

WHICH IS MORE IMPORTANT? INFORMATION TECHNOLOGY USE AND PERSONAL RELATIONSHIPS IN B2B MARKETS

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Abstract

Traditionally personal, face-to-face interaction was considered to be the most important way of communication in the business to business (B2B) world. However information technology (IT) development and its effects on business activities, marketing and interactions received more and more attention in the last decades (Castells 2005, Glazer 1991, Leverick et al. 1998, Salo et al. 2005). It is argued that IT usage brings fundamental differences in the way business partners interact with each other (Leek et al. 2000) and as the result the methods of information exchange have been transformed. Researchers opinion on this phenomenon is not unified. Some researchers found information technology to increase the frequency and the effectiveness of communication (Leek - Turnbull 2004) while others state the negative impacts of IT usage on relationships (Lindh et al. 2008). In this paper we analyse whether the spread of information technology terminate the importance of personal face-to-face relationships in inter-organizational relationships or not. We present the results of our two stage research, which draw the attention to the fact that while information technology transforms the inter-organizational relationship handling techniques, the personal encounters remain significant.

Keywords: personal relationship, information technology, loyalty, business relationships

1) competitive paper

INTRODUCTION

The theoretical and empirical analysis of inter-organizational relationships has gained priority in marketing, strategic management and innovation management as well in the past twenty years. The basic value driver categories affecting the success of inter-organizational relationships have been more or less revealed already. Researchers dealing with inter-organizational relationships are focusing more on the analysis of change, formation and manageability of these values. Researches aimed at examining the relationships have successfully explored innumerable dimensions; however, studying the effect of information technology (IT) has recently played a substantial role. Some research emphasize that IT primarily restructures the management of inter-organizational relationships, and the earlier frequently studied dimensions, such as trust, commitment, personal relations, or the less often used inter-organizational loyalty, are marginalized. In our view, although the IT is spreading in Hungary, its effect is not by far as significant as in other continents and countries. This is due to the Central European organizational culture on the one hand, and it is a consequence of the crisis on the other. As a result of the crisis classical dimensions of the successful relationship management are increasingly important again. *We believe that during inter-organizational relationships both ways of interaction can be effective, and they jointly play important part in the parties' valuation of the relationship.*

The present study summarizes our research results that analysed the dimensions of IT and personal relations, as well as loyalty, in the case of which we put a particular emphasis on how the crisis has influenced relationships. In the first section of our paper, we briefly describe the theoretical background, then we summarize the circumstances of our primary research and the most important results.

CHARACTERISTICS OF B2B RELATIONSHIP MARKETING

In the past two decades, relationship marketing has been gaining increasing ground due to the changes occurred in business philosophy and thus in marketing strategy. Many researchers consider this change as a paradigm shift in marketing. According to Peppers and Rogers (1995), the aim of this new marketing paradigm is to give an organization a reserve based on which the organization can treat its clients as individuals and thus it can develop a continuous business relationship with them. Gummesson (1994) regards relationship marketing as a “paradigm accumulation”, which indicates that a science or a discipline has been given new bases, with new values, new assumptions or methods.

The significance of relationship marketing has also opened new directions in B2B markets. Research emphasizing the essence of relationship marketing has actually begun with the analysis of B2B markets (Hakansson - Osteberg 1975, Ford 1980, Morgan - Hunt 1994), but the theories of psychology (Thibaut - Kelley 1959), economic sociology (Granovetter 1992) and social networks (Burt - Minor 1982, Burt 1992) have also considerably influenced the defining of the long-term relationships determinants.

The different researches identify the following characteristics of stable, long-term relationships: perceived quality, satisfaction, commitment, trust, cooperation and loyalty.

Some authors analyse the effect of customer *satisfaction* and relationship quality on retaining customers (this phenomenon is also known as bought loyalty) (Hennig-Thuaru - Klee 1997). The

central components of such a model are customer satisfaction, relationship quality, and their effect on retaining customer (on loyalty).

In the model, relationship quality can affect loyalty through commitment and trust, but the effect is not unambiguous. In addition, the model also implies that satisfaction, perceived relative quality, the assessment of relationship quality, commitment and trust collectively cannot signify loyal customer behavior either, because other factors (internal psychological, contextual and situational) can influence the decision of the customer.

In buyer-seller relationship *commitment* is defined as a kind of willingness of partners to maintain a continuous relationship with each other (Dwyer et. al. 1987), in more simple words, commitment means that the involved parties are motivated to maintain the relationship (Moorman et al 1992). In B2B relationships, commitment signifies a psychological attachment as well, which can also be defined as a “permanent desire to maintain an important relationship” (Costabile 2000).

Organizations attract consumers with promises, whilst consumers decide based on the *trust* that a given company will satisfy their needs. For commitment to develop, trust is needed, the first step of which is “advanced trust” founded on perceived factors (Singh - Sirdeshmukh 2000; Vollmer et al. 2000). Personal relationship throughout the servicing process usually consolidates trust, thus the relationship as well and when consumers’ trust is not abused, then they long to establish and maintain a long-term relationship, which leads to loyalty (Evans - Crosby 1988; McKenna 1991; Vollmer et al. 2000). Dwyer, Schurr and Oh (1987) treat trust as a critical factor of the transition from discrete market transactions to steady relationships. The trust factor plays a determining role in Costabile’s (2000) dynamic model as well and according to him neither monadic nor dyadic loyalty can develop without trust.

Loyalty in B2B markets is a less researched area, but nevertheless some researches prove that loyalty can also be interpreted in inter-organizational relationships. Many researchers refuse the existence of loyalty in the inter-organizational contacts saying that the main objectives of an organization operating in the market are profit making and achieving growth, and since the notion of loyalty includes certain emotional commitment, there is no place of it here, so there is nothing to research on. In spite of these views both in theoretical and empirical research there are recently some clues, which indicate that there is place for researching on loyalty in the B2B context, there is a need for working on its definition and exploring its indicators. According to these results loyalty can be interpreted among the actors of the B2B market, and it is also possible to define it through different dimensions. Some researchers differentiate between behavioral and attitudinal loyalties and their results show that among the various factors trust and commitment are strongly related with loyalty (Rauyruen et al. 2005, Čater - Čater 2010).

In addition to the above factors, several studies deal with the role of *personal relations* during the analysis of inter-organizational relationships. The personal relationship is traditionally one of the most important building blocks of long term business relationships. The significance of personal relations is also present in Sholtes’ (1998) trust model, who has placed trust in the matrix of loyalty and capability. If the belief in both loyalty and capabilities has a high value between partners, trust can develop (Figure 1).

Figure 1: Development of trust among partners on the basis of loyalty to each other and the presumed capability level

		Capability <i>“The value I consider my partner is capable and qualified”</i>	
		low	high
Loyalty <i>“The value I believe my partner likes me and he will support me in the future”</i>	high	sympathy	trust
	low	distrust	respect

Based upon: Sholtes, 1998

Empirical research prove the importance of personal relations, e.g. as the appreciated contact person moves to a new organization, the partner also leaves the supplier and they buy from the contact person’s new company (Lindgreen 2000, Reynolds - Beatty 1999). Andersen and Kumar’s (2006) researches highlight that the absence of a positive human relation hinders the development, moreover, often the maintenance of the relationship. Other studies emphasize that personal relations can also have a considerable role in resolving conflict situations (Gedeon et al. 2009).

The qualitative results of our previous research (Hetesi - Veres 2004) also support that in a B2B market, relationship orientation does have a very important role. In the focus group discussions one participant said that *“Personal relationship is the most important thing; anything else helps very little”*. But we found a number of references to the relationship dimension in the interviews as well. *“A lot depends on personal relationships. Factors like personal relationships, sympathy or antipathy surely play a role in this, just like flexibility and quality.”*

THE ROLE OF INFORMATION TECHNOLOGY IN B2B RELATIONSHIPS

Today a substantial part of the changes occurring in the area of management sciences can be traced back to the development of information technology (Lindgreen et al. 2000, Pels et al. 2000, Sisodia - Wolfe 2000, Pels et al. 2004). With the help of the increasingly more efficient and more user-friendly database and information management (Holland – Naudé 2004) and the modern communication methods, several subfields of organizational management have become more efficient. Based on this information companies can easily become familiar with and follow their consumers’ ordering and purchasing habits, preferences in the long term, as well as the extent of profit deriving from serving each customer. Owing to this fact companies can improve their supply, formulate individual offers to solve their customers’ problems or deliver the product required by the customers to its destination more efficiently. Tong et al. (2008) studied the effect of information technology in inter-organizational relationships, since the buyer-seller interface has become technology-based in organizational markets too. Research pointed out that the intensive use of information technology can serve both transactional and relational approach.

Therefore, in each situation it is important to understand the aim of the technology usage, because sales automation supports transactional approach, while customer database and personalization supports relational approach.

IT development and its effects on business activities have been in the forefront of scientific thinking in the last two-three decades (Castells 2005, Glazer 1991, Salo et al. 2005). According to Brady et al. (2002) IT brings elementary changes in marketing. What is more, not only the marketing activities, the used methods or processes could also change. Technical competencies will have a central role in the marketing practice (Webster 1992), since the ability to handle technology will become one of the success factors of marketing professionals.

The majority of the researches analysing the effect of information technology on marketing – as we also do – defines IT not only as computer hardware but the software running on them as well, i.e. they consider the course of the information processing and managing activity as a part of information technology (Brady et al. 2002).

Managers most often decide on the introduction of information technology in the pursuit of one of three goals (Zuboff 1985). In the early days of the spread of information technology developments, the basic motivation was *automation*. Companies expected financial and time benefits from the introduction of new technology. Automated systems need less human labour and result in fewer errors and constant quality. Such systems, even though they demand substantial investment, can be operated more cheaply and even continuously by using their maximum capacity; thus higher level results are achieved faster (Dewett – Jones 2001). The application of technology also greatly enhances the practice of *information creation*. Information technology, even if it had originally been installed with the purpose of automation, continually provides information about the manufacturing process, often along with information which had not previously existed. “Information is power”, which is equally true for the course of business, production processes and marketing activities. The information provided by the technology makes it possible to gain deeper knowledge of the processes, thereby the changes aimed at increasing efficiency are able to reinforce the company’s competitive position. Insofar as the information necessary for decision making and operation is available, the company’s aim can be to *transform* the activities and *the business performance* and to take the opportunities becoming available by the usage of information technology (Brady et al. 2002).

The fast development of information technology experienced in the past decades especially in the field of computer manufacturing, consumer electronics, telecommunication (TV, telephone and Internet) and software industry (Brookes et al. 2004) and primarily the developments in the area of information and communication technology have caused a spectacular, sudden change in marketing practices. Naturally the providers of technological solutions have described the usefulness, cost-reducing effect and efficiency of technology, but not only success stories can be heard.

Technological development is becoming an increasingly important element of the company-client interaction. Moreover, some authors regard these technology based interactions as the key to long-term success (Meuter et al. 2000, Coviello et al. 2001, Brady et al. 2002, Ryssel et al. 2004). Ever newer ways of communication and sales are appearing, which involve customers

more and more in the value creation process. During the sales of products, companies often take the multi-channel marketing approach. The adaptation of technological solutions plays an important role in multi-channel sales.

Clients more and more often meet the opportunity for self-service; in the case of certain transactions, there is no other way than to choose the self-service mechanism in the virtual space. Whereas there are experts who attribute a very important future role to self-service technologies (Schultze - Orlikowski 2004, Fellenz – Brady 2006b), a part of the researches hold these very technologies responsible for the dissatisfaction and the leaving of clients (Brady et al. 2002). For the time being, the research results of this topic are not unified. For instance, in comparing interpersonal and audio-based (e.g. telephone) communication, researchers have found that during audio-contact, the communication between the participants became psychologically more distant and less personal, the participants experienced the activity as task-solving and they behaved in less spontaneous and cooperative ways (Leek et al. 2003). However, the company's aim with automation is precisely to change an activity requiring personal interaction into a simple, routine task, thus speeding up their service and decreasing their costs. Companies applying such solution must examine whether the benefits resulting from automation or those stemming from personal interactions and direct client relations are greater (De Wulf et al. 2001, Fellenz - Brady 2006a, Rebolledo et al. 2005).

The research of Leek and Turnbull (2004) has shown that the functions realized during the interaction between the seller and the buyer (e.g. generating ideas, information exchange, problem solving, evaluation, negotiation, crisis-intervention, social role and self-reinforcement) may work with different levels of efficiency by the use of different communication channels and solutions. The benefits of personal relationships may, in certain cases, be outweighed by the usefulness of IT solutions.

The effect of technological development touches upon most areas of marketing. Studying the literature reveals that besides information gathering, market segmentation and targeting, (mass) customization, customer relationship management (Rust - Espinoza 2006), client interaction (communication and sales), and further areas of the marketing mix (Brady 2003, Vilaseca-Requena et al. 2007, Zineldin 2000) have equally benefited from the development of information technology.

Although the experiences of the past decades indicate that the spread of IT devices has been slightly slower in marketing than in the case of other corporate functional areas, the effect of information technology is unquestionable in the development of marketing practices. The results of information technology development have closely interwoven with the evolution of marketing theory, thus today the terms of marketing activities supported by different information technologies signify both technology and marketing approach itself. Both in the business press and among scientific sources we can find approaches according to which IT solutions fundamentally change marketing and business activities rather than support it. However, since the dotcom bubble many people have been looking at all IT development cautiously, moreover, doubtfully, and they do not trust in the power of technology.

IT ENABLED VS. PERSONAL RELATIONSHIPS

Research of the IMP Group completed in the past three decades have led to recognition that one of the most important keys of the successful business relationships are the interactions between participating organizations. According to the *interaction approach* (Turnbull et al 2002), companies do not think in individual transactions, but in most cases these transactions form a long-term relation, and each transaction is only an episode of this relationship. However, in the course of the episodes, relationships develop not only between organizations but also between persons involved, which has a significant role in ensuring the long-term maintenance of the relationship. But business relationships do not exist by themselves. The parties involved in the relationship have several relations towards other market actors and these relationships can also have serious effect on the relation in question. Thus the dyadic relationship is none other than a slice of the network of relations connected to and dependent on each other (Leek et al 2000).

According to Hakansson (1982), market actors use both impersonal and personal communication methods for information exchange. They use impersonal communication methods to convey basic technological or commercial data, and personal communication methods to convey 'soft data' and information (e.g. in connection with product use, developing cooperation). However, this also seems to be changing with the spread of information technology solutions. For instance, Naudé and Holland (1996) assume that a new kind of strategic relationship can be formed with the help of IT-based technologies, since the application of technological solutions enables a more rational decision making. In the past decades, information technology has undergone a rapid development, as a result of which the number of solutions and devices used in the course of business contact has been multiplied. Besides personal (individual or group) communication, new auditive, visual or audio-visual solutions created through the development of telecommunication technology are now available to all enterprises. Owing to this, the traditional toolbox of information exchange completed in the course of the business process has also changed. In their research, Leek et al. (2003) found that about half of the people, who participated in the survey think that the usage of information technology for communication decreases the significance of personal meetings and makes communication faster and more accurate. A similar proportion of the respondents talked about the alienation, impersonation of relationships, thus becoming task-oriented at the same time. All this in turn can result in that it is more difficult to develop trust between parties and manage uncertainties at a lower level of satisfaction.

RESEARCH

The literature attributes an increasing significance to the analysis of the dimensions of loyalty between partners in B2B relationships. In the first phase of our research, we aim to analyse the problem by qualitative methodology in a way that enables us to learn about the maintenance and disruption of relationships during this last 4 years of crisis. The results found in this phase have prompted us to study separately the effect of the form of communication on the level of trust and loyalty between partners. For this we apply a quantitative methodology.

RESEARCH OBJECTIVES

We formulated the following objectives in the course of our *qualitative research*:

- to analyse the role of trust (based on personal relations), on loyalty and on the maintenance in a critical period;
- to analyse the effect of assumed loyalty dimensions on partner loyalty;
- to analyse whether the crisis-sensitive factors we assumed actually influence the maintenance and ceasing of relationships in a critical period.

Based on the results of the qualitative research, we aimed to get familiar with the connections of the form of communication and the dimensions of satisfaction, trust and loyalty. In the phase of the **quantitative research**, our objective was:

- to analyse the effect of personal communication on the dimensions of satisfaction, trust and loyalty;
- to analyse the effect of IT mediated communication on the dimensions of satisfaction, trust and loyalty;
- to analyse the forms of communication companies prefer in the period of crisis, and the most frequently used devices.

RESEARCH METHODOLOGY

During the primary research we used both qualitative and quantitative methods. For the research objectives established in the qualitative research we made *personal interviews* with the contact persons of companies operating in B2B markets. First we studied the opinions of the supplier's contact persons about the general and concrete effect of the crisis related to the maintenance of relationships, than we examined the contact persons' opinion about our hypotheses.

In the course of the research 31 in-depth interviews have been completed, where the representatives of small enterprises and market-leading companies also provided answers. The interviews took place between the autumn of 2011 and the spring of 2012. The respondents include the representatives of manufacturing and service providing companies and the representatives of their customers as well.

Based on the research results, we subsequently asked 403 companies through an *online survey*. We called the companies whether they would fill out the questionnaire. Afterwards those, who were willing to participate in the research received the link to the questionnaire by an email. 23% of the companies were willing to respond, so 92 questionnaires were completed, from which two had to be excluded during post-check, thus 90 questionnaires were analysed in total. We applied partial least squares modelling method to map the relationships between the factors forming the research model (Henseler et al. 2009). We completed the analyses with the help of SmartPLS program package¹.

¹ Ringle, C.M. - Wende, S. - Will, S. 2005. SmartPLS 2.0 (M3) Beta, Hamburg, <http://www.smartpls.de> downloaded 10.12.2011.

THE RESULTS OF THE QUALITATIVE RESEARCH

First of all we can say in general that the older the relationship between the partners is, the more they are willing to consider loyalty in positive terms. Next, we outline the opinions about loyalty and the dimensions of loyalty.

Does loyalty exist in B2B relationships?

With regard to the concept that loyalty divides organizations in partner markets, we also wanted to know whether loyalty exists – and what it means – in B2B markets according to respondents. We have mentioned that the category of loyalty itself is difficult for organizations to define, they can interpret it only along certain dimensions, which is also reflected in the responses.

Based on the opinion of those we asked, we can state that the majority think that loyalty is present in organizational markets as well. Although we occasionally found responses saying that such behaviour as loyalty is contradictory to the nature of business market. In our survey we found that – although depending on the sectors and organizational characteristics – loyalty is also interpreted in B2B relationships.

“I think loyalty exists. A loyal person is someone who stands by us for years, we can talk over our problems and we do not leave the other in case of trouble...”

“loyal partners fully trust the company, the employees of the company; loyalty is built on trust”.

“For me, loyalty means that I can count on my partner in everything, we set the conclusion of transactions profiting for both of us as an objective.”

“For me, loyalty is a long-term relationship which is based on trust and commitment. If a partner becomes uncertain, enthusiasm shows a decreasing tendency, it saps efficient work. If the extent of loyalty decreases or it disappears, the relationship becomes worthless and uninteresting.”

There are some contact persons, however, who believe that *loyalty has boundaries*:

“If it is about our money, loyalty does not matter. Profit matters for us!” The response: *“It does for you because you are multinational! We are small and we always give a chance to our troubled partners, and it is true vice versa. And it has worked so far.”*

“I want to be loyal or faithful to a supplier partner in vain if the market does not want the product. Then it is difficult, very difficult to remain loyal. We hold on, but only for a short time.”

The above quotations show that loyalty is interpreted by the parties in organizational relationships as well, although they can describe it only with the help of its indicators.

The role of trust

Trust has a substantial role in relationships. During the interviews every respondent, mentioned this factor. Almost all the interviewees named trust as the key to good inter-organizational relationships in the first place. Price, quality and satisfaction were marginalized by this factor during the interviews. The majority believes that trust between the parties matters more than a lower price, and even if there are occasional conflicts about quality in the relationship, or sometimes they are unsatisfied with deadlines, trust can mitigate these anomalies in the long

term. Fairness, honesty and trust are the elements that regularly return during the evaluation of relationships in the interviews.

“In business relationships, trust, cooperation and respect for each other are the most important.”

“I think in B2B relationships, in today’s distrustful world, trust and open communication are what really matter. It is very important for the parties to trust each other, to be able to count on the helpfulness of each other and that the relationship is smooth.”

“In my opinion, trust is the most important factor between business partners. If trust is gone, relationships loosen, and this leads to distrust. And it just does harms to relationships, this is why honesty is important.”

The role of Personal relations

The majority of the respondents put an emphasis on the role of personal relations in B2B markets. Many studies have proved that human relations can often have a crucial role in maintaining and ceasing relationships. We can also find examples in our survey when the contact person’s transfer to another company, and “takes the relationship” with themselves. This phenomenon has examples in the interviews as well.

Nearly all respondents stated that personal relations have a substantial role in developing a good partner relationship.

As we can see above, the respondents can interpret loyalty in inter-organizational relationships, and they mentioned trust, long-term thinking and the significance of personal relations among its most important determinants.

The role of communication and personal relations

The value of personal relations has been increasingly appreciated due to the crisis, and even the organizations that earlier entrusted these tasks to administrator and assistants pay increased attention to maintaining relationships.

“I think loyalty does not depend on the state of crisis. It depends on the person and the company. Just because the world faces a crisis, it does not mean that humanity must be given up or we must change what is good. Of course there are companies that are not loyal but stupid, who really talk about forints and exchange for one forint. This is not good.”

“...ceasing an established relationship is never useful, since a good old relationship can be needed anytime. A good personal relationship is an important factor of cooperation”.

The interviews indicate that all respondents considered good working relationship and good personal relation important before the crisis as well, but they did not put a particular emphasis on the conscious maintenance of relationships. However, this has changed as an effect of the crisis, and the majority of the interviewees started that they now consciously build their relationships.

“we did not keep contact with the management at all in the beginning, it was restricted to the administrators. However, we have felt its importance recently, because actually big decisions are made in the management level. We must do our best to strengthen the relationship...”

“Since the crisis, we have developed a considerably stronger relationship with the partner. I feel that the present situation is continuously uncertain, thus I would like to control the relationship. In such situation, it is always good if we can count on a constant, reliable partner.”

“As an effect of the crisis, the frequency of meetings has changed. We meet almost on a weekly basis. I did not consider it important earlier, but as the market narrows I also feel that a successful enterprise increasingly needs “friends”, rather than business partners. I even pay attention to bringing some presents when I make a visit. A little chocolate, a bottle of wine can make miracles!”

As a consequence, the qualitative research proved that loyalty can also exist in inter-organizational relationships. Our survey calls the attention to the fact that the crisis divides organizations in terms of assessing whether loyalty can be useful in the period of crisis. It has been proved that trust is a very important factor in loyalty and that personal, face-to-face relations have a great role in both trust and loyalty; however, in terms of the question on how the crisis affected the development of loyalty, opinions varied considerably.

The findings of the qualitative research have confirmed us that it is important to analyse the significance of the forms of keeping contact and communication among the companies operating in B2B markets. Especially as information technology serving communicational purposes has undergone a considerable development in the past decades, which we could not neglect in the interpretation and analysis of the phenomenon.

THE RESULTS OF THE QUANTITATIVE RESEARCH

In the course of completing the online questionnaire, we wanted to know how widespread the forms of communication between business partners are and how the method applied in communication influences the factors regularly used in describing business relations: satisfaction, trust and loyalty.

In general we could say that the responding companies can be divided into 3 categories: 63 small enterprises, 13 are medium enterprises and 14 are large companies. Based on the basic activity, 52 companies are active primarily in the organizational market and 38 companies operate primarily in the consumer market.

The respondents include 43 senior managers, 22 lower or medium level manager, while the remaining 25 persons are employees.

Devices of communication

The examination of the toolbox of business contact was a basic objective of our research. For this reason, we asked the respondents to evaluate each Communication/contact form in a five-element scale, how often they apply it in the cooperation with their business partners (suppliers or business customers) (Table 1).

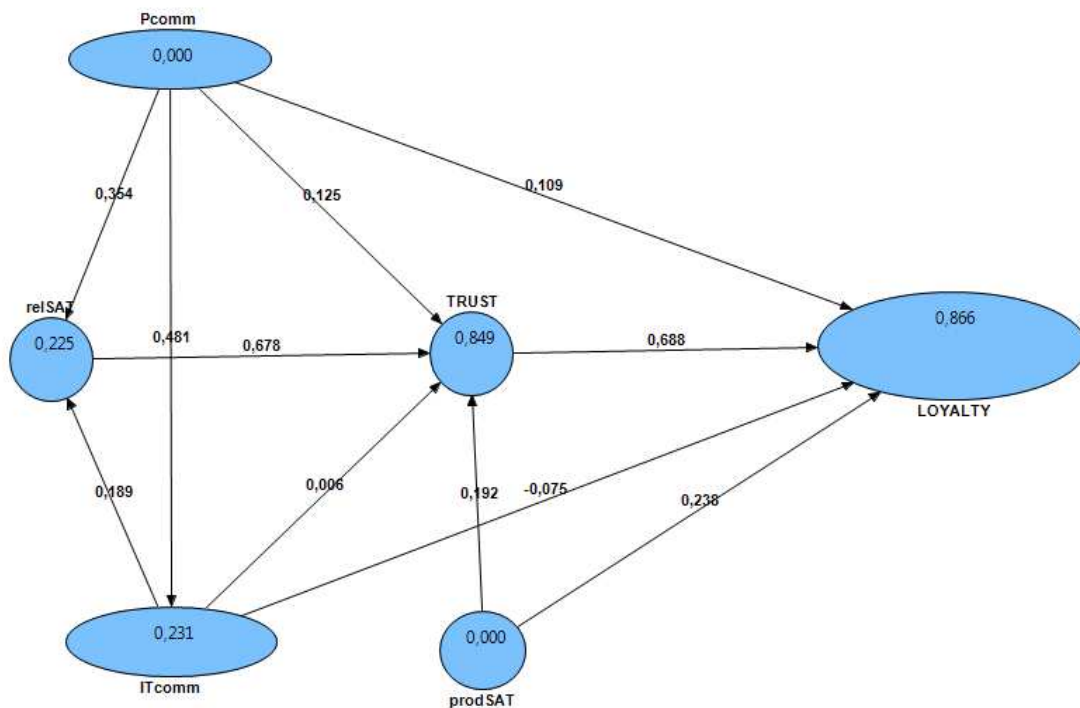
Table 1: Average frequency of the use of communication methods in official contact

	mean
e-mails	4.44
phone discussions, phone calls	4.36
personal, individual meetings	4.0
mailing	3.25
group conferences, meetings	2.74
programs (ceremonies, conferences, product launches, exhibitions, etc.)	2.52
conference calls	1.97
online video and phone discussions (e.g. skype)	1.97
Social media interfaces (e.g. linked in, facebook)	1.87
online video conferences	1.46

Note: the respondents evaluated how often they use the given communication form in the formal contact with business partners in a five-degree scale (1= never, 5=always).

The results illustrate the spreading of IT mediated communication forms well, since the most frequently used methods are e-mail (4.44) and phone contact (4.36) according to the respondents. Nevertheless, the particular significance of personal relations is supported by the fact that the personal, individual meetings (4.0) received the third highest average value. The least often applied forms are successively the phone or online group communication and video interfaces, which most probably follows from the classification of the majority of the sample in the SME category.

Figure 2: The effect of communication methods on loyalty



Based on all this, it is a particularly interesting question how the usage of IT mediated communication methods affect the development of long-term relationships. To analyse this we used SmartPLS software for path modelling with latent variables. This is a structural equation modelling method which is based on the partial least square technique. We studied the relationship between *personal communication* (Pcomm), as well as *IT mediated communication* (ITcomm) and the factors of *relationship satisfaction* (relSAT), *trust*, and *loyalty*. We also integrated *product (service) satisfaction* (prodSAT) in the model, as a factor influencing the extent of trust and loyalty (Figure 2). The respondents evaluated the examined latent variables with the help of indicator scales. We measured the reliability of the scales with the Cronbachs Alpha test. The latent variables are compliant based on the values of the Cronbachs Alpha and the communalities.

As it is illustrated by Table 2, the latent variables included in the research model explain the difference in the values of loyalty in 87 per cent collectively. This value can be considered specifically high.

Table 2: Reliability of the latent variables

latent variables	R Square	Cronbachs Alpha	Communality
Pcomm		0.88	0.48
ITcomm	0.23	0.92	0.62
TRUST	0.85	0.96	0.80
relSAT	0.23	0.97	0.82
LOYALTY	0.87	0.97	0.64
prodSAT		0.95	0.76

Loyalty is closely linked to trust, as well as to relationship and product satisfaction, while it has a mid-strength relation with personal communication (Table 3). We could also show a correlation with IT mediated communication, however, this relation appears to be weaker.

Table 3: Latent Variable Correlations

	Pcomm	TRUST	ITcomm	relSAT	LOYALTY	prodSAT
Pcomm	1.00					
TRUST	0.50	1.00				
ITcomm	0.48	0.38	1.00			
relSAT	0.44	0.91	0.36	1.00		
LOYALTY	0.51	0.92	0.32	0.87	1.00	
prodSAT	0.39	0.86	0.36	0.91	0.85	1.00

For the further, more detailed understanding of the relationship between the latent variables, we completed a path analysis. Through this we tried to map the extent of the direct and indirect effect of applied communication methods on loyalty in relation to each latent variable. While the

direct effects are given by the path coefficients, the total effect, i.e. the resultant of all direct and indirect effects, is given by the values of the total effect table.

The positive coefficients of the values signify positive, i.e. (loyalty) increasing effect, the negative values refer to a decreasing effect.

Table 4 summarizes the effect of the factors presented in the model on loyalty. Trust has the largest (direct) effect on loyalty (0.69). Relationship satisfaction has the second largest total effect (0.47), which we interpret as the resultant of clearly direct effects following from the model. In terms of the total effect level, product satisfaction (0.37) is in the third place in tie, in which case the direct effect (0.24) is twice as strong as the indirect effect (0.13). In the case of personal communication, the direct effect (0.11) is only the third of the indirect effect (0.36).

It is important to emphasize that personal communication has the strongest effect on IT mediated communication, which confirms our assumption that the primary role of IT mediated communication is a kind of support, completing and consummating personal relationships.

Table 4: Total Effects

	TRUST	ITcomm	relSAT	LOYALTY
Pcomm	0.43	0.48	0.44	0.37
TRUST				0.69
ITcomm	0.13		0.19	0.02
relSAT	0.68			0.47
prodSAT	0.19			0.37

IT is not significant in the model in terms of its effect (0.02), however, it is remarkable that it has a more negative effect on loyalty, a neutral effect on trust, while a weak positive effect on relationship satisfaction in terms of the direct effect (Table 5).

Table 5: Path Coefficients

	TRUST	ITcomm	relSAT	LOYALTY
Pcomm	0.13	0.48	0.35	0.11
TRUST				0.69
ITcomm	0.01		0.19	-0.07
relSAT	0.68			
prodSAT	0.19			0.24

SUMMARY, CONCLUSIONS

The economic crisis that has been on for four years by now, served as an important aspect of our research. The results of the interviews show that managers believe that long term, safe relationships are more important in these turbulent times than they were before. Loyalty is of more importance nowadays.

The results of our survey however indicate that new IT solutions bring important changes in handling business relationships. Besides face-to-face interactions e-mail and telecommunication tools are used most frequently as a communication method in business relationships.

Thus the results of our empirical research indicate two seemingly contradictory but in everyday practice existent forms of communication. On the one hand, the advantages of information technology do not leave inter-organizational communication untouched, moreover, according to the data of the quantitative research, the role of IT is outstanding in the interaction with customers. The new tendencies cannot do without fast and efficient information exchange, continuous interaction and immediate response. At the same time, we cannot disregard the results of the qualitative in-depth interview research and the path analysis applied in the quantitative analysis, which indicate that personal meetings, personal contact may intensify the development of loyalty. An important finding of our research is that this effect can be achieved through strengthening trust, thus it still holds for personal relations which can be the key determinants of a long-term relationship.

Based on the results of our research, we believe that the perceived quality of inter-organizational relationships is affected by both communication techniques: it is necessary to accept and use IT, but it cannot replace the milieu of face-to-face meetings. It seems that IT and personal meetings together serve the efficiency of relationships in inter-organizational relationships. Our results support Hakansson's (1982) view, that market actors use both impersonal and personal communication methods for information exchange. But the fast development of the information technology may result in the usage of impersonal communication methods (e.g. IT tools) to convey 'soft data' between the interacting participants.

This study contributes to the relationship marketing literature by providing insights into how managers of a turbulent environment perceive the importance of personal and impersonal or IT mediated communication methods. The findings add to the body of knowledge on loyalty in business relationships. The results show that during inter-organizational relationships both ways of interaction can be effective, and they jointly play important part in building loyalty and they both add to the parties' valuation of the relationship.

Having the currently available data – due to their eclectic character – in the future we will do further research to explore whether the collective effect of the two forms of communication result in quality change in B2B relations or one wins from the two techniques.

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