

COMPARATIVE ANALYSIS OF BARRIERS TO KNOWLEDGE SHARING FOR POLISH AND UK CONSUMERS

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Abstract: Consumers' knowledge is increasingly becoming an integral and important element in business strategy regardless of the country. A major challenge for enterprises involves removing potential barriers which may hinder consumer knowledge sharing. The purpose of the paper is to identify those barriers. The reported outcomes are the result of a questionnaire survey that yielded responses from 783 Polish and 171 UK-based consumers. The results indicate that the main barriers to consumer knowledge sharing include lack of time, lack of information about opportunities to share knowledge, and lack of interest in sharing knowledge for Polish consumers whilst for UK consumers the most important barriers are reluctance to sharing knowledge and reluctance to give private information. What is more, the principal difference between countries pertains to actual reluctance to sharing knowledge indicating that UK consumers are by far more reluctant than Polish ones.

Key words: consumer, knowledge sharing, enterprise, barriers, Poland, UK

DOI: 10.17512/pjms.2018.18.2.06

Article history:

Received July 20, 2018; Revised July 28, 2018; Accepted September 11, 2018

Introduction

Euroregions Business coping with new challenges presented by the knowledge economy should recognise that knowledge is a strategic resource and simultaneously the basis of competition and survival in competitive environments (Liebowitz, 2016; Ziemba and Mullins, 2016). Moreover, customers' knowledge takes on greater significance in light of these challenges (Ahmad, 2016; Masa'deh et al., 2016; Trejo et al., 2016). Customers have become active knowledge partners (Gibbert et al., 2002). According to Smith's and Farquhar's research (2000), customer knowledge is considered the most important type of knowledge for the effective operation of enterprises. It mainly becomes an essential intangible asset for every line of business, leads to a better response to and respect toward consumers (Aghamirian et al., 2013; Reitz, 2012), makes a contribution toward new and innovative products (Brabham, 2012; Jurgenson and Ritzer, 2009; Trejo et al., 2016), and evaluates and responds to new market opportunities before competitors (Gibbert et al., 2002). Consumer knowledge is, therefore, of great value to both enterprises and consumers (Yuan et al., 2016). Consequently,

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knowledge sharing is a powerful process that allows customers to collaborate with enterprises and in turn contributes to new products development (Bilgihan et al., 2016). Consumers who share knowledge with enterprises are known as prosumers (Fine et al., 2017; Hernández-Serrano et al., 2017; Ritzer and Jurgenson, 2010).

Enterprises expect that through engaging consumers in knowledge sharing they can create new, innovative products and further develop the existing ones, consistent with consumers' ideas. At the same time, they expect that the access to consumers' knowledge would enable them to follow consumers' needs in a quick and direct way (Aghamirian et al., 2013; Croteau and Li, 2003). However, consumers rarely share their knowledge with enterprises (Ziemba et al., 2018). Thus, understanding reasons for which consumers do not share their knowledge with enterprises is important as many enterprises want to effectively exploit that resource. The literature studies show that the barriers to knowledge sharing between employees have received growing attention in recent years (Cleveland and Ellis, 2015; Hong et al., 2011; Riege, 2005; Taghipour et al., 2016), whilst the subject of barriers and obstacles to share consumer knowledge has not been explored widely in the literature. There is currently a gap in understanding why consumers do not share their knowledge with enterprises. Therefore, conducting an empirical research study among consumers analyze the reasons for why consumers do not share their knowledge with enterprises may help fill in the gap in the existing body of knowledge. Thus, this paper aims to identify barriers for knowledge sharing with enterprises as well as analysing that barriers for Polish and UK-based consumers.

The paper is organized as follows: the research questions and hypotheses followed by the research methodology; then results, analysis, and discussion are provided; and the paper concludes with a summary, limitations, and avenues for future research.

Literature Review

Consumer Knowledge Sharing Barriers

There are various studies in the knowledge management literature that examine knowledge sharing barriers in enterprises. As an example, Riege (2005) discussed over three dozen potential knowledge sharing barriers in SMEs and large companies, categorising them into three main domains: individual/personal, organisational, and technological barriers. The personal barriers identified can refer to consumer knowledge sharing, e.g. a lack of time to share knowledge, low awareness of the value and benefits of sharing knowledge, a lack of trust in people because they may misuse knowledge, poor communication, and differences in experience levels. Organizational barriers embrace a lack of transparent rewards that would motivate people to share more of their knowledge, a lack of leadership in knowledge sharing practices, and a lack of physical environment that would facilitate effective sharing practices. In addition the author considered technological barriers such as, a lack of technical support and reluctance to use a technological environment.

Kukko (2013) explored knowledge sharing barriers in a high-technology field such as the software business. She pointed out that a lack of proper technological and organizational space in which to share knowledge can become an issue. Some authors stress that incentives and rewards affects significantly knowledge sharing (Cheng et al., 2009; Chouikha, 2016; Gafni et al., 2014; Ho and Kuo, 2013). According to them, an incentive system and a personal expectation are two significant factors associated with a passion for sharing knowledge. The results of Hong et al. (2011) indicate that motivation and internal resistance exhibit a high relative importance to overcome barriers to knowledge sharing. Following the comprehensive review of 103 studies, Cleveland and Ellis (2015) identified knowledge sharing barriers and suggested that technology alone is not capable of eliminating these barriers. According to them, the most important barriers to sharing knowledge include a lack of time, poor communications skills, and a lack of trust. Among other important impediments to knowledge sharing are: poor understanding of the benefits to be derived from knowledge sharing; the incompatibility of knowledge sharing activities with current job requirements; and a lack of training on using the knowledge sharing system. Furthermore, based on Guan's et al. (2018) study, it can be assumed that customer expertise and experience tends to positively influence customer knowledge sharing.

Conceptual Framework of Consumer Knowledge Sharing Barriers

Based on the existing literature that suggested broad ranging barriers for sharing knowledge within enterprises, we proposed a conceptual framework of barriers for consumer knowledge sharing. Table 1 presents this framework and summarizes the identified knowledge sharing barriers.

Table 1. The conceptual framework of consumer knowledge sharing barriers

Barrier's abbreviation	Barrier
L_time	Lack of time
L_info	Lack of information about opportunities to share knowledge
L_inte	Lack of interest in sharing knowledge (at all)
In_needs	Incompatibility of knowledge sharing with current consumer's needs
L_know	Lack of required knowledge for sharing with an enterprise
L_skill	Lack of required technological skills
L_help	Lack of enterprises' help or support
L_rewa	Lack of rewards (at all)
L_int_rewa	Lack of interesting rewards
Rel_shar	Reluctance to sharing knowledge
Rel_enga	Reluctance to engage with a specific enterprise
L_envi	Lack of physical (technological) environment for knowledge sharing
Rel_priv	Reluctance to give private information
Bad_expi	Bad experience with sharing knowledge

Research Methodology

Research Questions and Hypothesis

The main purpose of this paper is to answer the question: *What are the reasons why consumers do not share their knowledge with enterprises?* To meet this purpose the study focuses on addressing the following specific questions:

Q1: What are the barriers for Polish consumers to sharing their knowledge with enterprises?

Q2: What are the barriers for UK-based consumers to sharing their knowledge with enterprises?

Q3: Are there any statistically significant differences in particular barriers to knowledge sharing with enterprises for Polish and UK-based consumers?

To generate findings on this question, a hypothesis was developed:

H1: *There are statistically significant differences in barriers to knowledge sharing with enterprises for Polish and UK-based consumers.*

Research Process

1. A critical review of existing studies. The review embraces four bibliographic databases: Ebsco, ProQuest, Emerald Management, and ISI Web of Knowledge.
2. An initial pilot survey questionnaire was designed. The questionnaire contained a question concerning specified barriers to share their knowledge: What are the reasons or barriers that you do not share your knowledge with enterprises? For each listed barrier the respondents could choose one of five responses, according to a 5-point Likert scale: (1) definitely no, (2) rather no, (3) neither yes nor no, (4) rather yes, (5) definitely yes. In November 2014 the pilot survey was conducted in Poland leading to a substantive and methodological scrutiny of the questionnaire responses. To conduct reliability analysis, Cronbach's coefficient alpha was used. For all analyzed items the Cronbach's alpha was 0.881.
3. The survey questionnaire was uploaded to the website. Data collection took place between December 2014 and March 2015 in Poland and between February and April 2016 in the United Kingdom. The samples comprising people of different age, gender, and ICT skills. After screening the responses and excluding outliers, there was a final research sample of 783 usable, correct and complete questionnaires from Poland and 171 from the United Kingdom.
4. The data were stored in Microsoft Excel format. Using Microsoft Excel and Statistica package, the collected data were analyzed as follows:
 - To generate findings on the first (Q1) and the second (Q2) research questions the descriptive statistics such as mean, median, mode and standard deviation were employed; and
 - To generate findings on the third research question (Q3) the hypothesis (H1) was developed. The Mann-Whitney U-Test was used to determine whether this hypothesis was supported by our empirical data. The test is appropriate for analysing differences between independent samples. Moreover, these tests do

not make any assumptions related to the distribution (the distribution was checked using Shapiro-Wilk test for $p=0.05$). Additionally, to show the differences between Polish and UK-based consumers we used frequency procedures.

Research Findings

The Reasons those Polish and UK-based Consumers do not Share Knowledge with Enterprises

As the answer to the first (Q1) and the second (Q2) research questions the descriptive data analysis results are presented in Table 2.

Table 2. Descriptive statistics for reasons due to which consumers do not share their knowledge

	Polish consumers				UK-based consumers			
	Mean	Median	Mode	SD	Mean	Median	Mode	SD
L_time	3.66	4	4	1.13	3.35	4	2	1.23
L_info	3.79	4	4	0.99	3.38	4	4	1.18
L_inte	3.66	4	4	1.00	3.44	4	4	1.19
In_needs	3.30	3	3	0.96	3.39	4	4	1.18
L_know	3.11	3	3	1.01	2.74	2	2	1.09
L_skill	2.32	2	2	1.05	2.12	2	2	0.90
L_help	3.02	3	3	1.01	2.55	2	2	0.93
L_rewa	2.60	2	2	1.18	3.02	3	2	1.06
L_int_rewa	2.64	3	3	1.00	3.41	4	4	1.06
Rel_shar	2.22	2	2	0.97	3.64	4	4	1.26
Rel_enga	2.21	2	2	0.89	3.19	3	2	1.21
L_envi	2.74	3	3	0.92	2.64	2	2	0.96
Rel_priv	3.51	4	4	1.22	3.80	4	5	1.17
Bad_expi	2.06	2	2	1.00	2.89	2	2	1.40

SD – standard deviation

The results presented in Table 2 show that for Polish consumers the most important barriers are: Lack of information about opportunities to share knowledge (mean=3.79; median=4; and mode=4); Lack of time, and Lack of interest in sharing knowledge (both reasons have the same statistics' values: mean=3.66; median=4; and mode=4). Whilst for UK-based consumers the most important are: Reluctance to give private information (mean=3.80; median=4; and mode=5), and Reluctance to sharing knowledge (mean=3.64; median=4; and mode=4). What is more, the biggest difference pertains to Reluctance to sharing knowledge as well, indicating that for UK-based consumers that could be the greater barrier to share knowledge. The mean value for UK-based consumers is 3.64 whilst for Polish ones is 2.22.

Differences between Polish and UK-based Consumers as to the Reasons that they do not Share Knowledge with Enterprises

To test the hypothesis, H1 as a response to the research question Q3, the Mann-Whitney U test was used to analyse the Polish and UK-based consumer's comparison data. The test results presented in Table 3 show that the p-value is lower than 0.05 in several cases. It means that there were significant differences between Polish and UK-based consumers. Interestingly, in only four cases the test did not show any significant differences, i.e.: Lack of interest in sharing knowledge, Incompatibility of knowledge sharing with current consumer's needs, Lack of required technological skills, and Lack of physical (technological) environment for knowledge sharing. Thus, hypothesis H1 is partially supported in our study.

Table 3. The Mann-Whitney U test results for Polish and UK-based consumers as to the reasons that they do not share knowledge

	Z	p-value		Z	p-value
L_time	2.06	0.04	L_rewa	-3.12	<0.05
L_info	2.67	0.01	L_int_rewa	-5.96	<0.05
L_inte	1.37	0.17	Rel_shar	-8.73	<0.05
In_needs	-0.98	0.33	Rel_enga	-6.55	<0.05
L_know	3.44	0.00	L_envi	1.47	0.14
L_skill	1.69	0.09	Rel_priv	-2.07	0.04
L_help	4.19	<0.05	Bad_expi	-4.91	<0.05

The Mann-Whitney U test shows that there were significant differences between Polish and UK-based consumers as to the reasons that they do not share knowledge. The analysis was undertaken to present a complete picture of that phenomena and elaborated using frequency data analysis. The results are presented in Figure 1. They embrace only the consumers who indicated 4 (rather yes) or 5 (definitely yes) in the questionnaire. It means that they reasonably or definitely do not share knowledge for a particular reason. For both – Polish and UK-based consumers the most important reasons are Lack of information about opportunities to share knowledge (indicated by 71% of Polish and 60.6% of UK-based consumers), Lack of time (indicated by 63.6% of Polish and 55.3% of UK-based consumers), and Reluctance to give private information (indicated by 57.5% of Polish and 69.1% of UK-based consumers). Further, , our study shows that there are many reasons that UK-based consumers do not share knowledge compared with Polish ones. For UK-based consumers significant differences relate to Lack of rewards, Lack of interesting rewards, Reluctance to sharing knowledge, Reluctance to engage with a specific enterprise, Reluctance to give private information, and Bad experience with sharing knowledge. Yet, it is revealing that

the above mentioned reasons were rather less important or even marginally important perceived barriers for Polish consumers.

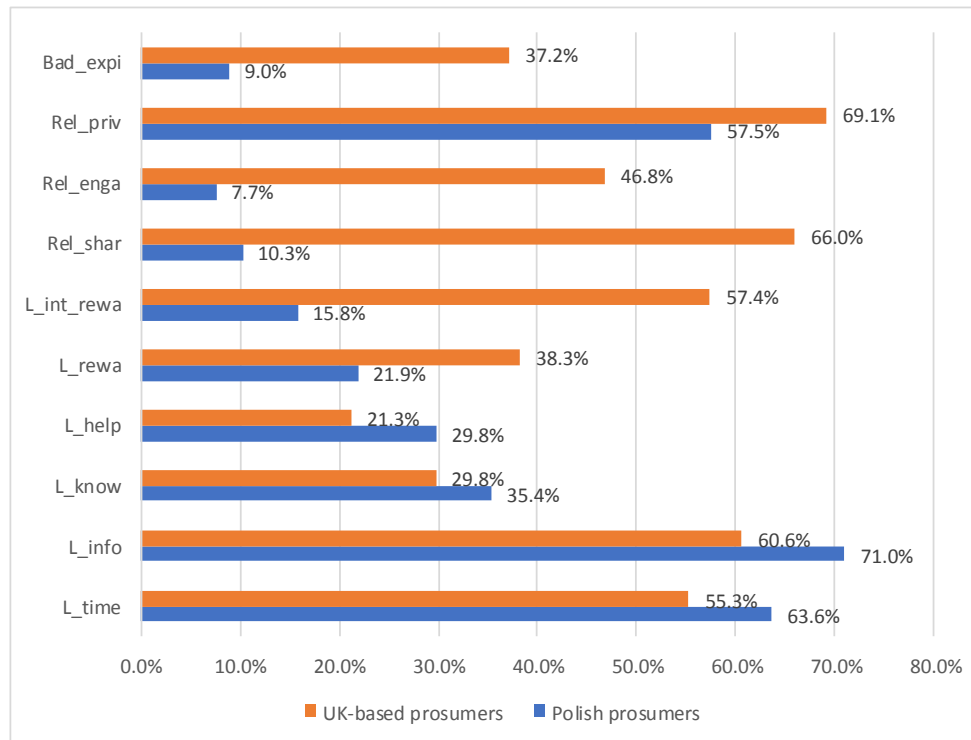


Figure 1. The reasons that Polish and UK-based consumers do not share their knowledge – frequency analysis

Conclusions

Contribution

This study contributes to existing research on consumers, especially consumers' knowledge sharing. It considers those studies where engagement and barriers to consumers knowledge sharing has been reported, yet it is clear there are limited studies that report the extent of the barriers to knowledge sharing with consumers in enterprises or any studies that have made any comparison of these identified barriers across countries. This study is the first one to investigate theoretically and empirically the comparisons between the barriers to knowledge sharing by consumers in Poland and the UK. The results suggest that there are three areas where business can reduce obstacles to knowledge sharing and these include individual, organizational and technological barriers (Riege, 2005). Firstly, the hypothesis was partially supported in this study and identified significant differences between Polish and UK-based consumers as to the reasons that they do not share knowledge. For both the Polish and UK-based consumers the most

important reasons are lack of information about opportunities to share knowledge, lack of time, and reluctance to give private information. Secondly, this study indicates that the most important barriers for Polish consumers are: lack of information about opportunities to share knowledge; lack of time, and lack of interest in sharing knowledge. While for UK-based consumers the most important barriers are reluctance to give private information and reluctance to sharing knowledge. Interestingly, for both countries these are categorized as 'individual/personal' barriers, while they vary in order of priority between the countries the categorization indicates that individual concerns are highly important for engagement with enterprises. Thirdly, the biggest difference between Polish and UK consumers apply to reluctance to sharing knowledge, indicating that for UK-based consumers that could be the greater barrier to sharing knowledge with enterprises. Key findings in terms of cultural differences between the respondents. Fourth, there are many reasons that UK-based consumers do not share knowledge compared with Polish ones. For UK-based consumers significant differences relate to a lack of rewards, lack of interesting rewards, reluctance to sharing knowledge, reluctance to engage with a specific enterprise, reluctance to give private information, and having had bad experiences with sharing knowledge with enterprises. Authors have referred to the importance of incentives and rewards (Gafni et al., 2014) and this is particularly noticeable in this study with regards to the UK consumers, yet, it is revealing that these were less important or even marginally important perceived barriers for Polish consumers. Finally, this study has identified a range of barriers and it is feasible from this study that the costs to the consumer are high and one theory that may explain this is reported by Kankanhalli et al. (2005) who point to social exchange theory as an explanation in that 'people behave in ways that maximise their benefits and minimise their costs' so that reducing possible costs to the consumers; i.e. barriers to knowledge sharing, would positively increase their contributions to sharing knowledge.

Limitations

As with many other studies, this study has its limitations. The first one was the selection of the survey respondents. Most of them were young people below 35 years old, and it is advisable to extend the research to consumers in the age range above 35 years. The second limitation was the relatively low number of respondents from United Kingdom in comparison with the number of respondents from Poland. Resulting from the low UK responses and timing of the survey the research will continue in the UK to ensure a higher response rate for deeper analysis.

Future research

This study can be of use for researchers to apply this methodology for similar analyses with different sample groups in Poland, United Kingdom, and other countries; additionally many comparisons between different groups and countries can be made. Their goal could be the analysis of engagement factors as well as

barriers to knowledge sharing combined with cultural expectations of consumers as applied to social exchange theory.

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ANALIZA PORÓWNAWCZA BARIER DZIELENIA SIĘ WIEDZĄ WŚRÓD POLSKICH I BRYTYJSKICH KONSUMENTÓW

Streszczenie: Wiedza konsumentów staje się integralną, jak również niezwykle ważną częścią strategii biznesowej przedsiębiorstwa, niezależnie od kraju. Istotnym wyzwaniem dla biznesu jest przezwyciężenie potencjalnych barier, które mogą utrudniać dzielenie się wiedzą konsumentów. Celem artykułu jest zidentyfikowanie tych barier oraz ich analiza. Aby osiągnąć ten cel, przeprowadzono badanie kwestionariuszowe wśród 783 polskich i 171 brytyjskich konsumentów. Wyniki

wskazują, że główną barierą, aby dzielić się wiedzą, dla polskich konsumentów jest brak czasu, brak informacji o możliwościach dzielenia się wiedzą oraz brak własnego zainteresowania ukierunkowanego na dzielenie się wiedzą. Dla brytyjskich konsumentów najistotniejszymi barierami są niechęć do dzielenia się wiedzą i niechęć do dzielenia się prywatnymi informacjami. Ponadto wyniki badania pokazują, że największa różnica pomiędzy konsumentami z obu krajów dotyczy niechęci do dzielenia się wiedzą, wskazując równocześnie, że brytyjscy konsumenci są o wiele bardziej niechętni, aby dzielić się wiedzą, niż konsumenci z Polski.

Słowa kluczowe: konsumpcja, konsument, dzielenie się wiedzą, przedsiębiorstwo, bariery, Polska, Wielka Brytania

对波兰和英国消费者知识共享障碍的比较分析

摘要:无论国家如何, 消费者的知识正日益成为企业战略中不可或缺的重要因素。企业面临的主要挑战是消除可能阻碍消费者知识共享的潜在障碍。本文的目的是识别这些障碍。报告的结果是问卷调查的结果, 该调查得到了783名波兰人和171名英国消费者的回复。结果表明, 消费者知识共享的主要障碍包括缺乏时间, 缺乏分享知识机会的信息, 以及缺乏对波兰消费者分享知识的兴趣, 而对于英国消费者而言, 最重要的障碍是不愿意分享知识和不情愿提供私人信息。更重要的是, 各国之间的主要区别在于实际上不愿意分享知识, 这表明英国消费者比波兰消费者更不情愿。**关键词:**消费者, 知识共享, 波兰, 英国, 企业, 障碍。