance for local policies, strategies and action plans. In the present study, we define the concept of residential well-being starting from the concepts of quality of life and well-being, and then present its measurement possibilities. We then examine the relationship between environmental or as it referred in the literature, neighbourhood characteristics and well-being using a database from research conducted in District 9 of Budapest during the fall of 2016.

2. Literature review

2.1. *From quality of life to residential well-being*

Much of the quality-of-life research on the path to a 'good life' in recent decades has linked quality of life to the objective factors that determine human existence and / or their subjective reflection. Veenhoven (2000) distinguishes between chances for good life (*opportunities*) and how the good life itself is realized after all (*outcome*). Based on this distinction four different but interrelated categories of quality of life have been specified: viability of the environment, vitality of the individual, usefulness of life judged from the outside, and subjective evaluation of life (Veenhoven, 2000). According to the widely accepted idiographic approach of quality of life, besides the objective pillar measuring living conditions and the subjective pillar reflecting the individual's satisfaction with each condition, it also includes a subjective filter to determine the significance of the given domain in the individual's own value system (Felce & Perry, 1995). In the international literature quality of life and well-being are often used as synonymous concepts (Sirgy, 2012; George, 2006; Rahman, Mittelhammer & Wandschneider, 2005; Cummins,

1997). While the material-focused objective pillar of quality of life is interpreted as *welfare*, the subjective pillar is perceived as *subjective well-being* (Dolan et al. 2008; Diener, Suh & Oishi 1997).

Well-being is a complex concept, and its domains are inevitably interrelated (Sirgy, 2012). Although its components are not exclusive and universal in all models, physical well-being, financial well-being, social inclusion, work and leisure activities, self-realization opportunities, and quality of the close physical environment are the most often listed ones (Rahman et al., 2005; Cummins, 1997; Endicott, Nee, Harrison & Blumenthal, 1993; Campbell, Converse & Rodgers 1976). Several studies have proven that being satisfied with one's residential environment plays a significant role in life quality of people (Balestra & Sultan 2013; Francescato, 2002; Bowling & Windsor, 2001). The residential aspect of well-being refers to the combination of several attributes of one's residential environment (Mridha, 2020) and *residential satisfaction* combines the person's living conditions and the subjective evaluation of those (Francescato, 2002).

Just as in the case of quality of life in general, residential satisfaction is also made up of both objective and subjective components regarding the residence itself and its environment. As previous researchers have stated, objective components could be the home ownership, type of dwelling, value and size of the actual real estate, while the subjective component is merely influenced by the individual's expectations and subjective evaluation of the property itself and its environment (Elsinga & Hoekstra, 2005; Lu, 1999).

According to the findings of Mridha (2020) the five main components of residential well-being are management and maintenance of the property, its architectural features, neighbourhood, neighbours, availability of nearby recreation facilities and ambient environment. Balestra and Sultan (2013) mention the physical condition of the real estate, conditions of the neighbouring homes, and housing affordability as the three most important aspects of housing affecting people's residential well-being. Many researchers highlight that the socio-demographic characteristics of the investigated target group is intertwined with the level of residential satisfaction (Mouratidis, 2017).

Previous research has undoubtedly shown that coverage and access to green urban areas and waters are positively correlated with residential satisfaction, while proximity to less uplifting areas, like an abandoned land, shows negative correlation (Krekel, Kolbe & Wüstemann, 2016; White, Alcock, Wheeler & Depledge 2013). Paying attention to the environmental component of residential well-being and how it affects the level of residential satisfaction is significant as designing and building liveable environment for people is key for reaching and maintaining social sustainability (Mouratidis, 2017).

2.2. The measurement of residential well-being

As discussed above, differences in the content of the term of residential wellbeing can be found in the literature, partly due to social and cultural differences. Accordingly, the measurement methods are also varied. In this study, we only seek to present forms of measurement that are relevant from our primary research's point of view. In the following, the independent and dependent variables found in literature are going to be summarised.

Existing literature points out that residential satisfaction has three important determinants: 1) sociodemographics and socioeconomics, 2) housing conditions and 3) neighbourhood characteristics (Wang & Wang 2016). Also Balestra and Sultan (2013) propose three groups of variables to measure residential wellbeing: 1) Individual and household attributes containing sociodemographic data, and variables like household income or status. 2) The second sets of variables are characteristics and conditions of the home environment like heating or bath/shower opportunities or subjective perceptions about the dwelling. 3) The third set includes subjective perceptions of the individuals' neighbourhood, which can be examined using objective characteristics and subjective evaluations as well.

Among the independent variables, subjective elements as perceived characteristics and specific objective factors can be found, as seen above in OECD's (Balestra & Sultan, 2013) research. Most of the researches (Wang & Wang 2016; Balestra & Sultan 2013) apply both of them, but some of the studies use only objective characteristics as independent variables (Krekel et al., 2016), while others (Mouratidis, 2020) examine only subjective elements in addition to sociodemographic variables.

While some of the researches – like Balestra and Sultan (2013) – seek to analyse residential well-being in a comprehensive way, examining wide range of factors, other studies only focus on determining one or a few factors of it. For our study, the impact of municipal services on well-being is of paramount importance. Krekel and his colleagues (2016) focused on the effect of urban green areas on residential well-being. Although Dekker (2011) and colleagues examined satisfaction in housing estate, variables related to satisfaction with condition and services of the neighbourhood also appeared in their research. In their study Wang and Wang (2016) assumed that the importance of affective elements (feelings or experiences) – caused by daily activities at home and in the neighbourhood – are also not negligible in residential satisfaction. Although Buchecker and Frick (2020) focused on place attachment in their research, the results also revealed that people's good experiences in their environment, their sense of local community and their local social contacts – as independent variables – are important factors.

The content and measurement of residential satisfaction is varied in the researches: cognitive (satisfaction) and affective (feelings or experiences) elements can also be examined. Residential satisfaction (Balestra & Sultan, 2013; Dekker, 2011; Wang & Wang, 2016), subjective well-being (Mouratidis, 2020) or neighbourhood satisfaction (Ciorici & Dantzler, 2019) are just some of the names of independent variables we encounter when reviewing the methodological part of some articles.

In terms of specific methodological considerations, Likert-scales are often (Bonaiuto, Fornara & Bonnes 2003; Dekker, et al., 2011; Ciorici & Dantzler, 2019; Balestra & Sultan, 2013) used to measure residential satisfaction, especially for dependent variables, but also for independent ones that measure subjective perceptions. Not only scales but also binary variables are used to measure the perceived properties of housing or neighbourhood, like in the study of Balestra and Sultan (2013). When examining the objective elements – depending on the determinant to be examined – we can also encounter nominal, ordinal, interval and ratio scale variables.

3. Material and method

In the autumn of 2016, the local municipality of District 9 – where the Budapest campus of Corvinus University of Budapest is located – has started a cultural concept development in order to make the cultural life of the district more diverse and to be able to coordinate the cultural events more effectively. During the concept development two major target groups were identified, the cultural attractions and programs were intended to address both the residents of the district and its visitors as well. In cooperation with the municipality the Department of Tourism at Corvinus University has been invited to carry out the research that was intended to form the basis of the future cultural concept. In this study, we present the results referring to the relationship between neighbourhood characteristics and well-being based on the survey examining leisure time consuming habits of the residents of the district. The aim of the paper is to answer the following questions: RQ1) What are the main factors that local people's evaluation of neighbourhood characteristics shape? RQ2) Can local residents be grouped along their opinion on neighbourhood characteristics? RQ3) What is the relationship between neighbourhood characteristics and the factors formed from them and well-being?

3.1. Sampling and main features of the sample

Research was carried out using a combined quantitative research method of personal and online data collection by arbitrary sampling. Our database contains a total of 682 responses after data cleaning. The average age of our respondents is 42.06 years (with a standard deviation of 21.40 years). 37.0% of the respondents

are male and 63.0% are female. Of these, 40.5% are single, 21.7% are married or live with someone, 1.2% are married but live separately, 10.4% are unmarried but live together with their spouse, 11.0% are divorced and 11.4% of them are widows. 5.9% of the respondents have a primary education, 47.5% have a secondary education, and 40.6% have a higher education. Most are employed (32.0%) and students (28.5%), with 4.4% self-employed, 2.2% unemployed and 26.7% retired. Those of them employed work an average of 38.13 hours a week (standard deviation 13.37 hours).

3.2. Method of data collection

The questionnaire, containing questions of the research previously prepared by the local government and the related data surveys of the Central Statistical Office were tested in two rounds. The personal and online data collection took place in October-November 2016, organized by the Department of Tourism of Corvinus University of Budapest.

A total of 40 questions were included in the five blocks of our questionnaire. The first block contained 13 questions regarding the demographic characteristics and financial situation of the respondents. The second block of the questionnaire contained questions on leisure time activities (12 questions), the third on district characteristics (4 questions), and the fourth on a certain street of the district, Ráday Street (9 questions). The last two-question block of the survey was used to measure well-being with one question regarding happiness and one related to satisfaction.

The variables related to neighbourhood characteristics are the independent variables (17) and we used well-being dimensions as dependent variables (2, happiness and satisfaction). These were examined using a five-point Likert scale, where „1” meant „strongly disagree” or „have a negative opinion” and „5” meant „strongly agree” or „have a positive opinion”. In our research, neighbourhood refers to the district.

3.3. Methods of analysis

Univariate and multivariate statistical methods were used in the analysis conducted in SPSS software. In addition to the basic descriptive statistics (mean, standard deviation, distribution), a number of tests were used in the analysis. We first examined the normal distribution of the main statements using the Shapiro-Wilk test. This test functions better especially in the case of a small sample than the Kolmogorov-Smirnov test, but with a larger sample it is also more effective, so for this reason we used Shapiro-Wilk test. In addition, we used principal component analysis with Varimax rotation, and cluster analysis by Ward's method. These helped us to narrow down each segment and form different groups. Finally, Pear-

son's correlation analysis was used for metric variables and the Mann-Whitney test was used for non-metric variables. The latter test is used when the distribution is not normal, two groups are compared (Malhotra & Simon, 2009).

4. Results

The average values of the neighbourhood characteristics (17 items) and well-being dimensions (2 items) included in the study are summarized in Table 1. In the case of well-being variables, almost no difference can be observed. However, in the case of neighbourhood characteristics, the differences are significant. Residents have the least good opinion of services related to transport, but they have positive opinion about the pedestrian traffic.

Table 1. Descriptive statistics of the variables included in the study

	Mean	Standard deviation	Relative standard deviation	Median	Mode
Pedestrian traffic	3.61	0.90	0.25	4	4
Parks, green spaces	3.59	0.98	0.27	4	4
Playgrounds	3.54	0.88	0.25	4	4
Recreation possibilities in general	3.50	0.84	0.24	3	3
Cultural services in general	3.50	0.87	0.25	3	3
Municipal customer service	3.40	1.04	0.31	3	3
Community spaces	3.38	0.87	0.26	3	3
Leisure services provided by the municipality	3.33	0.96	0.29	3	3
Sport facilities	3.32	0.87	0.26	3	3
Information on local affairs	3.15	0.93	0.30	3	3
Public safety	3.08	0.97	0.32	3	3
Cycling	3.07	0.99	0.32	3	3

	Mean	Standard deviation	Relative standard deviation	Median	Mode
Condition of sidewalks	2.84	0.92	0.32	3	3
Public cleanliness	2.73	1.05	0.38	3	3
Noise pollution	2.70	1.03	0.38	3	3
Accessibility	2.67	0.96	0.36	3	3
Parking facilities	2.52	1.06	0.42	2	2
Satisfaction with life	3.95	0.93	0.24	4	4
Happiness	3.96	0.87	0.22	4	4

Source: own editing

4.1. Result of factor analysis

Factor analysis was performed using principal component analysis with Varimax rotation. Out of the 17 variables included in the study, five factors were set up a priori approach. According to the eigenvalue analysis, four factors should be made, but in this case, one factor would contain only one statement. For this reason, we looked a priori approach at the two-, three-, and five-factor solutions. The main criterion values are summarized in Table 2.

Table 2. Primary results of factor analysis based on critical values

Critical values	2 factors	3 factors	4 factors	5 factors
KMO value	0.861	0.861	0.861	0.861
Bartlett test - Chi-square result	2139.989***	2139.989***	2139.989***	2139.989***
Communalities	>0.341	>0.370	>0.496	>0.561
Total explained variance	47.642%	57.989%	63.925%	68.771%
Factor weights	>0.486	>0.515	>0.524	>0.555

Note: ***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$

Source: own editing

It is clear from Table 2 that the best minimum and critical values were obtained for the five-factor solution. Community values are above 0.25, while factor weights are above 0.4. Thus, according to the a priori approach, we used this breakdown. The KMO value is above 0.7, so the fit is correct, while based on the Bartlett test, hypothesis H_0 can be rejected, i.e. the correlation matrix of the observed variables is not a unit matrix. Finally, the explained variance ratio reaches the generally accepted minimum of 60% in two cases (four- and five-factor solutions). Overall, the five-factor a priori approach proved to be the best solution. The 17 items were organized according to the rotated factor matrix into the five factors, which are shown in Table 3. This was complemented by an examination of the reliability of the scales added to the factors, based on Cronbach's alpha values, as well as an examination of the level of confidence that a particular item would take if it were removed from the other items in the factor.

Table 3. Results of five factor analysis

	<i>Components</i>					<i>Cronbach's alpha values</i>	<i>Cronbach's alpha values when the given item is deleted</i>
	Basic conditions	Community spaces	Municipal services	Leisure and recreation	Transport		
Public safety	0.794	-0.010	0.005	0.287	0.053	0.783	0.738
Public cleanliness	0.775	0.098	0.128	0.183	0.271		0.682
Noise pollution	0.682	0.202	0.185	-0.097	0.107		0.763
Accessibility	0.649	0.183	0.401	-0.110	0.232		0.731
Parks, green spaces	0.167	0.836	-0.031	0.211	0.145	0.829	0.694
Playgrounds	0.055	0.821	0.172	0.068	0.216		0.781
Community spaces	0.140	0.764	0.164	0.258	0.137		0.802
Leisure programs provided by the municipality	0.125	0.141	0.756	0.359	-0.005	0.787	0.681
Information on local affairs	0.285	0.133	0.704	0.163	0.086		0.758
Municipal customer service	0.125	0.002	0.697	0.316	0.132		0.688

	<i>Components</i>					<i>Cronbach's alpha values</i>	<i>Cronbach's alpha values when the given item is deleted</i>
	Basic conditions	Community spaces	Municipal services	Leisure and recreation	Transport		
Recreation possibilities in general	0.092	0.132	0.221	0.776	0.060	0.792	0.691
Cultural services in general	-0.021	0.193	0.340	0.766	-0.004		0.683
Sports facilities overall	0.108	0.389	0.175	0.631	0.190		0.776
Cycling	0.235	0.243	0.028	0.169	0.732	0.713	0.579
Parking facilities	0.099	0.098	0.464	-0.062	0.685		0.694
Pedestrian traffic	0.214	0.365	-0.176	0.268	0.617		0.656
Condition of sidewalks	0.525	0.101	0.200	-0.117	0.555		0.669

Source: own editing

The factors were named based on the items included. The factor weights were almost the same and each factor had a minimum of three and a maximum of four statements. The first factor was named Basic conditions, followed by Community spaces as the second one, the third is Municipal services, the fourth is Leisure and recreation, and the fifth is Transport.

4.2. Result of cluster analysis

We tried to form groups from these factors by hierarchical cluster analysis (based on the Ward method). However, we had difficulties as based on the 50% approach according to the coefficient column, we should have formed nine to ten clusters, although there is no big jump based on the elbow criterion, which means that the possible number of clusters could range from two up to thirteen. We first tried to create seven clusters, but then 10% of the 35 cells (seven clusters multiplied by five factors) had a standard deviation greater than one. The same was true for the nine-cluster solution in terms of proportions. In addition, we would have obtained very fragmented results in the demographic analysis, so again we chose the a priori decision and created two clusters. At this time, the possibility of

explanation was strengthened, but the test results were weakened when examining the difference. This is because there was no significant difference between the two groups for one factor. The other disadvantage of the two-cluster solution is that the number of sample elements observed in the two groups is not the same, and we obtained variances above 1 several times. Nevertheless, the established research goal (examination of well-being dimensions) is best supported by this result, because the strongest difference between the two groups is manifested in whether the residents perceive each element positively or negatively (Table 4).

Table 4. Results of cluster analysis

		Residents with negative opinions	Residents with positive opinions	Total sample
N		233	56	289
Basic conditions	<i>Average (standard deviation)</i>	0.019 (0.95)	-0.080 (1.20)	0.000 (1.000)
Community spaces	<i>Average (standard deviation)</i>	-0.108*** (1.03)	0.449*** (0.72)	0.000 (1.000)
Municipal services	<i>Average (standard deviation)</i>	-0.077** (1.03)	0.318** (0.82)	0.000 (1.000)
Leisure and recreation	<i>Average (standard deviation)</i>	-0.127*** (1.02)	0.530*** (0.68)	0.000 (1.000)
Transport	<i>Average (standard deviation)</i>	-0.287*** (0.86)	1.196*** (0.58)	0.000 (1.000)
Age	<i>Average (standard deviation)</i>	39.98 (20.16)	45.18 (22.36)	40.99 (20.67)
Number of working hours	<i>Average (standard deviation)</i>	38.06 (12.14)	33.62 (15.45)	37.34 (12.76)
Gender	<i>Male (%)</i>	41.2	37.5	40.5
	<i>Female (%)</i>	58.8	62.5	59.5

		Residents with negative opinions	Residents with positive opinions	Total sample
Marital status	<i>Unmarried, single (%)</i>	41.6	33.9	40.1
	Married and living together (%)	27.7	30.4	28.2
	Married and living separately (%)	1.3	0.0	1.0
	Unmarried but living together (%)	10.0	10.7	10.1
	Divorced (%)	8.2	10.7	8.7
	Widow (%)	8.2	12.5	9.1
	Other (%)	3.0	1.8	2.8
Highest level of education	<i>Elementary studies (%)</i>	7.3	8.9	7.6
	Secondary studies (%)	46.8	48.2	47.1
	Higher education (%)	40.3	37.5	39.8
	PhD (%)	5.6	5.4	5.5
Employ- ment	<i>Student (%)</i>	27.9	23.2	27.0
	Employed (%)	38.2	30.4	36.7
	Self- employed (%)	4.3	0.0	3.5
	Unem- ployed (%)	2.1	1.8	2.1
	Retired (%)	23.2	37.5	26.0
	Other (%)	4.3	7.1	4.9

		Residents with negative opinions	Residents with positive opinions	Total sample
Number of years lived in District 9	<i>Average (standard deviation)</i>	12.77* (15.35)	18.63* (16.79)	13.92 (15.77)
Number of years lived in District 9	<i>He/She always lived here (of total) (%)</i>	17.2	14.3	16.6

Note: ***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$

Source: own editing

Overall, it can be said that there is a significant difference only along the factors, except for the one related to the assessment of Basic conditions. The biggest difference in the opinion of the two groups is in terms of Transport and Leisure and recreation. In case of the group of residents with a negative opinion, it is worth nuancing the results by saying that their opinion is less negative than that of the other group compared to the average. There is a smaller group who have a very good opinion of everything, while the majority evaluate the neighbourhood characteristics more negatively than average.

4.3. Relationships related to well-being dimensions along opinions on the neighbourhood characteristics

Subsequently, we looked at the points of association with the well-being dimensions (life-satisfaction and happiness) with both of the components obtained during the factor analysis (correlation analysis) and the groups obtained during the cluster analysis (Mann-Whitney test). We first examined the results of the correlation analysis. The results are summarized in Table 5.

Table 5. Results of correlation analysis

	Basic conditions	Community spaces	Municipal services	Leisure and recreation	Transport
Satisfied	0.241***	-0.112	-0.029	0.153**	-0.036
Happy	0.226***	-0.066	-0.085	0.096	-0.008

Note: ***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$

Source: own editing

In the cluster analysis, there was no difference in how well the services were perceived by the residents, only in the case of the Basic conditions. However, now in the well-being dimensions, in both cases, the correlation is significantly positive with moderate relationship strength, i.e., the higher a resident evaluate the neighbourhood characteristics factors, the happier and more satisfied he or she is with his/her life. In all other cases, with one exception, the answers are neutral. Satisfaction is significantly positively related to Leisure and recreation, so it can be said that even the latter factor is subject to a higher judgment in terms of correlations. Overall, the Basic conditions factor in the segmented assessment of the neighbourhood characteristics does not form the field of essential break points, yet it may be the most important influencing element in the well-being dimension.

Based on all this, we do not expect many significant correlations in the case of clusters. The Mann-Whitney test was used to judge the two non-parametric groups (because of the two clusters). We did not use analysis of variance because, according to the Shapiro-Wilk test, we cannot speak of a normal distribution for any of the items included (P values are 0.000). The results of the test statistics are summarized in the Table 6 below.

Table 6. Mann-Whitney test result

Examined item	Grouping criterion	Average ranks of grouping criteria	Value of test statistic (U) [χ^2 (1)]	P value
Satisfaction	<i>Resident with a negative opinion</i>	137.52	5517.0	0.266
	<i>Resident with a positive opinion</i>	150.33		
Happiness	<i>Resident with a negative opinion</i>	139.41	6111.5	0.792
	<i>Resident with a positive opinion</i>	142,37		

Note: ***: $p < 0.001$; **: $p < 0.01$; *: $p < 0.05$

Source: own editing

As it might be expected for clusters, there is no significant correlation for well-being dimensions. Thus, it can be said that the two cluster solutions provide a general picture of the perception of the neighbourhood characteristics, however, this is not sufficient for deeper correlations in the well-being dimensions. However, based on the averages, it seems that those with a positive opinion are also somewhat happier and more satisfied with their lives.

5. Conclusions

Nowadays, the econometric line of research has grown into the only recognized field of quality-of-life research based on economics (Morrison, Tay & Diener, 2010). These studies use econometric models, economic and social statistics and data from quantitative surveys to assess the extent to which certain domains contribute to well-being (Dolan et al. 2008).

In our study we examined the relationship between neighbourhood characteristics and well-being. Regarding the question of what categories can be identified within the neighbourhood characteristics (RQ1), a total of five significantly distinct dimensions were obtained from factor analysis. These factors group the infrastructure elements (Basic conditions, Transport, Municipal services) and the factors related to leisure use (Leisure and recreation, Community spaces) well. We also tried to create groups from the five factors by cluster analysis, focusing mainly on the direction of the opinion due to the focus on our second question (RQ2). At this time, we saw that the opinion of the vast majority tends to be more negative in relation to the average of the whole group, while there is a minority who thinks explicitly positively about almost all the dimensions involved (except for the Basic conditions factor). However, the negative opinion was less negative than the positive was positive. Those who think more positively are somewhat older, mostly retired, and have lived in the district for significantly more years. The strongest difference can be observed between the two groups in the case of the Transport factor, but there was also a strong significant difference in the cases related to the Leisure and recreation and Community spaces. The factor related to Basic conditions seems to be more important in the case of the well-being dimensions (and to some extent also in the Leisure and recreation options), as this factor was significantly positively related to both satisfaction and happiness (RQ3). When it comes to evaluating Basic conditions, we can say the most about how it is related to well-being dimensions. In conclusion, we even looked at the points of connection with the well-being dimensions in the case of clusters. We did not find any correlation in any case, although those with a positive opinion chose a higher value on average for well-being issues, as well. It can be said that perceptions of well-being do not increase significantly from someone making a more positive statement overall about items that describe neighbourhood characteristics. Thus, in our study, we came to the conclusion that opinions about neighbourhood characteristics need to be examined in detail in the context of the dimensions of well-being.

The validity of our research findings is limited by a number of factors, of which the following are the most important. 1) The database available was only suitable for examining one area of residential well-being. 2) The neighbourhood characteristics identified during the literature review and the variables used to measure

well-being are consistent, however, the interpretation of the neighbourhood in others' research (typically areas accessible within 15 minutes) and in our own research (the district as a whole) differs. 3) Due to the arbitrary sampling, our sample was not representative of the population of the district along the main demographic factors, among the main demographic parameters, our sample best approximated the distribution of the population in terms of age.

In the course of our research, we identified several other possible research directions: based on the available research results, it may be worthwhile to develop a questionnaire for measuring residential well-being and its factors using validated scales, and then make a longitudinal survey on a representative sample of major demographic variables. In addition to contributing to the academic literature, this could also play an important role in making settlements more liveable, could support the planning process, identifying development priorities, allocating financial resources and fine-tuning the settlement marketing for local municipalities.

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Concept map to support domestic tourism at the time of the epidemic

Ilona MOLNÁR–CSOMÓS

Abstract

The study aims to help mitigate current and future pandemic impacts, especially on domestic tourism, by exploring consumer habits that have an impact on various travel arrangements, especially leisure travel, as well as information related to travel arrangements. The research was based on a questionnaire survey carried out for reconnaissance purposes with the involvement of Hungarian and foreign respondents (946 fill-in, 871 valid answers). The stabilization of domestic tourism and the continued support for stabilization efforts are of paramount importance, in line with the current restrictions. The existence of ongoing support could also be facilitated by the creation of a new online platform based on local specificities as well as information revealed during the research, which is intended to fulfil the objective of the study.

Keywords: domestic tourism, safety, travel arrangement

1. Introduction

According to a research conducted by the World Travel & Tourism Council (WTTC) in 2019, crises caused by the emergence of various pathogens last for an average of 19.4 months. This is the order of time for tourism in a given destination, which is equivalent to a temporary change in the environment coupled with the use of services, the main result of which is the acquisition of experience (Michalkó, Németh & Ritecz, 2020), to re-emerge. However, backing up, providing a wider range of products, or targeting multiple segments simultaneously can help to recover (Keller & Tóth-Kaszás, 2020, p. 61). The research results presented in this paper are intended to serve as a further alternative in terms of which resources, the mobilization of which, due to the significant decrease in the number of tourists from abroad, favours the support of domestic tourism and allow it even in times of epidemic. The secondary data in the first part of the study support the importance of tourism safety and the use of innovative services due to insecurity, as well as the relevance and timeliness of the topic in the light of the global solution alternatives

already in place. The methodological part based on secondary information already focuses on the exploration of domestic conditions in the spirit of conceptual thinking based on primary data collection and predicts the need for an online platform whose functional and innovative value from the perspective of an existing model, Business Model Canvas (Osterwalder & Pigneur, 2010). recommended to approach.

2. Main aspects of tourism safety during a pandemic – foreign outlook

As a result of the changes observed in recent years, the issue of tourism safety has come to the fore. Nowadays, having a destination with a good rating in terms of tourism safety can result in a significant competitive advantage, as the quality of tourism safety increasingly influences travel decisions as well. For a given destination, threats to travel there include the frequency of crimes and natural disasters, a lack of local knowledge and a political-cultural background, as well as threats to health security, especially viral infections (Birkner, Marton & Keller, 2018, p. 73).

2.1. *Tourism marketing*

According to a 2003 United Nations World Tourism Organization (UNWTO) revelation, tourism marketing is a management philosophy that aims to meet the needs of tourism demand in a way that maximizes the benefits to the supply-side tourism enterprise. The company selects the most suitable tools for the given target groups with the help of research and forecasting in order to market the tourism product or service. Its three main areas are product marketing, service marketing and destination marketing. Its challenges include economic and demographic change, the emergence of new technologies, the presence of more demanding and less loyal consumers, the growing demand for sustainable tourism, changes in tourist transport and the faltering belief in safety (Lórinicz & Sulyok, 2017). Another challenge can be seen in the current epidemic situation, as a result of which conflicting feelings – to go or stay - surround those who want to travel. In order to help businesses, the primary task of tourism marketing is to develop short-term solutions that provide temporary stability, while the existence of long-term solutions for the post-pandemic period is also of paramount importance. Wang (2020) – who belongs to the Skift (means „shift” or „transformation” in nordic languages) team – in her research revealed it, that the 76 percent of tourism market experts worldwide has reported information about the virus, short-term reactions from companies to the epidemic have been seen:

- must not „disappear”, presence on promotional surfaces is still required,
- formulating a clear, sympathetic message with customers, open acceptance of the situation,

- confirmation that the business is waiting customer back after the epidemic risk has subsided.

2.2. Hotel industry

The global context of the epidemic is also reflected in the wave of significant cost reductions that affected 90 percent of the U.S. tourism marketing industry in the first half of 2020. Research on hotel experience safety in the U.S. (Krishnan, Mann, Seitzman & Wittkamp, 2020) was based on interviews with 3,500 passengers who came to the U.S. from five different countries. From the experience of passengers, after the first wave of the pandemic, more thorough room cleaning, testing of hotel occupants, placement of disinfectants, regular body temperature monitoring, introduction of 72-hour waiting time after leaving the rooms, and daily staff wearing a mask have become general. The research also attempted to predict the state of the U.S. hotel industry in the medium term. The authors of the research material expect a further 20 percent decrease in hotel revenues by 2023 if the intensity of the epidemic remains unchanged. If, on the other hand, there are signs of a slowdown, by 2022 the U.S. hotel industry could reach the level of sales realized in the pre-pandemic period.

2.3. Hospitality

The study of Gursoy – Chi (2020) also confirms that various restrictions have had a significant impact on the hospitality industry worldwide. Strict regulations have led to temporary closures and a large drop in demand, which has been followed by a series of monthly closures with deficit. All this resulted in an immediate rethinking of the marketing strategies in place until then. The aim was to continue to meet guest needs in a more secure manner. Based on the research data, it can be said that every second respondent does not dare to stay in a hotel and eat in restaurants, and only one in four respondents has visited a restaurant since the outbreak of the epidemic. Overall, respondents would be willing to pay more for the same service for a greater sense of security, and they also consider it important to test staff regularly. Due to the decrease in direct contact, they consider it a good idea and are open to the introduction of various technologies such as QR codes, applications, digital ordering. If the short-term goal of a catering unit is to increase the number of guests, then the research results included in the study can be helpful in terms of „how to proceed”.

3. Innovative service provision and solution alternatives caused by the epidemic

In parallel with the epidemic, services – and closely related tourism products – that seek to fill market opportunities due to a lack of health security have become increasingly important. There is also a growing number of alternative solutions

that seek to alleviate market anomalies due to insecurity, such as risk reduction, confidence-building and crisis management activities. In the following, the market opportunities arising from the lack of health security will be examined first, followed by the detailing of the market anomalies and alternative solutions due to the lack of security.

3.1. Market opportunities due to lack of health security

In order to alleviate the lack of health safety, the hospitality industry is increasingly focusing on space-saving efforts, compliance with regulations and hygiene regulations, as well as gaining contactless service. As public transport can be considered a source of health threats in an epidemic situation, it is appropriate to examine how public transport can be modernized in part or in full. The study of Turner – Uludag (2015) looks at smart services for transport. The authors declare that cooperation is a prerequisite for smart transport. The co-operation includes the co-ordination of timetables, the smooth operation of the public bicycle system, the construction of smart car parks and the provision of contactless payment options, which would be particularly necessary in the case of a single public transport ticketing system. Recognizing the potential of digital marketing, creating a new communication platform can also help reduce health insecurity. For example, the online platform of the Hungarian Tourism Agency (2017), established a few years ago – known as „*Hungary is waiting for you*” – serves a similar purpose, in addition to providing space for sharing travel experiences. The domestic steps towards digitalisation are the precursors of the National Tourism Development Strategy to be implemented by 2030, the main objective of which is the implementation of digital tourism.

3.2. Market anomalies and alternative solutions due to lack of security

Hotels globally focus on general prevention and providing flexible booking and cancellation options. The results of the research materials described so far also suggest that it is becoming common practice reception areas to place hand sanitizers and to affix stickers to indicate appropriate distancing, and in the case of hotel rooms, to clean several times a day and to disinfect frequently affected areas and toilets generally. The restaurant and wellness units are increasingly characterized by the limitation of capacity and the related extension of opening hours. One of the market leader low-cost airlines believes the solution lies in increasing the level of trust, and in order to achieve such increase actions like regular disinfection of the airplanes, online check-in, contact-free boarding and on-board payment, and also masking have been made priorities (Wizz Air, 2020). There are also efforts to reduce personal contacts, ensure distance,

and employ trained flight attendants. In these circumstances, Mr Péter Janech (2020), a leading expert of the UNWTO, considers ensuring cooperation between tourism stakeholders to be a top priority, while coordinating actions to relaunch tourism as soon as possible and strengthening the confidence of travellers, companies and employees is of paramount importance. UNWTO's (2020) initiatives in crisis management include the publication of „Covid-19 Related Travel Restrictions” summaries of current travel restrictions, the „STAY HOME TODAY, #TRAVELTOMORROW” communication campaign and the „UNWTO Tourism Recovery Tracker” platform, which provides all relevant information on tourism globally. This is complemented by efforts to mitigate socio-economic impacts and accelerate recovery, in the framework of which UNWTO gathers measures proposed by the tourism industry and various international organizations. Globally, the increasingly complete digitalisation, the need for which can be traced back to the transformation of travel habits due to the lack of security as a basic condition, can be considered as a solution alternative. Future digital solutions include full contactless travel, the introduction of digital passports and integrated digital identification systems (Known Traveller Digital Identity), the replacement of business trips with digital solutions, orientation applications – Virusradar, Re-open EU – and the implementation of virtual travel through AR / VR solutions (Raffay, 2020).

4. Methodology

The quantitative research lasted approximately one month, from the end of October 2020 to the end of November 2020. The second half of the research period coincided with the first 14 days of the curfew and emergency announced in Hungary from 20:00 to 05:00, which presumably had a positive effect on the willingness of the respondents. The research was carried out by a 6-person research group and 1 main research leader in both Hungarian and English. The main question of the research was, on the one hand, the customer habits of individually organized trips and, on the other hand, the way getting information related to the organization of a given trip is realized. All of this is of paramount importance in mitigating the effects of current and future pandemics, especially domestically.

4.1. Field research strategy

One of the foundations of the field research strategy is the importance of personal participation, which is why the members of the research team carried out the online dissemination of the questionnaire to potential respondents using the Qualtrics questionnaire system. The logical background of the sample collection was also

in the same proportion (15–15%) a village or county seat serves as the place of residence of the respondents. In connection with the clarification of the current occupation, a significant proportion of the respondents indicated the status of university students (44%) as well as employees (37%). However, a low proportion of respondents were high school students (8%), pensioners (6%) and respondents who classified themselves as other (5%) in terms of status.

4.3. Validation steps

Of the 946 fillers, 871 respondent fillings are considered valid. From the first question after querying the demographic data, the series of questions can be considered as a funnel-based questionnaire. „Have you ever organized a trip? Have you ever been a co-organizer?” the importance of the filtering issue is of paramount importance here. Thanks to this filtering question, the range of those whose answers contribute to increasing the relevance of the research is further narrowed. The number of „yes” answers given to the question was 560, however, only 473 people answered the more specific questions of the questionnaire. The info graphics are also based solely on these fills, thus allowing the data to be displayed without distortion.

5. Results

The quantitative research results realized by the questionnaire method helped to answer the research questions on the basis of relevant, unbiased data. In addition to exploring customer habits related to individually organized travel, as well as information-promoting platforms related to the organization of travel, it has also become clear where the greatest consensus can be identified when classifying factors related to customer habits. All of these are illustrated in detail in the following data.

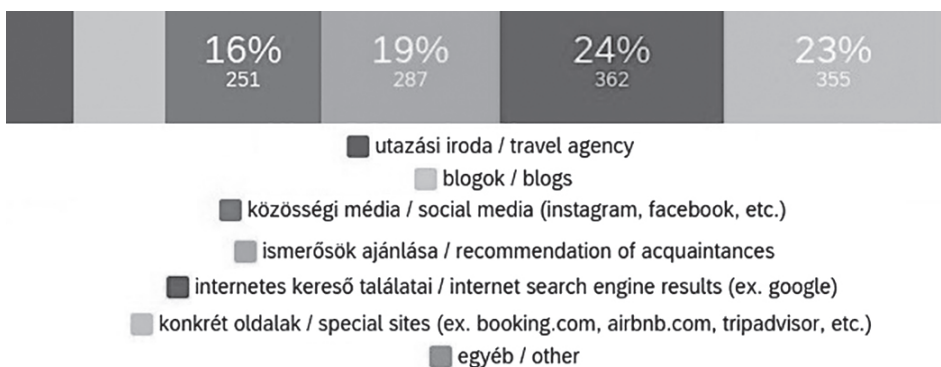
Spreadsheet 1: Preferential system of individually organized trips due to consumer habits (1 = most important / 8 = least important)

Field	1	2	3	4	5	6	7	8	Total
vélemények / opinions	2% 11	10% 46	10% 49	14% 66	18% 83	20% 93	13% 60	14% 65	473
utazási mód / mode of travel	1% 6	7% 32	12% 56	15% 71	12% 55	11% 50	27% 130	15% 73	473
szolgáltatások kínálata / supply of services	1% 5	2% 10	6% 29	11% 53	19% 89	23% 110	24% 114	13% 63	473
szállás típusa / type of accommodation	2% 11	12% 55	22% 105	23% 109	17% 82	13% 62	7% 34	3% 15	473
ár / price	20% 94	26% 123	22% 102	13% 61	10% 48	6% 27	2% 11	1% 7	473
látványosságok / attractions	7% 34	21% 100	11% 53	13% 63	17% 79	18% 87	8% 39	4% 18	473
informatív anyagok (képek, videók, beszámolók)/ issue of informative materials (pictures, videos, reports)	2% 8	4% 19	7% 33	7% 31	6% 29	8% 39	17% 82	49% 232	473
a helyszín / location	64% 304	19% 88	10% 46	4% 19	2% 8	1% 5	1% 3	0% 0	473

Source: own editing

Based on the data included in the blue circle, it can be stated that an exceptionally high proportion of „location” is dominant, and approximately three-quarters of respondents (65%; 304 people) ranked this factor 1st. For one in five respondents (20%; 94 people), however, „price” is the primary and most determining factor. The third most frequently ranked factor (7%; 34 people) was the topic of „attractions”. The other aspects negligibly – one or two percent – usurped the 1st place in the order of preference set up by the respondents. Data marked with red circles indicate the highest degree of agreement on the factors in terms of a given factor occupies which place with the highest frequency in the order of preference. The data in the red circle in the first column (64%; 304 people) suggest that there is also the highest degree of agreement on the most frequently preferred aspect („location”) in 1st place. This is followed by the „issue of informative materials” (49%; 232 people), where almost half of the respondents agree that this aspect is the least determining factor for them. More than a quarter (27%; 130 people) of the respondents agree that the quality of the „mode of travel” is in the penultimate place. Also, a quarter of respondents (26%; 123 people) agree that „price” ranks second in their individual criteria. The „type of accommodation” is considered to be a moderately determining factor. This aspect was marked by the respondents in the 3rd (22%; 105 people) and 4th (23%; 109 people) place. Similarly, the „supply of services” ranked 5th (19%; 89 people) and 6th (23%; 110 people), which was most often ranked 5th and 6th when setting individual preference orders. It is clear that there is no significant consensus by respondents on the classification regarding the importance of the nature of „opinions” and „attractions”. This finding is also supported by the absence of red rings for these aspects.

Figure 2: Percentage distribution of information on different forums / platforms



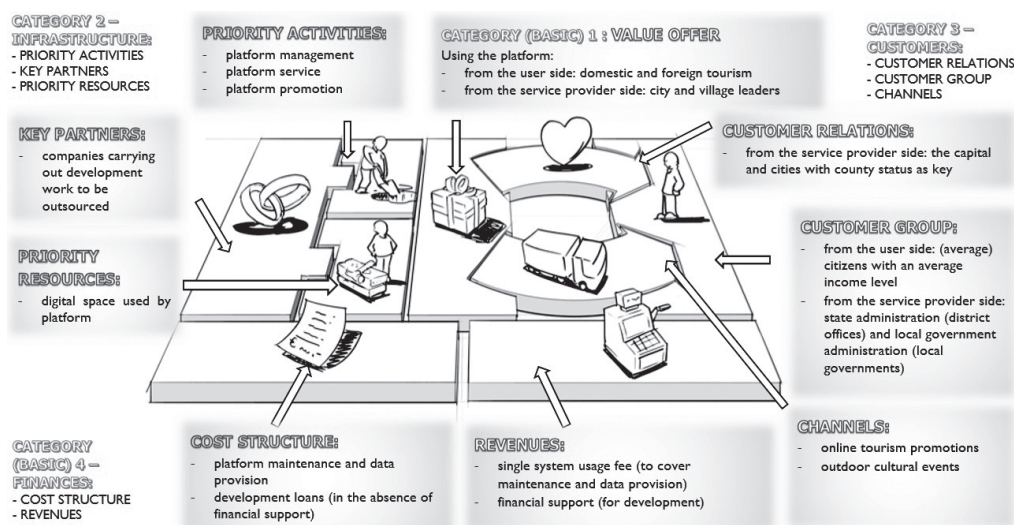
Source: own editing

Figure 2 is intended to illustrate the percentage distribution of information across different platforms. It is important to mention that in the case of the question underlying the distribution chart, respondents were able to mark more than one an-

swer. The results clearly show that organizing travels upon „internet search engine results” (24%; 361 people) and „special sites” (23%; 355 people), digital platforms are significant. To a lesser extent, „recommendation of acquaintances” (19%, 287 people) and „social media” (16%; 250 people) provide the starting point.

As a result of recent events, rural and domestic tourism began to flourish temporarily, in parallel with which, changes in leisure habits became perceptible. The most pressing issue for tourism in the current situation is how to offset the tourism challenges caused by the epidemic situation in Hungary. The development and implementation of a nationwide, but at the same time city / village level digital platform – the main goal of which is to stabilize domestic tourism – is being considered along the lines of tourism safety aspects. The criteria of the platform to be developed include a uniform and clear presentation on the user side and easy updating on the service provider side. In the absence of time, the goal is to find an already working and efficient solution, which is why it is recommended that the development of the platform be based on the Business Model Canvas (Osterwalder & Pigneur, 2010). The model has been proven over the past ten years and is still in use today in both the non-profit and for-profit sectors worldwide. The Business Model Canvas (BMC) illustrates the nature of viability of the platform to minimize the loss of tourism revenue caused by the epidemic based on nine areas. The one-page concept map is compiled by grouping the nine areas into four more categories (Figure 3).

Figure 3: NINE areas – FOUR categories – implementation plan in ONE page



Sources: <http://observatoritersector.org/transparencia/wp-content/uploads/2015/05/BlocsCanvas.png> based on own editing

Thanks to the simplicity of the info graphics, the structure of the model becomes transparent in a short time. It should be noted here that a clear publication of the practical implementation is possible only in the presence of a complex starting point, covering all nine areas. If the intention is given and the implementation receives support at the state level or from the non-profit sector, it is essential to carry out a background study of the areas, which includes a full mapping of the digital traces of consumer behavior that form the basis of effective marketing, and they are used to identify consumer needs and buying trends along content and Big Data analyzes. The multiplayer platform conceptually connects two customer groups, the online outlets of cities and municipalities, with the audience. The platform creates value by helping to establish relationships between customer groups in the digital space, so that destination designation is also consciously implemented in terms of tourism safety.

Category 1 – Area 1: Value offer: the platform creates value by helping to establish relationships between customer groups in the digital space, so that destination designation is also consciously implemented in terms of tourism safety.

Category 2 – Infrastructure

Area 2 – Priority Activities: activities integral to its implementation, such as: promotion, management, service provision.

Area 3 – Key Partners: companies carrying out development work to be outsourced

Area 4 – Priority Resources: the digital space itself, through which the use of the service can be ensured.

Category 3 – Customers

Area 5 – Customer relations: continuation of priority PR activities in relation to the cities with county status and the capital.

Area 6 – Customer group: From the user side: (average) citizens with an average income level. On the service provider side: state administration (district offices) and local government administration (local governments).

Area 7 – Channels: focus on online tourism promotions and outdoor cultural events.

Category 4 – Finances

Area 8 – Cost Structure: Its main components focus on platform maintenance and data provision. It is also necessary to list possible development loans here.

Area 9 – Revenue: a single system usage fee, which includes maintenance and data provision fees and financial support for development.

6. Conclusions

Given the quantitative results, it can be stated that one of the basic driving forces of travel habits related to travel arrangements is the nature of the destination that is the final destination of the given trip, and on the other hand that collecting pre-trip information is especially conducted in the digital space.

The direct addressing can be mentioned as a research constraint, which is partly justified by the bilingual nature of the questionnaire and the large number of foreign respondents, but all this may have a negative impact on the willingness of Hungarian respondents over the age of 25 to complete the survey. All this assumption is also supported by the demographic data that approximately half of the valid fillings (443 fillings) come from respondents aged 18–25.

The educational level of the respondents is not part of the current research, however, the approach from the point of view of educational level could have given us an even more nuanced picture in terms of the final results. In future research on the topic, the inclusion of this demographic approach in research, as well as additional perspectives on travel as a topic, such as travel intentions, interpretation of booking habits, trust and security, or even basic customer expectations, can contribute to get to know more deeply the group of travellers who mostly organize their journeys by themselves, individually. Quantitative research on the background study required for implementation can also be considered a future research opportunity, where the field research strategy and its timing, as well as the data collection toolkit and the questionnaire are elements of effective marketing strategy, consumer needs and purchasing trends, ie predictive marketing. from their point of view.

Quantitative data draw attention to consumer preferences in domestic tourism, bearing in mind the increasingly common epidemiological measures. In addition to creating a viable epidemic management strategy, knowledge of the specifics of the local tourism environment is key to ensuring that, in addition to keeping Hungary on its feet, innovative solutions from Hungary become a globally adaptable success story. BMC can prove to be a good solution in the implementation of such innovative solutions as well as in the preparation of the implementation plan in one page. It is in the direct or indirect interest of all Hungarians to stabilize the state of domestic tourism as soon as possible.

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Playing mind games to improve the sport event experience Exploring the applicability of neuromarketing in services marketing

Ákos VARGA, Norbert GRISZBACHER, Ildikó KEMÉNY

Abstract

Seeking for adventures that offer joy, escapism and other positive feelings strongly determines today's consumer decisions. Although, from the consumers' side the demand is given, due to the spread of coronavirus disease marketers are facing unprecedented times to establish fruitful relationships with suffering from the consequences of losing the old methods of customer engagement. Seeking for new methods in the field of services (event) marketing to bring closer the producers and the consumers stands in the center of our research. The study reports an explorative research to test the applicability of neuromarketing as a novel tool in marketing research, with a focus on designing customer and experience centric services. We compared the different roles of an event's frontline employees (professional and volunteer ones) in the customer journey using implicit (implicit association test - IAT) and explicit measures (survey). The analysis revealed a significant correlation between implicit and explicit attitudes toward a sport event's frontline professional staff and volunteers (our target categories) alongside creating a unique visitor experience, confirming the validity of the applied method.

Keywords: *neuromarketing, mega-events, volunteers, service experience, implicit association test (IAT)*

1. Introduction

Using Pine & Gilmore's expression we are living in the „*experience economy*” (1998), a time when people tend to choose those products and services that offer unique, memorable experiences. During the last decades the focus of marketing approaches changed substantially, emphasizing intangible elements such as feelings, desires and fantasies. Researchers discovered that consumers must be considered as rational and emotional human beings who wish to fulfill their dreams

on a memorable, unique journey along each interaction point with the brand (Calder et al., 2017; Holbrook & Hirschman, 1982; Schmitt et al., 2015; Tynan & McKechnie, 2009; Verhoef et al., 2009). Meanwhile the functional parameters can be easily imitated, a unique experience may lead to a competitive advantage. An unforgettable, pleasant memory can create a long-lasting, distinctive atmosphere around a brand resulting in a special emotional bond between the company and the customer. Consequently, a holistic service design is essential that offers a positive adventure throughout each touch points of the customer journey where the parties are all responsible for (co-)creating a complex experience (Bitner et al., 2008; Kenesei & Sepródi, 2017; Lim & Kim, 2018; Patrício et al., 2008; Teixeira et al., 2012; Zomerdijk & Voss, 2010).

The importance of customer and experience centric approaches gained increasing attention recently due to the Covid-19 pandemic. The Covid-19 shockwave hit the sport and tourism sector particularly, as Evans et al. (2020) point out that the restrictions affected the grassroots of the industry. Sport plays an integral part in our lives with its universal language, show elements, unforgettable, dramatic moments, physical and mental health benefits as joy, escapism and belonging (Aiken et al., 2018; Smith & Stewart, 2007). Although, among the consumers the demand for (re)living through joyful moments are given (Grix et al., 2020), due to the pandemic marketers are facing unprecedented times as establishing long-term fruitful (business) relationships turns challenging with many brands are suffering from the consequences of losing the old methods of customer engagement (Pedersen et al., 2020). The latest PwC report (2020) about rebooting the sport industry system highlights that during the last years the sport consumption is characterized by the innovation of digital technologies, but that does not mean a lower demand for the „real-life” sport content. As a result, the quality of the arena’s on-site services is predicted to remain a key point in the future.

These times the future of sport and tourism is surrounded by a number of questions, the aim of the present study to test the joint applicability of explicit and implicit research methods by examining the potential of sport event volunteers in creating an adequate tourism offering that could lead to a long-lasting positive impression, thus a competitive advantage.

2. Sport Events, Volunteers and the Once in a Lifetime Experience

The secret of the biggest international (sport) events like the Olympics, World Cup or European Championship lies within their unique atmosphere. As Getz (2005) reported, „occasional mega-events” promise a „must see” and „once in a lifetime” experience that guarantees high tourist demand, hence high value. Large scale

sport events proved to be essential building blocks of our civilization as they are vital instruments in the engine of today's economy (András, 2003; Markovits & Rensmann, 2010). Several industries are dependent on their success, their legacy affects environmental, recreational, economic, branding, urban, social, and political grounds (Crompton, 2004; Gratton & Preuss, 2008; Hall, 1992; Roche, 2000). More and more popular the theory that the so-called soft power of sport events (e.g. place branding, social cohesion, diplomacy) is the main motive behind the increased interest in organizing mega-events (Andranovich et al., 2001; Gratton & Henry, 2001; Jaffe & Nebenzahl, 1993; Magdalinski & Nauright, 2004). The impulses obtained alongside the customer journey form the basis of an experience that is capable of enhancing the given event and region with a distinctive, unique image in the long run (Getz, 2005).

Constructing a positive image largely depends on the satisfaction of the customers which can be a challenging task as the success of an event requires the cooperation of several parties such as the organizer team, sport organizations, sponsors, media, government, volunteers, local and foreigner residents (Kim et al., 2019; Sun & Paswan, 2017; Zhang & Zhao, 2009). In case of considering events as complex services each interaction (staff/customer/setting) has an important role in (co-) creating real-time the personal experience (Getz et al., 2001; Getz, 2005; Vassiliadis & Fotiadis, 2016).

As a result of the growing popularity and size of sport events in recent decades, the free workforce of volunteers has become increasingly important (Cuskelly et al., 2006). Even though the topic of sport event marketing has been studied extensively, there are limited studies examining the role of volunteers in the customer journey (Lee et al., 2018), despite of the fact that in general the performance of frontline-employees has a strong impact on the perceived service quality, forming the overall experience and the final image (Bitner et al., 2008; Lim & Kim, 2018; Patrício et al., 2008; Teixeira et al., 2012). Consequently, volunteers become one of the most important stakeholders and co-creators of an event as their passionate work is essential in creating a positive event legacy (Kim et al., 2019; Lee et al., 2018). As Doherty (2009, p. 191) defines „*Volunteering is inherently an exchange relationship, where individuals offer their time, skills, and energy to assist with an event, and experience various benefits, as well as costs, in return*”. Understanding the components of these benefits (motives), and thus obtaining the support of the volunteer side is inevitable in successfully creating a positive atmosphere (Lee et al., 2014; Szenyéri et al., 2019).

Volunteers not only turn out to be invaluable in relieving the managerial burdens of the ever-growing complexity and cost of events by providing a free work force, but also in improving the sport service quality. In contrast to the

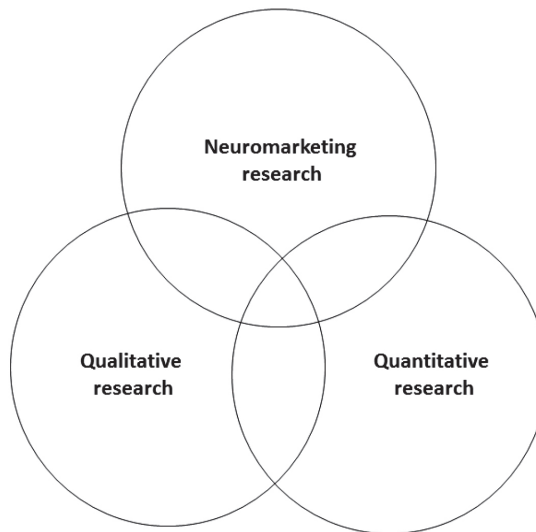
professional/paid staff, volunteers' devotion can influence positively the visitors' experiences (Holmes & Smith, 2009; Jago & Deery, 2002). Supporting this argument Kemp (2002, p. 110) refers to them as „*the unsung heroes, who braved the elements and were always cheerful and helpful to all who encountered them*” whilst Lockstone and Baum (2009) claims that they are indispensable in creating the event atmosphere as „*their good humour and enthusiasm is infectious*” (p. 50).

3. Neuromarketing – The Implicit Association Test

In a consumer behaviour research the focus is on understanding better the underlying mechanisms of consumer decisions (Maison et al., 2001). Consequently, the fields of marketing and psychology (e.g. implicit social cognition) blended by using psychology based measures to discover the motives of consumers. One of the most popular implicit research tools is the implicit association test (IAT) introduced by Greenwald et al. (1998) with the ability of measuring consumer attitudes and beliefs (Greenwald et al., 2003).

IAT is a method for assessing strengths of automatic associations, applied to measure consumer attitudes (Greenwald et al., 1998). Implicit measures seem to be a good alternative technique for obviating problems in assessing attitudes as the participants are unaware that they are actually reporting an attitude, which is expected to reduce social desirability bias. Although implicit measures may still be in their infancy, these are contemplated as methods free of response bias. According to the literature, neuro-based measurements play a complementary role in addition to traditional market research methods, by increasing the depth of knowledge gained during the parallel data collection – see Figure 1. (Lee et al., 2007; Plassmann et al., 2015; Ramsøy, 2015).

Figure 1.: Taxonomy of neuromarketing



Source: adapted from Varga (2016, p. 57)

The consistency, predictive power, simple construction and universal applicability of the implicit association test predicts a bright future for the test in business research (Brunel et al., 2004; Gregg et al., 2013). However, it must be noted that in order for all this to be feasible and for the validity of the results obtained in neuromarketing research not to be questioned, a number of disciplines need to be coordinated, including the latest advances in neuroscience, psychology, and economics (Varga, 2016).

Our paper is aimed to test the application of the implicit association test (IAT) within services (event) marketing. The research compares the impact of volunteers and professional/paid staff on the event experience by using explicit and implicit methods in order to find a way to bring closer the consumers to the sport organization by getting a better understanding of the event visitor (fan) motives.

4. Methodology

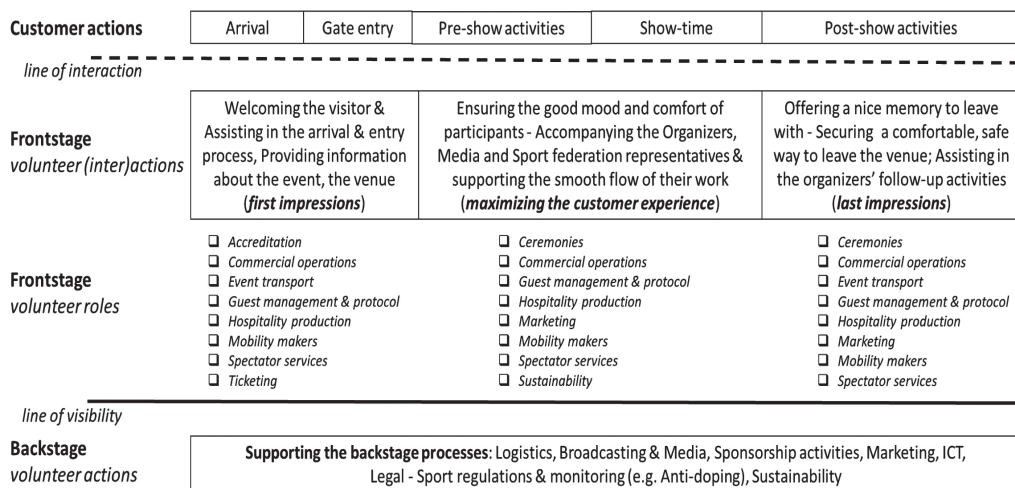
4.1. *Implicit measurements*

To avoid the distorting elements (social desirability bias) arising from the complexity of the event experience in our exploratory research we applied a survey-based implicit association test. In this research we were interested whether the respondents pair positive images to volunteers or professional/paid staff. We have

extended our volunteer/pleasant IAT with an explicit survey to be able to compare the implicit and explicit responses. As an initial test of the survey-software IAT, we expected to see an implicit preference of volunteers over professional/paid staff („target A and B”) and correlations with explicit measures as well (Hofmann et al., 2005). The respondents have completed a survey-based IAT in Qualtrics comparing our target pair stimuli set on the dimensions of pleasant and unpleasant. To determine our error rate, we have set the IAT to drop participants quicker than 300ms (Carpenter et al., 2019).

The stimulus material of the IAT survey included a total of 8 different image pairs (volunteer vs. paid staff) in similar settings to minimize other influencing factors, representing each steps of the sport customer journey (Arrival (1), Entry (1), Pre-show (2), Show (3), Post-show (1)) - see Figure 2.

Figure 2.: A simplified blueprint of sport volunteer service (EURO 2020(1))



Source: own construction based on Vassiliadis & Fotiadis (2016, pp. 204-5) and Fodor (2019)

The respondents had to make the assessments based on the following attributes (Maison et al., 2001):

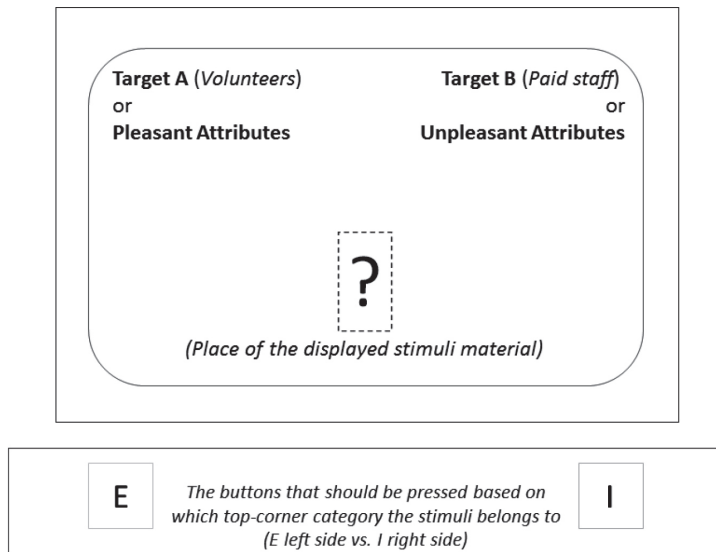
Positive experience: attractive, friendly, peaceful, sweet, buzzing, pleasant

Negative experience: nasty, unfriendly, disturbing, bitter, monotone, unpleasant

The difference in the response rate between the evaluative dimension and the pairing with polar attitude objects indicates the extent of the implicit attitude power. So, if the image of volunteers and the pleasant category are strongly connected, the respondent should respond faster if you must give the same answer on these

two terms which position (as Figure 3. illustrates – left or right side by pressing the E or I button) was randomly assigned (then reversed) at each case by Qualtrics (Carpenter et al., 2019).

Figure 3.: Visualization of the computer screen during the IAT procedure



Source: own construction based on Maison and Maliszewski (2016, p. 6)

4.2. Explicit measures

Subjects completed a set of questionnaire measures of behavior and attitude toward our target categories. The questionnaire contained the following points:
 Self-reported behavior: event visiting habits in general;
 Affect: evaluation of the importance of the target categories;
 Demographic variable questions (5-point Likert-scale).

In our explicit measures, an overall and the specific attitudes towards the targets were measured with an 18-item scale, the questions were centered around event tourism, experience, and role identification in the dimensions of volunteers and paid workforce.

The data collection was performed in the autumn academic term of 2020 following a snowball sampling method to effectively reach the target segment (Malhotra & Simon, 2009). The survey was shared in Hungarian sport fan groups on different social media platforms with the aim of collecting the answers of potential sport event visitors.

5. Results

The test ended with a total of 128 complete responses and 122 fulfilled the IAT criteria, the dropped trial rates were low, only 6 participants were excluded in the process, according to the D-score method by Greenwald et al. (2003), providing sufficient dataset for further analysis.

Table 1. Sample descriptive

Number of complete responses	128
Valid IAT responses	122
Sex	70% Female
Age (Mean)	25,54
Age (SD)	8,051
Qualification	54% Diploma
Living place	43% Budapest
Family status	50% In relationship
Not ignoring completely the sport world	87%
Sport events visited in the last 3 years	67% At least one
Previous (sport)volunteer experience	17%

Source: own construction (primary research)

The result of the implicit test, the so-called D-score is the individual time response numbers, an aggregation of their response speed for the IAT questions (Carpenter et al., 2019; Greenwald et al, 2003). The obtained 0,406 D-score (SD=0,503) means that the scores trending towards volunteers to pleasant dimensions as D-scores of the IAT are taking positive values indicating a pleasant (meanwhile negative - unpleasant) preference, which means it was easier (faster) for the respondents to associate volunteer images with the pleasant dimension.

With the aim of getting a deeper understanding of the topic the implicit (IAT) and explicit results were advised to be handled combined. Comparing the implicit results (D-scores) with the explicit ones of our exploratory study we found the strongest correlations for the following statements: „Among other things, the volunteers as a „special staff” are responsible for utilization of the customer (visitor) experience” (Pearson’s $R=0,373$, $p=0,000$), „My own impressions can be influenced by interactions with other event participants” (Pearson’s $R=0,243$, $p=0,007$), „In the long run, a service (event) cannot be successful without focusing on the customer experience” (Pearson’s $R=0,218$, $p=0,016$) and „During an event visitors meet (willingly or unwillingly)

with volunteers at every stage of the customer journey” (Pearson’s $R=0,214$, $p=0,018$). The correlation of the explicit and implicit results indicates a positive relationship between volunteer activity and the unique event experience.

6. Discussion

As the literature review pointed out the importance of distinctive and unique experiences is gaining ground in the field of marketing (Calder et al., 2017; Patrício et al., 2008; Teixeira et al., 2012; Verhoef et al., 2009; Zomerdijk & Voss, 2010). In the process of exploiting the opportunity provided by a large-scale event, marketers must consider various factors that are out of their control, such as the presenter’s performance, weather, competitors. Based on our results, it is suggested that they should focus on things they have influence on, like creating a unique atmosphere (experience).

This study proposes the idea that a well-coordinated volunteer program could support unfolding the currently lost, in-person (sport) event experience and enable marketers to tighten fan engagement in the post-virus era. The explicit and implicit measures sheds light on the marketing potential of volunteers within the event industry (i.e. sport). The results align with the findings of Lee et al. (2018), connecting the topic of volunteers, (sport) service experience and image formation. The novelty of our research is that we discovered implicitly a subliminal preference towards volunteers (vs. professional staff) as their versatile roles were associated with more positive experience and atmosphere dimensions which reinforces the findings of Holmes and Smith (2009) and Jago and Deery (2002) that volunteers have a distinctive, positive impact on visitor experience. The results indicate that the impressions gained through the interactions with frontline employees like volunteers has a strong impact on the mood of the visitors. This confirms the findings of Lockstone and Baum (2009) as the „infectious” positive atmosphere co-created by the interactions with volunteers turns to be a key component of the event experience which ultimately could lead to a higher level of perceived quality and customer satisfaction. According to Getz (2005) and Lee et al. (2018) the pleasant memories affect the overall image of the service (event) and customer loyalty that determines the ability of the organization (event/place/cause(sport)) to retain current customers and attract new ones.

The present study stands as an evidence that marketing research should follow the overall trends in behavioral sciences, to be able to acquire up-to-date insights about consumer behavior. In understanding with Greenwald et al. (2009), the findings confirm the validity of the joint application of implicit and explicit measures. This study made some important findings, however follow-up studies certainly required to get a deeper understanding of the effectiveness of neuromarketing applications in consumer behavior research.

7. Acknowledgement

*Take a highly motivated former Ph.D. student, a curious newcomer, and an excellent master student. At first, there are not so many things in common. But if you take a closer look, you can find the common ground. That is, the guidance from someone with great experience. An experience, which stems from a lifetime dedication to the selected field. From the generations of students and colleagues that flourished under her hands. From the marvellous interactions with the greatest names ever in marketing. The most valuable part of her oeuvre is probably not a publication, but the invaluable effect on people.
Kudos to professor Judit Simon!*

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„Pretty lingerie makes it all better!” – The role of brand in the context of the lingerie market

Dorina ANTAL, Károly ÖTVÖS

Abstract

Fashion marketing is a „hot topic” nowadays; however, lingerie segment is rather neglected. In this paper, we try to address this matter and we examine the impact of brand on consumers in the context of the lingerie market. The focus of our research is to study the role of different product attributes and brands on customers, and to map the consumer decision-making process and shopping habits in the lingerie market. The study presents the results of both qualitative and quantitative researches and 6 distinct consumer segments are identified in the intimate apparel market. Implications for lingerie companies to increase the effectiveness of their marketing activities are also discussed.

***Keywords:** Consumer behaviour, Customer-Based Brand Equity, Intimate apparel, Product attributes, Service attributes*

1. Introduction

Nowadays, women are spoiled for choice, there is a wide variety of lingerie on the market, making it very difficult for women to make a decision. The bra segment has the largest share of the lingerie market, its value was worth \$7.2 billion in 2018 (The NPD Group, 2019) and by 2024 its market share could increase up to 36% (Global Lingerie Market..., 2019).

The continuous growth of the intimate apparel segment is generated by women buying far more bras and undergarment than what they would need based on the lifespan of the products. According to the wearing- and washing cycle, women should have 3-4 bras and 6-8 underwear, but they prefer if their underwear blend with their clothes and their bra matches the brief worn. An average woman can own approximately 8-10 pieces bras and 10-20 pieces briefs (Newbery, 2018). Based on these data, the intimate apparel market and the bra segment itself is

significant, thus it is worth conducting further researches in this area to get a complex picture of the consumer behaviour, their expectations and attitudes towards our brands.

This study examines the impact of brand on consumers and their purchasing decisions in the lingerie market. Even though fashion industry is analysed in a broad spectrum, academic research has neglected consumer behaviour for intimate apparel (Tsarenko – Lo, 2017). Our research focuses mainly on the bra segment because it is a high-involvement product category, choosing the perfect bra is a complex process (Hart – Dewsnap, 2001). Despite their invisible nature, underwear and bras specifically play a significant role in the everyday life of most women – the perfect bra can provide comfort and pleasure, or a tight bra can even ruin their day.

In the first part of the study, we introduce the concepts related – such as Customer-Based Brand Equity in the fashion industry, the relationship between brand image and self-image and consumer decision-making process in the context of the apparel market – and then present the research results.

2. Literature review

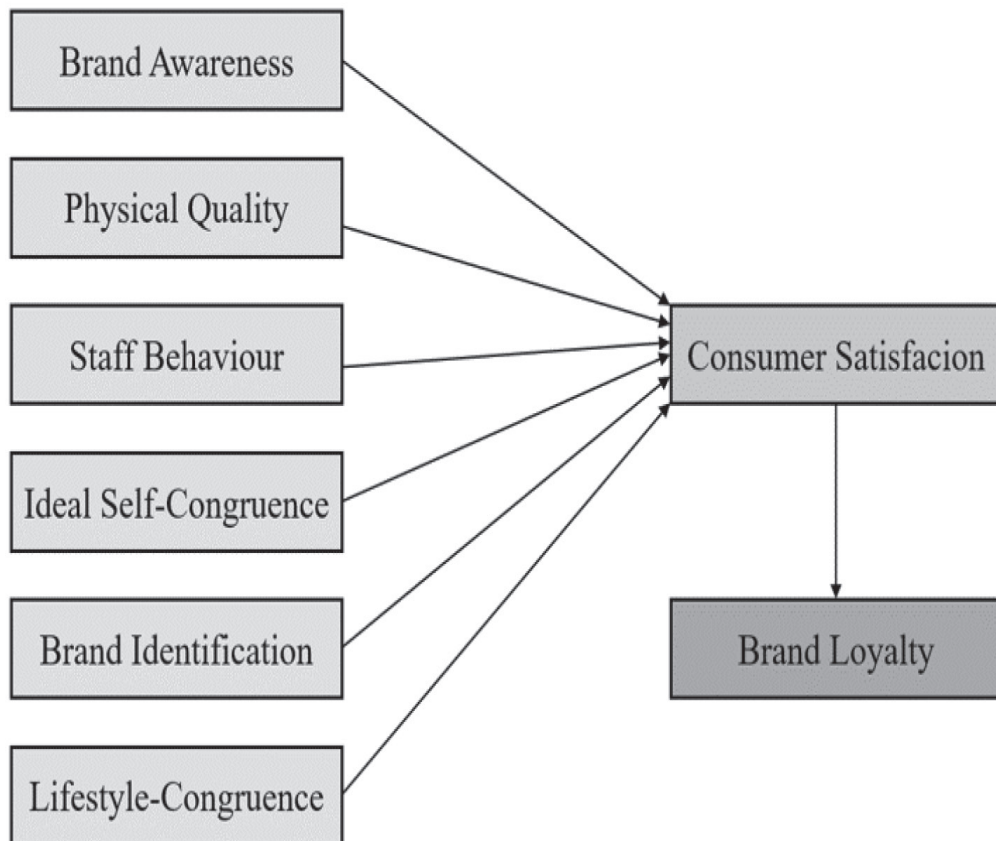
2.1. Overview of the theoretical concepts of branding in the fashion industry

Brands with strong and coherent brand equity provide added value both to the consumer and the company. In this study, we will only address the former, the consumer-based brand equity approach, because later we will examine what do different brands mean to consumers, what advantages (or disadvantages) their usage bring to them.

Brand equity is ‘a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm’s customers’ (Aaker, 1991, p. 15). Based on the widely known Aaker model, brand equity consists of the following components: brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary brand assets. These components facilitate the interpretation and process of information about a particular brand or item, moreover, they also play a crucial role in reducing perceived risk (Randall, 2000). However, it is difficult to apply the model in case of service-oriented brands. For example, it only focuses on the perceived quality of the product itself, while the perceived service quality does not play any role in the model (Nam – Ekinici – Whyatt, 2011). In the fashion

industry, competence and helpfulness of the staff and the visual appearance of the store design, are also of great importance (Çifci – Ekinci - Whyatt, 2014). The Çifci – Ekinci – Whyatt CBBE model (Figure 1) focuses on the service industry – our research area, the fashion industry, to be specific. The authors adjusted and developed a model which examined the hotel and restaurant industry by adding brand awareness.

Figure 1: The Consumer-Based Brand Equity model of the fashion industry



Source: Çifci, S. – Ekinci, Y. – Whyatt, G. (2014): A cross validation of consumer-based brand equity (CBBE) scales in fashion retail industry. 2014 Global Marketing Conference Singapore, p. 1463

The extended model consists of 8 dimensions, of which brand loyalty, brand awareness and perceived quality are also important components of the Aaker-model. However, the authors determine perceived quality in relation to the service provided.

Building brand awareness is the first step in establishing a strong brand equity, as it is crucial that a particular brand should be present in the mind of the consumers. Perceived physical quality includes factors related to the physical appearance of a store, such as its atmosphere and selection. The other component is the competence and attitude of the staff (Ekinçi – Dawes – Massey, 2008).

Symbolic elements, which are tied to consumers' self-image, also has a significant role in the model. Ideal self-congruence shows the extent to which the image of a specific brand fits into the consumer's desired self-image (Ekinçi et al., 2008). In addition, the consumption of a brand can play a significant role in the expression of belonging to a specific reference group – brands can make it easier for the consumer to identify with their aspirational reference groups or to isolate themselves from a certain group of consumers. Lifestyle-congruence shows the extent to which the consumption of a given brand fits into the consumer's lifestyle and interests.

Consumer satisfaction is based on the last shopping experience and acts as an intermediary between the other six dimensions. Brand loyalty is the central element and it expresses a willingness to repurchase or recommend the brand bought (Nam et al., 2011). As seen here, a brand not only includes its expressed idea about itself (brand identity), but also the associations related to this brand, namely the brand image, that appears in the mind of the consumer.

Brands can both provide functional and symbolic benefits to consumers (Bhat – Reddy, 1998). In case of a bra, in addition to providing comfort and strong support throughout the day, women can also feel attractive while wearing it. Many consumers try to express their personality through their clothes (Guy – Banim, 2000); thus, brand image should not only resemble brand identity, but also support consumer self-image. Typically, consumers buy in stores or purchase brands that support their self-image (Rath – Bay – Gill – Petrizzi, 2015). The more consistent the self-image and brand image, the higher is the consumer's purchase intention and susceptibility towards brand loyalty (Sirgy, 1982).

Fashion companies usually try to affect the ideal self-image of consumers in their marketing communication, which can widen the gap between their current and desired self-image, by decreasing their self-esteem (Rath et al., 2015).

2.2. The characteristics of the consumer purchase decision-making process in the fashion industry

Based on the above demonstrated theoretical branding framework, it is clear that companies need to provide a joyful and professional experience for our customers in the fashion industry. On the one hand, (window-)shopping can be a leisure activity or a scene of socializing (Cox – Cox – Anderson, 2005). Consumers who experience shopping as a hedonic, enjoyable activity, tend to engage more commonly in impulse shopping, and spend more money during a single purchase (Kim – Kim, 2008). In addition, it is also important to be able to influence the senses of consumers. By touching a garment, they can examine the quality of the material and decide if it meets their preliminary expectations (González-Benito – Martos-Partal – San Martín, 2015).

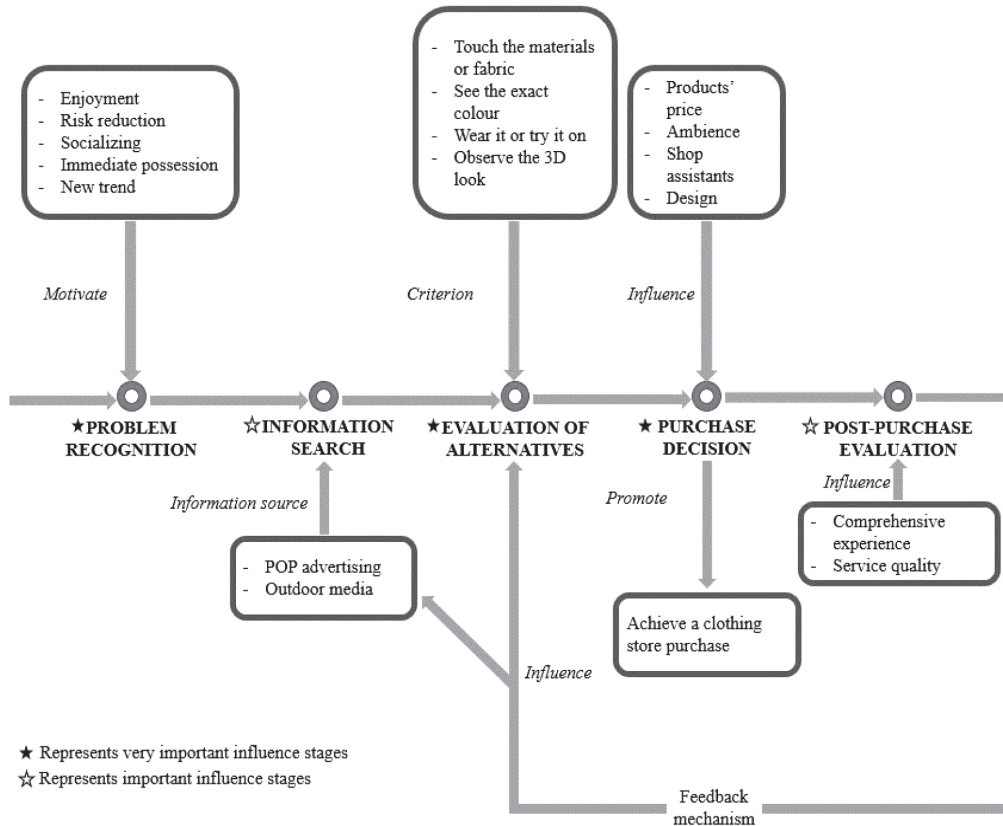
It is worth mapping the consumer purchase decision-making process of traditional clothing retail. The thesis is based on the Engel-Kollat-Blackwell model, which presents the purchase decision-making process and its factors. The EKB concept consists of five sequential steps: problem recognition, search, alternative evaluation, choice, and outcomes. However, the creators of the clothing retail model have added components that apparel companies should pay attention to at different stages of the consumer decision-making process (Xu – Chen, 2017).

Based on these sequential steps of the consumer purchase decision-making process, the authors identified the following unique characteristics (Figure 2):

1/ Problem recognition: Buying clothes can be a hedonic activity as it relaxes consumers, and it is also excellent for a program together with one's friends. As clothing is a high-involvement product category, risk reduction also plays an important role (Xu – Chen, 2017). Lingerie is also a high-involvement category item as it can have personal meaning to consumers. It also has a high level of risk, both the probability of making a bad choice and the perceived significance of the negative consequences associated with these choices are high (Laurent - Kapferer, 1985). We try on a particular bra in the fitting room for only a few minutes, but it may be uncomfortable for us to wear it for a longer period of time.

2/ Information search: At this stage, the authors examined the relevance of outdoor advertising and in-store POP materials as a possible source of information (Xu – Chen, 2017). In addition, the importance of „browsing” the internet is also relevant, consumers can gather information about products before buying them, simplifying the purchase process (Wei, 2016).

Figure 2: Consumer purchase decision-making process in traditional clothing retail



Source: Xu, B. - Chen, J. (2017): Consumer purchase decision-making process based on the traditional clothing shopping form. *Journal of Fashion Technology & Textile Engineering*, 5(3), p. 9

3/ *Evaluation of alternatives*: The consumers' senses play an important role in the evaluation of different alternatives in the apparel industry (Retief – de Klerk, 2003). They can check the colour of the products, they can touch the material, and they can also try on the clothes they like.

4/ *Purchase decision*: It is not only influenced by the consumer's attitude and goals, but also by environmental factors. As stated above, when choosing a retail store, the competence and helpfulness of the staff is an important factor for consumers (Ekinici et al., 2008). The quality of service provided by the personnel can increase consumer satisfaction and boost their loyalty (Srivastava - Rai, 2013). As for the bra product group, the presence of an experienced and helpful team is even more

important because it is a much more complex product group, compared to buying a T-shirt. Consumers can choose from a wide range of styles and sizes; however, women often don't even know their exact bra size (Tsarenko – Lo, 2017). Therefore, it is also crucial to create an intimate atmosphere in which ladies do not feel nervous.

5/ Post-purchase evaluation: The purchase decision-making process is not linear, it does not end with the payment. If consumers are satisfied with a brand based on their usage experience, they can more easily get on a „loyalty loop”. Moreover, loyal consumers prefer to share their positive brand experiences with their friends through word-of-mouth (Court – Elzinga – Mulder – Vetvik, 2009).

In this section, we examined two Marketing-related areas in connection with the topic – the importance of branding and the characteristics of consumer behaviour in the fashion industry. Based on the above theoretical frameworks, we created our research on the topic, which examines the impact of the brand on consumer behaviour.

3. Methodology

The present paper examines the impact of the brand on consumers and their purchase decisions in the context of the lingerie market. In our research, we focused on the bra segment because purchasing a bra is a more complex and riskier process for women. The focus of our research is to study the role of different product attributes and brands on customers, to map the consumer decision-making process and shopping habits in the lingerie market and to examine the choice preferences of women with smaller- and bigger-sized breasts. Our goal is to explore the secrets of successful branding tactics in the lingerie market and to examine how companies can reach different target groups effectively.

We defined our research questions as follows:

- How do women choose lingerie? What expectations do they have for their bras, their utilitarian or hedonic features make these products more attractive?
- How is the process of buying a bra?
- To what extent are consumers brand loyal in the lingerie market?
- To what extent and how does wearing an item of their favourite lingerie brand contribute to consumers' self-image?
- What customer groups can be distinguished? What are the characteristics of each segment?

The research included three methods: in-depth interviews, collage technique, and online questionnaire. During the in-depth consumer interviews, we examined questions related to consumers' product and brand selection and to their purchase decision-making process. We conducted a total of 8 in-depth consumer interviews. We chose this qualitative method because purchasing lingerie is a sensitive, intimate topic that justified the face-to-face conversation.

After the examination of the market structure, we selected three brands that perform outstandingly in Europe. After the interviews, we studied consumer associations and attitudes related to these three brands with electronic collage technique. The participants made an image composition on their own focusing on the topic.

Based on the experience and insights we gained from the qualitative research, we also conducted a quantitative market analysis. We made the questionnaire using Qualtrics software and then evaluated the results with the SPSS software package. The questionnaire was filled out by 310 consumers, however, only 274 of these were valid and relevant to our research. 22 male and 14 women who do not wear bra also filled out the questionnaire. It is important that we used simple random sampling, thus the representativeness of the sample is not ensured.

4. Results and discussion

4.1. *The results of in-depth consumer interviews*

During the in-depth consumer interviews the followings were examined: (a) brand and product choice preferences, (b) brand loyalty, (c) consumer purchase decision-making process, habits and attitudes. 8 in-depth interviews were made with women aged 23-54. In this section, we summarize the main experiences gained during the in-depth consumer interviews.

Both the hedonic and functional characteristics of the bras were essential for the respondents. Regarding the hedonic product features, they emphasized it is equally important that them and their significant other both like the given piece. Thus, wearing the right bra can result in „self-congruence” as well as contribute to developing our social self-image. However, ensuring comfort and a sense of freedom is the most important factor. If a bra provides comfort, it can make the wearer feel much more confident, which also contributes to the development of their self-image. At the same time, the respondents are willing to sacrifice comfort for the sake of attractiveness in a more special event (e.g. anniversary). Younger respondents were less brand loyal, they are more impulsive and/or price-driven consumers. In contrast, interviewees of middle age or with larger breast size said that they are loyal when they find a brand that they like.

The respondents purchase bras every 3-6 months in an intimate apparel store. In most cases the trigger is the worn-out of the items or marketing promotions. Also, a few of the respondents impulse buy lingerie or they purchase it for a special occasion. They usually enter a store because of the decorative, eye-catching shopwindow or the colourful, unique range of products. Bra purchase through an online webshop is not preferred due to potential size issues and the importance of touching the items.

They also prefer to gather information in the store, most of them do not follow brand pages online. The respondents also mentioned fashion magazines and social media pages of various opinion leaders as a platform for gathering information. Influencer content is welcomed with some scepticism, it is not considered as credible source of information. Yet, it attracts their attention, which can even encourage them to visit a specific brand store.

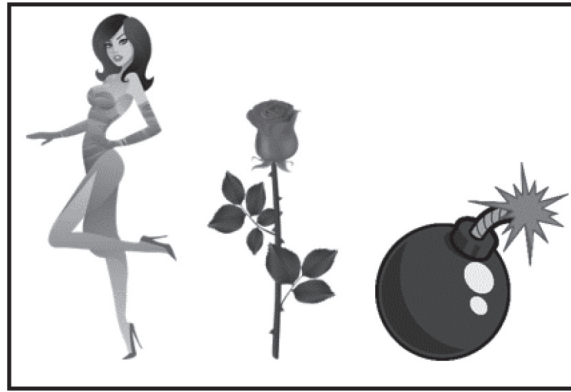
Trying on lingerie can be exhausting because of the undressing and dressing up, and women larger-sized breasts can also face anxiety during the process. Respondents also highlighted that many ladies are unaware of their bra size. Pleasant, informative store environment and competent, empathetic store staff can ease this risk. For larger breast-sized women, the lack of durability of the bra can also be a significant risk.

4.2. The analysis of the electronic colleagues

As we explained earlier, we selected three brands that perform outstandingly in the European market, namely Intimissimi, sloggi and Triumph. We examined the consumer attitudes and associations related to these brands in the framework of electronic collage technique. We asked the respondents to make an image composition using the given pictures in the following topic: 'What Triumph, sloggi and Intimissimi lingerie brands mean to me.' We also asked them to provide an explanation of the collage they made. In the following, we analyse the consumer associations related to each brand separately.

Consumer associations and attitudes related to *Intimissimi* brand (Figure 3): The most common elements used by the respondents were the rose, the bomb and the young woman, which emphasize the sensual and feminine nature of the lingerie. Based on the collages, the brand ensures confidence and pleasure to the wearer. This means that Intimissimi is thought to be a hedonic brand, which wins ladies heart with its sophisticated style. While wearing Intimissimi lingerie, the respondents imagine themselves to be a young, attractive, and confident lady who is very sophisticated.

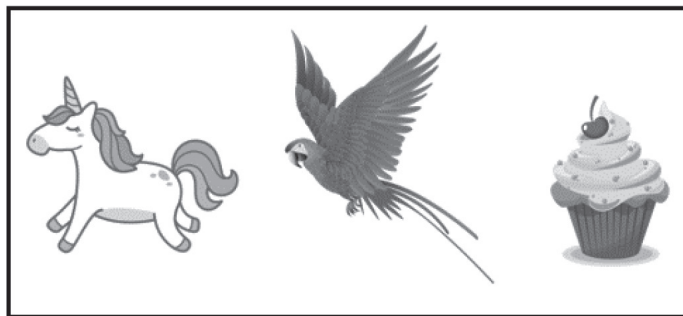
Figure 3: The most used images in the electronic collages in case of Intimissimi brand



Source: Own compilation

Consumer associations and attitudes related to *sloggi* brand (Figure 4): Respondents think *sloggi* is a colourful and cheerful lingerie brand targeting youngsters. In the compositions, these traits typically appear through the symbols of the unicorn, parrot, and cupcake. The authors of the collages defined the brand as a comfortable wear, the feelings of invisibility and liberty are emphasized on the collages. While wearing a piece of this brand, several respondents described themselves as a young, athletic girl who felt free and comfortable.

Figure 4: The most used images in the electronic collages in case of *sloggi* brand



Source: Own compilation

Consumer associations and attitudes related to *Triumph* brand (Figure 5): The creators of the collages believe that *Triumph* is a brand targeting a more conservative, older age group. However, it was also highlighted that this lingerie brand is sophisticated and feminine, its quality has never disappointed them. In several collages, the brand and sales staff are also described as competent and „wise”, the

Triumph brand has a lot of experience in providing reliable service to women - this is symbolized by an owl on the compositions.

Figure 5: The most used images in the electronic collages in case of Triumph brand



Source: Own compilation

One author portrayed the three brands based on their relationship to each other: „On a time horizon, I imagine that at first I am a sloggi, then an Intimissimi and finally a Triumph consumer.” Overall, we were led to the conclusion that sloggi and Intimissimi lingerie is purchased by younger age groups, while the target group of Triumph consists of older ladies. In addition, Intimissimi brand is purchased by consumer groups who prefer hedonic values, while sloggi and Triumph are bought by a segment for which comfort and functionality are the most important factors when purchasing bras.

4.3. The results of the online survey

The aim of the online survey was to examine certain consumer groups that can be identified in the lingerie market. In total, 274 usable questionnaires were received, and this sample consists of women within the 18-68 age range. The average age of the respondents was 29 years, the majority of the respondents was aged 18-25 (63,9%). In addition to demographic characteristics, it is important to highlight breast size as a key criterion. Respondents were asked to indicate what breast size they had. 33,2% of respondents indicated larger breast size and 20,1% had a smaller breast size according to their own opinion.

We examined respondents' general bra purchasing habits using a six-point Likert scale (Strongly disagree - Strongly agree) on questions about shopping habits, product preferences and brand loyalty. Based on their answers, we identified 4 separate attitudes among respondents with factor analysis:

- Hedonistic attitude: for them, bras ensure pleasure and hedonic values. Thus, they prefer more feminine pieces over comfortable, basic ones. The process of purchasing a bra is also an enjoyable activity.
- Individualist brand-switching attitude: respondents with this attitude prefer low-price lingerie. They are unwilling to pay more for a high-quality, premium item. They reject the support of sales staff; they are even disturbed when someone tries to help them. They do not tend to be brand loyal.
- Brand loyal attitude: The high-quality and durability of the bra is crucial for them. They prefer items that last for more years and can be „loyal companions,” just like a good friend. They are extremely brand loyal, when they find a lingerie brand or product that suits them, they stick to it.
- Amateur attitude: These respondents are anxious during bra shopping. They are not lingerie experts, comfort and functional aspects are often neglected when making their choices.

Compared to age and breast size, we only found significant relationship in case of the Individualist brand-switching and the Amateur attitudes. The former attitude is more present in case of respondents with small-sized breasts between the age of 18-25. Amateur behaviour is possessed by women with larger-sized breasts over the age of 31.

Based on the attitudes, 6 distinct consumer groups were formed with cluster analysis: the segments of ‘Expert Emily’, ‘Conservative Catherine’, ‘Task-oriented Teresa’, ‘Experience seeker Eva’, ‘Lost Laura’ and ‘Negligent Nora’. In the followings, we present their characteristics and the best tools to target and encourage them to choose our brand (Table 1):

Expert Emily’s segment (23,4% of the respondents) consists of consumers experienced in bra shopping. Buying lingerie is a completely hedonic process for them. They don’t need the help of staff due to being competent lingerie consumers, they know exactly what style and size fit them. They prefer more feminine pieces; the group consists of women with medium-sized breasts. They tend to be more brand-loyal, but they are also open to brand-switching as they like to try novelties. Expert Emily’s segment should be encouraged to become even more brand loyal with decorative lingerie range, as well as with unique atmosphere provided during bra shopping.

Conservative Catherine’s segment (13,1%) is an inexperienced consumer group, the members of which are not bra experts, they tend to be anxious during bra purchasing. They are not sure about what kind of bra fits them, so they usually choose the wrong style or size. Half of the segment is women with larger sized breasts, for whom the bra’s functionality, quality and durability is key. They

seem brand-loyal, however in our opinion they rather choose out of habit. This segment should be educated with marketing communication materials or the experienced help of the staff, as a result of which they can potentially become more loyal consumers.

Table 1: The different consumers groups identified (N=274)

Name	Expert Emily	Conservative Catherine	Task-oriented Teresa	Experience seeker Eva	Lost Laura	Negligent Nora		
Hedonistic attitude	✓✓	X	XX	✓✓	XX	✓		
Individualist brand-switching attitude	✓	XX	X	✓✓	✓✓	XX		
Brand loyal attitude	✓✓	✓✓	✓	XX	X	XX		
Amateur attitude	XX	✓✓	XX	✓✓	✓✓	X	Total	Is the difference significant?
N	64	36	83	37	19	35	274	N/A
Proportion	23,4%	13,1%	30,3%	13,5%	6,9%	12,8%	100%	N/A
Average age	24,06	34,00	29,83	28,22	26,11	33,74	29,05	Yes
Small-sized breast women	26,6%	8,3%	20,5%	24,3%	26,3%	11,4%	20,1%	No
Medium-sized breast women	48,4%	41,7%	47,0%	56,8%	31,6%	45,7%	46,7%	No
Large-sized breast women	25,0%	50,0%	32,5%	18,9%	42,1%	42,9%	33,2%	No



Source: Own compilation

Task-oriented Teresa (30,3%) is a customer segment that includes functionalist consumers experienced in bra shopping. Buying lingerie is not an exciting experience for them, they see it as a task they need to complete. Brand-loyalty is not very common among them, they need the bra to be functional. We believe that this segment can also be targeted by emphasizing the functional features of bras. Companies need to provide transparent shop atmosphere to help them navigate more easily.

Experience seeker Eva's segment (13,5%) consist of consumers with fully hedonistic characteristics. They are not bra experts; they often sacrifice comfort in favour of femininity when it comes to buying bras. They are not brand-loyal at all, they tend to buy the products that they like, impulse-buying behaviour is also common among them. Quality is neglected during their lingerie purchases; they prefer cheaper bras. The attention of Eva's segment can be aroused with eye-catching marketing communication messages, a colourful shop window and unique product range.

Lost Laura (6,9%) is a segment of inexperienced, brand-switching ladies, who prefer low-priced products. Functional pieces are preferred among them, and mostly large-sized breast women embody this segment. They don't need the support of the store staff; we believe they are afraid to ask for help. Companies would need to educate this segment with supportive marketing communication materials placed in the store and by providing a calm, intimate store atmosphere which encourages them to ask for help.

Negligent Nora's segment (12,8%) is a „bored” consumer group who aren't keen on buying bras. Companies need to invest the least amount of energy in this consumer group and they should rather focus on segments that are more prone to be brand loyal.

5. Managerial implications and further research directions

Based on the qualitative and quantitative researches, we could gain deeper understanding of women's lingerie and bra shopping habits and their motivations. The main insights as follows: in terms of store and product preferences, the functional and hedonic characteristics support each other, both aspects are important in case of bras. Consumers' self-image is supported by the sense of comfort and their confidence that comes with it. In addition, consumer segments with distinct characteristics were identified.

As a summary of the research, we make suggestions for lingerie companies on the secret to successful branding in the lingerie market. We present the product attributes and factors crucial during the consumer decision-making process of bra purchase in order to support our customers:

- The hedonic and functional components of a bra are equally important for women. However, the comfort and functionality of the bra – in other words ensuring strong support - are key when choosing a bra. Companies need to emphasize these attributes during their marketing communication activities. These product features can serve as points of difference, making it easier for consumers to choose.
- Lingerie companies should also provide experience during the consumer decision-making process. This can increase the brand loyalty of consumers. Ensuring an intimate atmosphere in the stores is key – companies can support it by providing factors such as slow music and soft scents.
- Sales staff also has a key role in supporting ladies and encouraging them to purchase. Thus, not only consumers, but personnel also need to be motivated and educated to be able to perform the tasks with high expertise and help ladies in their decision-making processes.

- Distinct customer segments can be targeted using different tools. Emphasis should be placed on the positioning of a given product: younger, brand-switching ladies are attracted to the hedonic properties of products and store factors (such as unique product portfolio and eye-catching shop windows). While more mature women prefer functional characteristics and comfort.
- Women with large-sized breasts and older ladies are valuable consumers who deserve special attention. They are mostly brand loyal, so companies need to make them committed consumer by providing loyalty programs, in-store detailed marketing communications materials, and with the presence of experienced sales staff.
- Consumers usually gather information in the store itself or through brand websites and online webshops. The presence of influencers is not negligible either - it is true that the content they sponsor is not considered a credible source of information by the respondents, but consumers can get to know the new collection of a given brand and they can be encouraged to visit the store.
- It is also necessary to emphasize various occasions (e.g. Valentine's Day, Christmas), as they can boost demand.

The study only presented a slice of this interesting research field. Observation of the store environment and consumers may provide additional research opportunities. In this way, the behaviour of consumers during bra purchase can also be examined. The significance of the social self-image is also an interesting area of study – the men's influence on women's shopping habits could be analysed. Also, due to the coronavirus situation, the lingerie market has faced a lot of obstacles, since stores were closed and while working from home, ladies might not wear bras. The changes of consumer habits due to the pandemic could also be examined further.

6. Acknowledgement

Over the past 30 years, I have worked with Professor Simon in several areas. She honoured me with her confidence and together with Professor Schmalen, they fully supported me in attending the DSG Training Programme. Thus, I could gain great experience in international education. From the institute, Professor Simon coordinated the L'Oréal International Marketing Strategy competitions, and I could support teams as a consultant. As a result of our cooperation, teams from the university regularly won the domestic finals. Her exceptional work and endeavours so far have increased the international recognition of the institution, which is reflected by her honorary doctorate degree from the University of Passau.

Dear Judit! Congratulations and best wishes for the future, Károly Ötvös

I am thankful for getting to know Professor Simon. I am grateful that Marketing Research has been one of the most useful subjects of my university master's program. I feel that I gained such valuable theoretical and practical knowledge what I will definitely use in my future career. Thank you for the university lessons spent in a nice atmosphere and that you tried to teach us strictly, yet in an encouraging manner. Thank you for your support together with Professor Ötvös during writing my thesis when you helped me face the obstacles, and for contributing to an excellent research. I wish you a happy birthday and hope to see you in person soon, maybe in one of your classes with me as a guest lecturer. Best wishes, Dorina Antal

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**Laudations for Professor Judit Simon to
celebrate her 70th birthday**

Internationalisation is the key to the future of universities

Carola JUNGWIRTH

Prof. Dr. Dr. h. c. Judit Simon is both an honorary doctor and an honorary citizen of the University of Passau. The reason for honouring her in more ways than one is easy to explain:

The internationalisation of universities is a decisive factor for their future development. This also applies to the University of Passau. Many students from abroad have recognized its attractiveness, its international reputation and its excellent but compact facilities. It has set itself the goal of becoming one of the leading centres in Europe for interdisciplinary research into the effects of digitalisation on society. Preparing students for the international job market is an essential aspect of teaching and studying at the university. Through internationalisation, it offers its students and teachers the best possible starting point for living and working in a globalised world.

Judit Simon has been committed to realizing this vision of the University of Passau since the early nineties. After the opening of the borders, she was one of the first to recognize the opportunity for cooperation with an Eastern European-oriented university. And she did it by choosing the University of Passau as her research and teaching partner. But she did not only do this for herself. She also established an institutionalised partnership between the two universities she loved. As a citizen of one of the true European centres, Budapest, and as a professor at one of the most prestigious universities in Europe, Corvinus University, she really had a sense for this bridge-building.

In 1997, she took over the management of the German-language Business Administration programme for 20 years. The aim of the joint teaching and study programme of the University of Passau and Corvinus University Budapest is to provide a comprehensive academic education. It promotes the next generation of academics and offers students who aspire to a non-scientific career an independent, valuable qualification. Both universities attach great importance to students being able to complete the programme in the standard period of study, and

the quality-assured design of the programme is a matter of concern to them. The strategic importance of study and teaching is expressed in the attention the programme receives not only from students and professors, but also from deans and university presidents.

We are deeply indebted to Prof. Dr. Dr. h. c. Judit Simon for this project. The DSG Corvinus-Passau German-language degree program is largely based on her very personal commitment. Judit Simon also shows her very personal identification with the University of Passau in the fact that she is fundamentally interested in everything that happens at the university in Passau. If I want to understand my own university, I ask Judit. Today, Judit, I congratulate you on your 70th birthday and say thank you on behalf of the entire School of Business, Economics and Information Systems at the University of Passau for your friendship and for your trust in us. We are all grateful to you.

Prof. Dr. Carola Jungwirth

Laudation for Professor Judit Simon

Ajay K. KOHLI

Dear Judit,

hearty congratulations on hitting this significant milestone! I wish you many happy returns of this day!

You have made many important contributions to our knowledge of buying behaviour, customer satisfaction and patient compliance. Besides doing your own scholarly work, you have gone out of your way to help tomorrow's scholars develop their potential. I truly applaud and admire your looking out for them. I am with you in spirit as you celebrate this wonderful occasion! It is a great pleasure to know you, and I look forward to the next time we meet in person.

Regards,

Ajay

Laudation for Professor Judit Simon

Tommi LAUKKANEN

It is my great pleasure and a true honor to give this laudation for Prof. Dr. Judit Simon. I want to begin by recalling my first official meeting with Judit back in 2009. At the time, I was a recently appointed young Acting Professor of Marketing seeking international connections and collaboration. I had contacted Prof. Dr. Agnes Hofmeister, Dean of the Faculty of Business Administration at the Corvinus University of Budapest, to enquire about the opportunity to establish an Erasmus teaching exchange between our universities, and the interest in such a proposal. Her response was positive, and she asked me to contact Judit, who was then serving as the head of the Institute of Marketing and Media at the Corvinus University of Budapest. And so my academic relationship and collaboration with Judit began.

It was mid-March, a sunny spring day in Budapest, when I met Judit at her spacious corner office with a magnificent view of the Danube. Frankly, I was amazed by the symbols of power the old building displayed. I confess that when I was waiting for our meeting in the secretary's office, I was nervous. Then my turn came, and I was invited to enter Judit's office. Let me say how much I appreciated the warmth of her reception. She had set aside time for me, and showed sincere interest in me as a colleague and in our nascent collaboration. Ever since, on my annual visits to Corvinus University, she has always greeted me with warmth and sincere cordiality. We have had rich discussions in the office, classroom, and at lunch at nearby restaurants about work, politics, and life in general. These discussions have inspired me in my personal life and career.

Judit excellently exemplifies the internationally oriented Hungarian scholar. Her academic network is remarkable. Unquestionably, her warm hospitality has made a visit to the Corvinus University of Budapest an enjoyable experience for scholars from all over the world. I am convinced that she has laid the ground for younger colleagues to easily build academic relationships and networks in the future. Judit has always been active in attending and organizing academic conferences and events. Most recently, in February, I had the pleasure of chatting with her at the American Marketing Association (AMA) Winter Conference, which was organized online due to the Covid-19 pandemic.

I am grateful to Judit for providing me with the opportunity to meet several scholars and give lectures to business students at the Corvinus University of Budapest. Visits to Budapest have become part of my annual routine, and I hope this will continue in the years to come.

It is my great pleasure to pay tribute to Judit's illustrious academic career and congratulate her on her birthday.

Prof. Dr. Tommi Laukkanen

For Judit Simon

Jan H. SCHUMANN

Dear Judit,

It is a great pleasure for me to be able to contribute to this *Festschrift*. I would not only like to celebrate your 70s birthday but also to honor all the work, and most importantly love and passion, you invested in the collaboration of our Universities. When I came to the University of Passau about ten years ago, I was yet another new Marketing Professor in a longer row of colleagues. There was a strong legacy of very honorable colleagues, who developed the program together with you, such as Prof. Dr. Schmalen, or who were also involved in and devoted to this program, such as Prof. Dr. Spann and Prof. Dr. Klarmann. In addition, there were several Professors on a short-term appointment. Thus, there were enough reasons for being tired of investing your time and energy in another new colleague. Yet, when I met you for the first time and you introduced me to the cooperation, you did this in such an engaged and personal manner that I was directly drawn into the program. It was very clear how important the cooperation is for you, both on a professional but also on a personal level and how open and interested you are for new contacts and people. I got to know many stories of the history of the program and of the colleagues that you have worked with over the course of the years that were always positive and full of appreciation and that valued the colleagues both in terms of their achievements but also on a very personal level. At the same time, you do not live in this past but always stay up to date and curious. You always find time for personal meetings when you are in Passau or I am in Budapest and show interest in our School, the University and how I and the colleagues are doing. I believe that your very personal approach does not only characterize you but actually spilled over and set the tone for the entire cooperation. You managed to inspire many colleagues and thus created a strong network of colleagues that make this cooperation sustainable and strong. Very often, such cooperations depend heavily on individual persons. You, however, managed to actually develop a network of people that takes and will take care of it, while at the same time enjoying your ongoing involvement in the program. I think such a smooth transition is rare and yet another achievement in your career that you can be very proud of. You already look back on a very long and successful career, for which you were repeatedly honored. It would be beyond the scope of this short laudation to sum up all these

achievements. I believe that the fact that you were honored as honorary citizen of my University, the highest honor that we award, reflects and illustrates these achievements very tellingly. What I find at least as telling and important, though, is the fact that you always remained a very humble and approachable person, not only for your colleagues but also for the many junior scientist and students who are in contact with you. I appreciate this very much!

Happy birthday, dear Judit! Unfortunately, the pandemic currently does not only prevent me and my colleagues from coming to Budapest but also you from coming to Passau. I hope that the situation will improve this year so it will also be possible to congratulate you in person. I wish you all the best and hope that you will continue to support and inspire our cooperation for many years to come!

*Prof. Dr. Jan H. Schumann,
Chair of Marketing and Innovation, University of Passau*

Laudation for Festschrift Professor Judit Simon

Martin SPANN

It is a great honor for me to contribute a laudation to the Festschrift for Professor Judit Simon. I want to focus on her scientific career and achievements in the field of Marketing and beyond.

Judit Simon studied national economic planning and analysis as well as economic mathematics at the Karl Marx University for Economic Sciences in Budapest, today's Corvinus University. After completing her doctorate in economics at the same university, she worked for the State Planning Office of the People's Republic of Hungary in the field of planning economic activities until 1988. In 1989 she took over a lectureship at the chair of market research and consumer behavior at Corvinus University. In the following years she took on additional research and teaching-related tasks. Particularly noteworthy is her leadership of the German-language course in business administration, which has existed since 1997. In 2007 she completed her habilitation in business administration and became Professor and Head of the Institute of Marketing and Media and Director of the Research Center for Health Care Marketing. In between, she has spent several research and teaching stays abroad. Among other things, she visited the Vienna Institute for International Economic Studies and the Friedrich Ebert Foundation Research Institute in the 1980s and completed the Advanced Management Program at Harvard Business School in Boston in 1994.

Judit Simon's research is broad, multidisciplinary and led to numerous national and international publications. At its core, her research is devoted to the areas of health care and pharmaceutical marketing, market research, consumer behavior and business-to-business marketing. This gives her an impressive range of research aspects in marketing and related areas. I would particularly like to highlight her research on interdisciplinary issues at the interface between health, consumer behavior and marketing, which is an increasingly important field of research against the background of an aging society and certainly in times of a pandemic.

Professor Simon produced an impressive oeuvre of scientific work. Her research has appeared in international refereed journals, Hungarian refereed journals, conference papers, books and book chapters. This research activity is all the more significant also taking into account her many activities in academic self-administration and beyond.

Judit Simon has always been very committed to the scientific community, such as her activities in academic self-administration: In addition to the management functions already mentioned, she has held various faculty offices. She served on the editorial board of *Industrial Marketing Management*, *The IMP Journal*, and *Marketing and Management*. From 1993–1997 she was director of the Austria-Hungary Action Foundation.

Her many activities around the internationalization of Hungarian marketing science need also be mentioned. I would particularly like to highlight that she was one of the main organizers of the European Marketing Conference (EMAC) at Corvinus University in Budapest in 1996. Anyone who has ever participated in an EMAC conference is aware of the size of this task. In 1996 this was the first EMAC conference ever at a university in the former socialist Central and Eastern Europe. This also shows Judit Simons' great commitment to research.

Judit Simon has always been very committed to training young scientists. I would also like to emphasize her outstanding contribution to the international education of students in connection with the joint study program between Corvinus University and the University of Passau. In 2014, the Faculty of Business and Economics at the University of Passau awarded her an honorary doctorate. In summary, Professor Simon has accomplished impressive achievements during her academic career. I hope and look forward to more productive years and scientific exchange.

Prof. Dr. Martin Spann, LMU Munich

Judit, me and the team

Krisztián SZÜCS

I remember very well our first personal meeting on the 18th of September in 2008, as Professor Judit Simon was one of the reviewers of my PhD dissertation. Although I've heard of Judit before, we somehow didn't get in touch previously. Though we taught and researched in a very similar field, the dissertation eventually connected us.

I will never forget the sentence in the review in which Judit was pleased to refer to an article by Nunally when examining the internal reliability of measurement scales. Back then, I didn't understand why this was so special. Now I know.

I am grateful for the review and especially for the opportunity to get to know Judit, as she has opened up many new perspectives for me by being invited to several of her projects after the defence. I was first asked to co-author a marketing research book, which we could thus write together with other faculty members of the Marketing Institute. In addition to gaining insight into the behind-the-scenes of book writing, I also got to know several members of the Institute. Moreover, for up to a few semesters, I was even able to teach part-time master students at Corvinus University. It was an excellent opportunity to expand and deepen our professional connection.

After one of our excellent students contacted me that she would like to join a doctoral program in Budapest, I immediately recommended Judit to her. I already knew that this was a good idea but did not know that Ildikó would be an important link in our future collaboration.

Judit, as the Head of the Marketing Institute that time, built research competencies and relationships with amazing dedication and perseverance. She invited renowned researchers and lecturers to the institute to present and teach young researchers everything they need for publications that are also competitive internationally. Some of my colleagues and I were also invited to these seminars, where we could learn about the latest methods and how to build the conceptual framework.

I cannot recall exactly when and how the idea of our joint research was born, perhaps it was the suggestion of Ildikó, who was already working on the research part of her own dissertation. The idea was followed by a series of consultations and then the writing of the research plan, in which Ákos was also involved. Our plan was, as a result of the research project, that in addition to the conference presentations and papers, two PhD degrees will also be produced. Because of this, quite a variety of topics were included in the research plan, which turned into a comprehensive, challenging project after we received the grant. But we succeeded, not only did we close the project successfully, the two PhD degrees were also born.

Now, we might already state that this project really forged us together, formed us into a team, which is still working on new research topics. A team in which roles and responsibilities are formed, in which everyone knows how to contribute to the success of the project. And in our team, there is no doubt that Judit is the leader.

Leader, in a very broad sense of the term. She is an excellent mentor who supports her colleagues with her advice and experience. At the same time, she shows the right direction when the team needs it. And when we think to have the final version of any materials, she points at correlations, results that are even more relevant. Not to mention the selflessness with which she shares all the relationships she has built herself.

I am convinced that not only me but all of us learnt a lot from Judit. And we are still learning. From her, with her. Not just academically or professionally, but also from humanity and collegiality.

I am grateful to have been able to meet Judit in September 2008 and also to have been working together ever since.

Thank you, Judit.

Krisztián Szűcs

Laudatio Professor Dr. Dr. h.c. Judit Simon

Niklas WAGNER, Nina ANOLICK, Harald KINATEDER, Patrizia PERRAS

It is our honor to be able to add this Laudatio to the present *Festschrift*, which marks the 70th birthday of Professor Judit Simon. Via both her intellectual leadership and her vast commitment and hospitality, she has been the central driving force of the German language education program, DSG, ever since its inception in 1993. Over three decades, Professor Simon very generously gave all her support to the program. Her tremendous commitment has sustainably built close links between Corvinus and Passau. Colleagues, lecturers, students and graduates always appreciated Judit Simon as a caring, friendly and warm-hearted contact. With all her dedication, numerous Hungarian bachelor students were motivated to expand their language skills and to enroll in the DSG program. Double degree master students spend part of their studies in Budapest and Passau, which also increased the awareness and reputation of the University of Passau in Eastern Europe. Her constant motivation and encouragement helped us all to get involved, stay involved and today makes us look forward to being part of the program in the future.

The Passau DSG Organization Team,

MSc Nina Anolick

Dr. Harald Kinateder

Dr. Patrizia Perras

Prof. Dr. Niklas Wagner (Director)

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Ágnes ZSÓKA

Dear Judit, you are one of the most committed and hardworking persons I have ever known. I feel honoured to have been your student in the 90s, decades later your colleague and then your successor in DSG, the German speaking Business and Administration Study Program of Corvinus University. I could follow your professional life through this lens, and I would like to express my true admiration to your achievements, your continuous and unbroken devotion to all important causes, the internal flame which you constantly nurture, despite all difficulties you face. Challenges seem to inspire you all the time and fighting for good purposes makes you even stronger.

As one of the first DSG students, I had the chance to witness how you, Judit built up the German study program in the 1990s, from nothing, together with Professor Schmalen from the University of Passau and a group of committed Hungarian and German colleagues, who were ready to take the journey, year by year. Your enthusiasm and persistent, conscientious work made you THE face of the program which you have personally identified with, from all your heart. You have established very good relationship with the colleagues from both universities and the DSG students alike, which has a life-long reflection in the cohesive and collaborative community of DSG.

I am deeply grateful to you, Judit, personally, for your constant support and contribution to the very existence of DSG and its success, even after I received your position as director, 5 years ago. You relentlessly devote your time and energy to caring about the colleagues, business partners, students (both alumni and current ones). You constantly help me by inventing and implementing new ideas which are very important to keep DSG an inspiring and high-quality international program and a live community. I cannot enough thank you for your mentorship, passion, and honest support.

Judit, you are a crucial role model for me with your strength, perseverance, optimism, and devotion. I truly hope that you will stay with us for several further years, and we can continue working together in the DSG and at the university. Happy birthday to you, from all my heart!

Ági

Dr. Ágnes Zsóka, Institute of Marketing, Corvinus University of Budapest