

Difference among Personality Types in Comment-Writing Behaviour

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Abstract: The higher penetration of internet usage in the society makes it more important to understand how and why people are ready to generate information on the net and what the common features are of those who are ready to post comments. Here special focus is on the members of Y generation, who are adults now and get used to use internet on a daily basis. This study tries to find relationship between personality types and frequency of comment-writing activity. According to our hypothesis, among Keirsej's personality types, the intuiting Rationals and Idealists are supposed to write more comments than their Artisan and Guardian counterparts. Social attitude of the respondents is also examined: we would like to know whether the extravert people write more comments or the introvert ones. It is also expected that Rationals show the most positive attitude toward expressing their opinion and they are also ready to express negative opinion in a higher proportion than other temperament types. The analysis of the 992 usable questionnaire of university students supports the hypotheses.

Keywords: eWOM, comment-writing, Keirsej temperament types, MBTI, opinion-expressing attitude

1 Introduction

In the Internet Age people have an easy way to get information almost whenever and on whatever they want. However, people cannot only use this information but can also generate them – especially when they evaluate products and services. There are different platforms to share opinions and post their comments: weblogs, discussion forums, social networking sites, and review and retail websites.

Comparing efficiency of mass media advertisements with classical word of mouth communication, literature found the latter significantly better, as the credibility of the information-source and its personal and non-commercial form makes it more

reliable. However, eWOM¹ shows some significant differences from traditional word of mouth communication. First, the internet communication is not limited in time or space, so eWOM spread can happen in asynchronous mode [5]. Moreover, it is persistent and more accessible than its traditional counterparts [6]. That feature makes it possible to measure it - but not only its quantity. Different sites insist on using specified rating scales beside giving text-based information about the product or service (e.g. booking.com), just to make independent evaluations comparable and make decision-making easier for the consumers.

2 Research background

2.1 Literature review and hypotheses

It is necessary to understand motivations behind comment-posting behaviour, which can also contribute to recognise customer competences in case of product/service development [2] [8]. Henning-Thurau et al. (2004) found that (1) focus-related utility (helping others), (2) consumption utility (post-purchase advice-seeking) (3) approval utility (self-enhancement and economic rewards), (4) moderator-related utility (problem-solving support) and (5) homeostase utility (expressing positive emotions and venting negative feelings) are in the background of positive eWOM [5].

Cheung and Lee (2012) designed a research model to understand factors influencing consumers' eWOM intention (precisely: intention to spread positive eWOM). Their study found support for their hypothesis which highlighted the relationship between reputation, sense of belonging and enjoyment of helping and eWOM intention. However they could not accept the role of reciprocity, moral obligation and knowledge self-efficacy as antecedents of eWOM intention.[1]

Ridings et al (2006) also wanted to understand motivations behind posting behaviour by comparing attitudes of active and infrequent posters and lurkers ("virtual community members who visit and use the community but who do not post messages" p. 330) They included trust in others' abilities, trust in others' benevolence, trust in others' integrity and desire to participate in the exchange of information/social support/shopping information as variables which should differ among the free behavioural groups. Lurkers "are different qualitatively not only in a gradual quantitative way, but also in their desire for more social distance, less

¹ eWOM: electronic Word of Mouth refers to any statement consumers share via internet about a product, service, brand or company. WOM (Word of Mouth) communication is oral communication which passes information from person to person.

social bonding and their reluctance to rely on information provided by others” p.343. Lurker showed significantly less trust in others’ benevolence and integrity than infrequent or frequent posters. [12]

The above mentioned results show that different personality traits influence motivation of posting behaviour. Therefore in this study the relationship between personality/temperament and comment-writing behaviour is in the focus.

Based on Jung theory, personality can be described by mental functions (information gathering/perception and based on these information-decision making process) and by energizing attitude: how people “charge their batteries”. Briggs-Myers (1980) added the fourth dimension: the lifestyle preference to the former ones – that is how the MBTI can identify personality types. [17] [11] Table 1 shows the main features of the four personality types.

According to David Keirsey’s view, his typology is not completely similar to the Myers-Briggs Type Indicator- although they definitely show parallelism. For example he explains that extravert-introvert dichotomy should reflect to social address and social attitude instead of how people energizing themselves [7].

	Rationals	Guardians	Idealists	Artisans
Common preferences	Abstract Utilitarians Intuiting + Thinking (NT)	Concrete Cooperators Sensing + Judging (SJ)	Abstract Cooperators Intuiting + Feeling (NF)	Concrete Utilitarians Sensing + Perceiving (SP)
Typical features	pragmatic, focus on problem-solving, independent, strategic leader	dependable, hard-working, responsible parents, seek security	enthusiastic, kind-hearted, spiritual, trust their intuition	optimistic, creative, prize freedom, love working with their hands, live for today
Proportion in the population	5-10%	40-45%	15-20%	30-35%

Table 1
Main features of personality types by Keirsey
Source: <http://www.keirsey.com/4temps>, own construction

Probably information taking preference can influence most the comment-generating behaviour of personality types. In Keirsey’s method the two dimensions used for identifying the four personality types are (1) communication and (2) action. [7]

Communication can be concrete (facts and figures are in the centre) or abstract (beliefs, theories and understanding in the centre), while actions can be utilitarian

(good for themselves) or cooperative (meet the rules, what is correct). Web makes it possible to gather different kinds of information easily. For example before making a purchase decision, we can visit different sites to gather information on product variety, prices, objective product features, and we can also check the product reviews of former consumers. Although one of the main intention of the operators of these sites is to transform these reviews into a more formal, comparable form – via using scales for the evaluation, these evaluations are still personal and subjective. Therefore comments can be viewed mainly as abstract way of communication.

Moreover, the previous results from this study [9] - focusing on comment reading behaviour only - showed that Rationals and Idealists read significantly more public comments than the other two personality types. Therefore the first hypothesis is the following:

H1: Rationals and Idealists generate more comments than Artisans and Guardians.

Using Internet may also seem to be a modern form of communication – mainly via e-mail and social network sites. Taking into consideration the other dimensions of the personality, extroversion/introversion dichotomy may have a definite connection to comment writing activity. Extravert people are those who like talk to others, who are open to meet new people; they are interested in others and concerned with external reality. Supposedly, they are more active in virtual life as well than their introvert counterparts, so it is expected they generate significantly more comments than introvert people.

However, we can find extrovert people in each bigger personality types (e.g. ENTJ and ENTP among Rationals), it is worth to examine our sample through this dimension. Therefore our second hypothesis is, that:

H2: Extravert people write more comments online than Introvert people.

However, that can be seen as a threat for marketing managers because Extraverts typically speak before think, and if their comment is negative on the product or service that is a real threat. So, it is worth examining the proportion of positive and negative comments of different personality types and attributes.

Via Internet, users are relatively free to choose the contents they want to get, so probably they spend their time on sites which are interesting for them. Moreover, as people use forums, online chatrooms and comment-writing activity also for meeting new people and for building and cultivating relationships, it is expected that majority of comments are positive.

Yun and Park (2011) examined selective message posting behaviour if the opinion of the poster is a minority opinion. They found that people's perceptions about their position as being in the majority or the minority in the cyberspace influenced their willingness to speak out measured by the message posting behaviour: if their

opinion was a minority opinion, they posted a message less likely. [15] They also wanted to highlight the role of anonymity when they supposed that people would be less likely to speak out on an online forum when they have to register before posting a message. However, they found not support for this hypothesis. It is also important to mention that anonymity can lead to absurd or false behaviour, which should be taken into consideration at the analysis of product evaluations [8].

Based on the structure used by Keirsej typology, only Rationals are defined alongside Thinking aspect – this temperament type concentrates more on facts and figures when making a decision – combining it with intuitions. And for them it is associated with strong will and independence so they feel less pressure for assimilation in their opinion. That is why here it is hypothesised that this group of people is more ready to express relatively higher proportion of negative opinions in their comments.

H3: Rationals generate more negative comments than other personality types.

The aim of this study was not only testing the amount and valence of comment writing, but partly it wanted to understand the reason behind the differences of these numbers. It is supposed that besides of infrastructural conditions of comment writing activity (such as internet access and penetration of notebooks and smart-phones), differences in opinion-expressing attitude may play a significant role in comment writing. There are people who feel expressing their opinion difficult and some people don't want to share their opinion at all – especially not with unknown people in the cyberspace. On the other hand, expressing opinion sometimes means confrontation with others, and representing the opinion of minority may lead to the rejection of the majority. Hypotheses 4 partly relies on the background what was mentioned for H3.

H4: Rationals show more positive attitude toward expressing their opinion than other personality types.

2.2 The questionnaire

For analysing comment writing activity of Y generation, a pen-and-paper questionnaire has been designed. University students were asked in their classes to fill in the questionnaires.

In the first part of the questionnaire, comment writing activity was in the focus. To improve reliability of the study, comment writing activity was measured on two ways. First, the respondent had to evoke how many comments (s)he wrote previous week on different sites (social network, news portals, forums, video sharing sites and so on). This question helps to detect the pattern of comment writing activity on the internet and perhaps is not difficult to bring a memory into the mind if interval is so short. Beside the former question, respondent had to give

the average number of comments (s)he wrote usually in a month. That was a great chance to control the reliability of the numbers given for the former question and also helped us to handle if there was an outstanding event or personal circumstance which could generate significantly higher or lower frequency in comment writing behaviour (celebrations, outstanding moments or social events for the young generation which could generate larger amplitude in comment writing).

Valence of comments were measured as an average distribution of the comments written by the respondents: they needed to share 100% among positive, neutral and negative comment types.

The second part of the questionnaire was dedicated to identify the personality of the respondent. Although there are wide variety of different personality tests, for this study, the easiest and shortest test was used – borrowed from a Hungarian homepage: lektanitipusok.hu/tesztek.html. Here respondents have to make only four decisions alongside the four personality attribute-dichotomies described in a few sentences (extravert/introvert, thinking/feeling, judging/perceiving, sensing/intuiting). This relatively short but reliable version of personality tests provided the chance for the respondent not to feel overwhelmed and bored by a longer list of statements – especially because there were other parts of the questionnaire waiting for him/her.

In the third part of the questionnaire, there was a list of 5 statements related to opinion-expressing attitude, and the respondent had to evaluate them on a 7 point Likert-scale, where -3 meant: totally disagree and 3 meant: totally agree with the statement.

2.2 Sample description

Undergraduate and/or graduate student samples have been used in lots of studies examining eWOM [4], [10], [13].

	Rationals	Guardians	Idealists	Artisans
Proportion in the sample	13,7%	46%	16,6%	23,7%
Male/Female proportion	82 / 18 %	72 / 28 %	67 / 33 %	72 / 28 %

Table 2

Personality types in the sample

Source: own calculation, own construction

Our aim was to ask the members of the Y generation, as they are those who were born between 1980-1999, therefore they are young adults now who get used to using internet in their everyday life, and who have experienced the changing ways of contact patterns, and who have new definitions of group membership and social experience in the cyberspace [14]. So university student sample is definitely appropriate for that – even though their level of education will be higher in the near future than for the average population.

However, at the time of the fieldwork they didn't have a degree, only a high-school diploma. According to KSH database, in 2011 58,8% of the 20-24 year old population has graduated in high-school in Hungary, and only 28,0 % of the 25-29 year old population had a bachelor or master degree. [16] That means that education level of our sample is definitely higher than of the Hungarian Y generation population.

After finalizing the questionnaire based on the results of a pilot test, pen-and-paper study has been conducted in February, 2014 at Obuda University, Budapest. Students from faculty of business administration and management, mechanical and safety engineering, electrical engineering, informatics, light industry and environmental protection engineering took part in the survey. After data cleaning process, we have got 992 usable questionnaire. SPSS 19 was used to analyse the database.

Three quarter of our respondents were male (72%), the average age is 23,9 with a standard deviation of 5,3 years.

3 Results

3.1 Quantity of comments written by personality types

Number of comments written on previous week was 8,36 in the total sample – comparing that with the average comments written in a month, which was 25, it seems that the monthly average is lower than what can be expected based on the number of comments previous week. (Expected value would be $4 \times 8,36 = 33,4$).

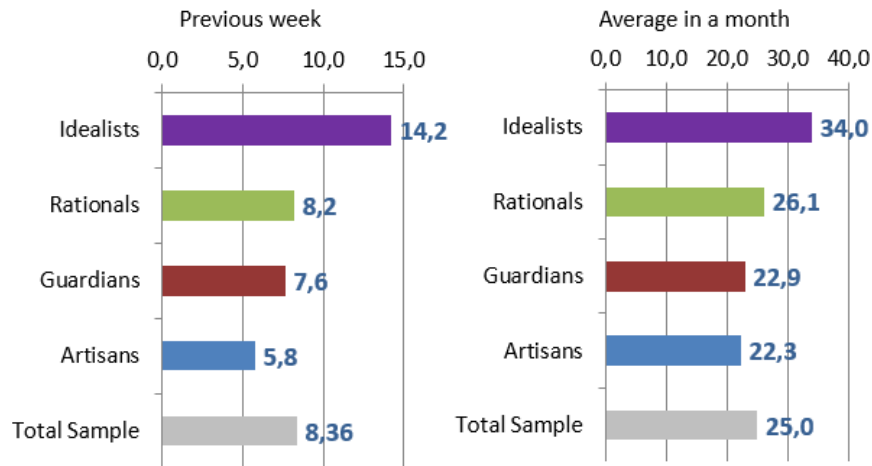


Figure 1

Number of comments by personality types – self-reported data (Total sample N=966, Idealists n=160, Rationals n=132, Guardians n=446, Artisans n=228)

Source: own calculation

Analysing the data carefully, it was found that the abstract category (average in a month) and the rounding behaviour of respondents could be the reason for the difference. For example, 10 comment per month was mentioned by 113 respondents, but 9 or 11 was mentioned only by 4-4 persons. So typical answers were rounded to the nearest multiple of 5 and perhaps they rounded down more than up.

Another potential explanation can be that for some of the respondents Valentine's Day was included in the previous week of the fieldwork. So that can also explain the higher number of comments written previous week than in an average month.

Focusing on the differences among personality types, number of comments previous week is significantly higher for the Idealists ($F(3,962)=4,229$, $p=0,006$). However, no significant difference was found in the average number of comments written in a month ($F(3,962)=2,024$, $p=0,109$). Rounding behaviour may explain also this difference, however the tendency of the number of comments very similar for this question to the previous one – Idealists generate the most comments in a month and Artisans generate the lowest number of comments.

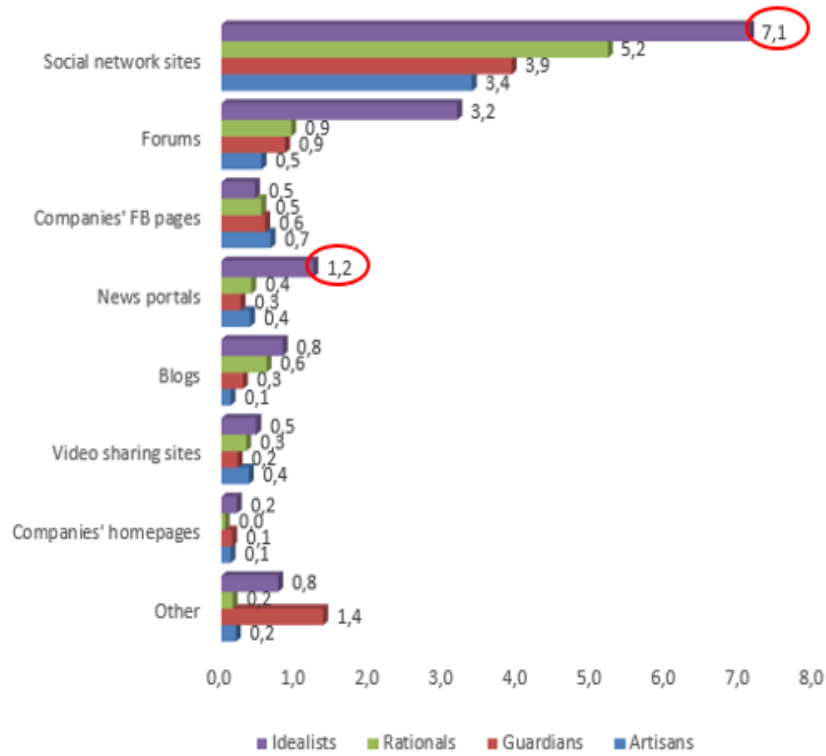


Figure 2

Number of comments on different sites on a given week by personality types – self-reported data (Idealists n=160, Rationals n=132, Guardians n=446, Artisans n=228)

Source: own calculation

Examining closer the sites where students posted their comments, not surprisingly social network sites were the most popular. Idealists posted there 7,1 comments as average which was significantly higher than for the other personality types. This group also wrote an above average 1,2 comments on the given week on news portals. They also wrote slightly more comments on forums, blogs and video-sharing sites than the other personality types.

3.2. Quantity of comments written by personality attributes

Digging deeper in understanding difference in frequency of comment writing, it is worth to examine the four temperament-dimensions used to define personality types.

Testing of the second hypothesis, number of comments written by extravert respondents was significantly higher than for introvert students – with both dependent variables (on previous week: $F(1,972)=5,681$ $p=0,017$; average per month: $F(1,972)=13,934$ $p=0,000$). As it was expected, the more open and socializing the respondents are the more comment they write on the internet.

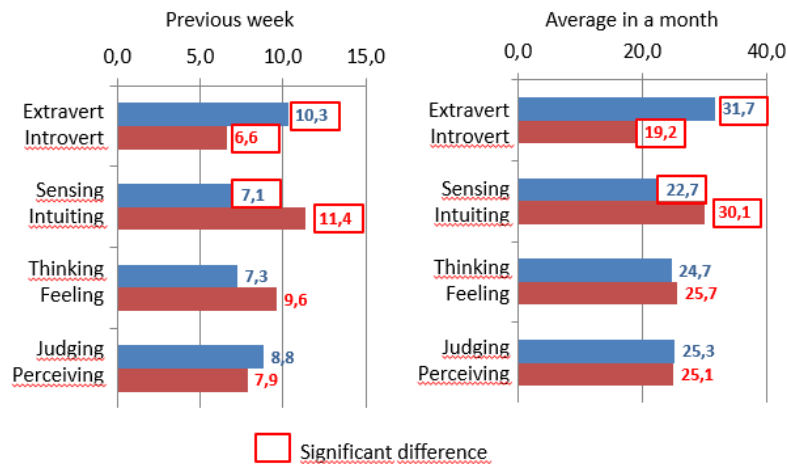


Figure 3

Number of comments by personality attributes – self-reported data (Total sample $N=966$) (red rectangle shows significant difference at $p<0.05$)

Source: own calculation

We could also find significant difference in average number of written comments alongside the perception preference. People, who focus on opportunities, connections and ambiguity in their perception (Intuiting) wrote significantly more comments than their Sensing counterparts on both time-period (previous week: $F(1,971)=6,72$ $p=0,01$; in a month: $F(1,971)=3,993$ $p=0,046$).

In the study, frequency of students' comment-writing activity showed no significant difference in decision making preference and lifestyle preference - despite the slight advantage for people with Feeling preference.

3.3 Valence/polarity of comments written by personality types

In general, the predominance of positive comments is not surprising, as majority of the comments posted on social network sites which are mostly used for keeping/building contacts with friends, therefore mutual positive posts can serve this aim.

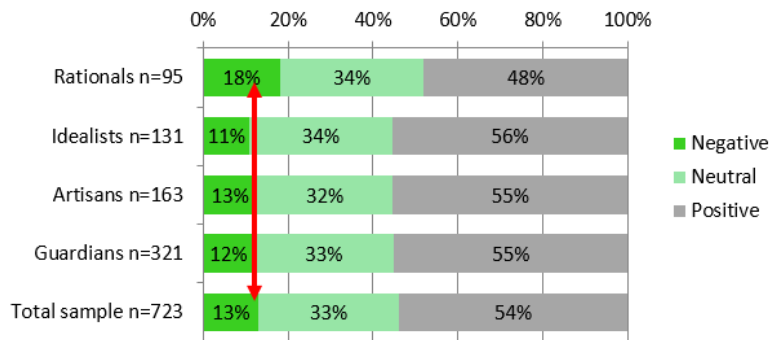


Figure 4

Distribution of valence of comments by personality types – self-reported data (Total sample: those who write at least one comment per month N=723) Red arrow shows significant difference at $p < 0.05$

Source: own calculation

Examining valence of comments by personality types it was found that Rationals posted significantly more negative comments than other personality groups, which confirms H3. If we translate it into a practical issue, marketing managers dealing with eWOM should learn more precisely how to handle negative comments of the Rational type. Deeper understanding of the information-gathering and decision-making features of this personality may give a chance to influence the valence of their comment-writing activity

Analysing the proportion of negative and positive comments by personality attributes, people with extravert preference write significantly more positive comments (57,1%) than the introvert people (50,8 %), but this higher proportion doesn't mean the lower proportion of negative comments, so the proportion of neutral comments were lower for this group.

Valence of comments also shows significant difference alongside decision-making preference dichotomy. Those who concentrate more on their feelings when making a decision, write positive comments in 58,3 % and this higher proportion is also associated with the significantly lower proportion of negative comments (10,3%).

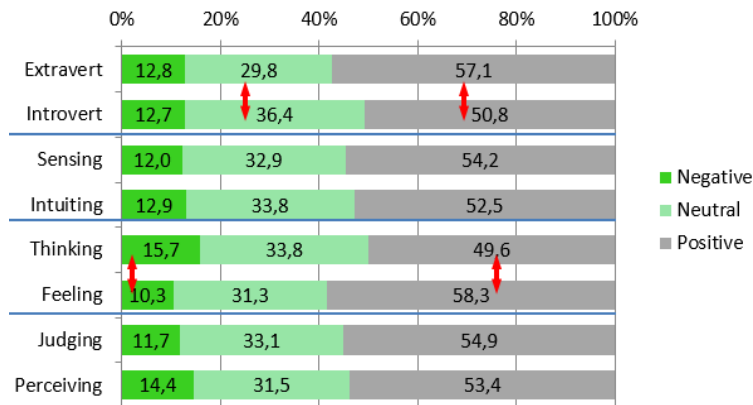


Figure 5

Distribution of valence of comments by personality attributes – self-reported data (Total sample: those who write at least one comment per month N=723) Red arrow shows significant difference at $p < 0.05$

Source: own calculation

3.4 Difference of opinion-expressing attitude among personality types

For understanding the difference in comment-writing behaviour among personality types, opinion-expressing attitude statements has been used in the study. Each personality types prefers verbal communication over written communication and data show slight rejection of sharing opinion with people we don't know. However, one-way ANOVA test shows significant differences alongside the other three statements. As it was expected, Rationals have significantly more positive preference toward debating and Guardians show slight disagreement with this statement, what is also significantly different from the average in the total sample. The caring and helping attitude of this temperament type gives a good explanation for this result.

Rationals' positive attitude toward expressing their opinion is confirmed by the differences in the level of agreement with the two other, negatively formed statements. Rationals want to share their opinion the most and find no difficulty in the articulation of their own opinion.

M. Majláth
Difference among Personality Types in Comment-Writing Behaviour

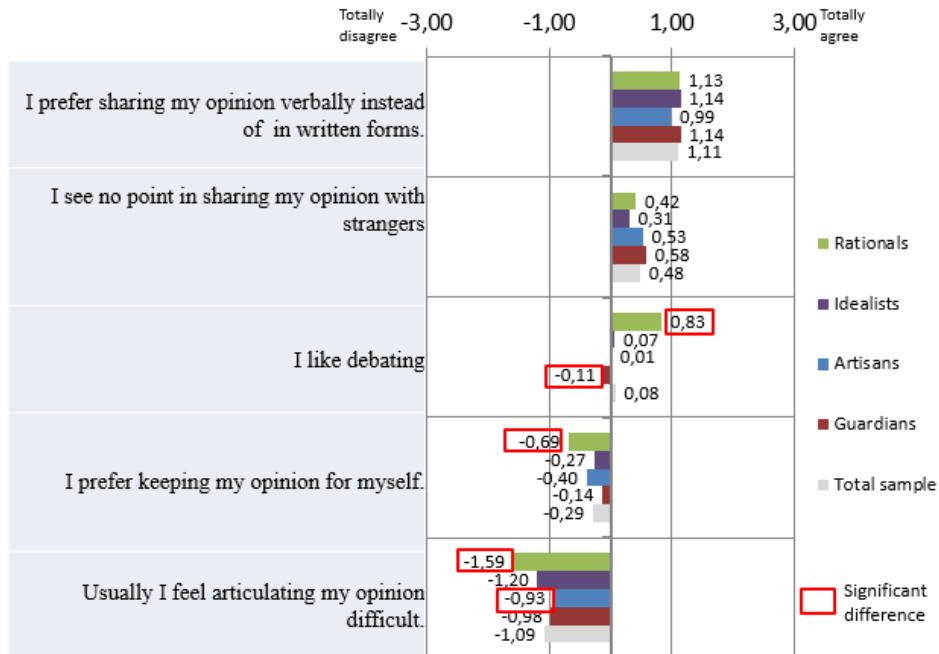


Figure 6
Opinion-expressing attitude by personality types (means) – (Idealists n=160, Rationals n=132, Guardians n=446, Artisans n=228) Red rectangle shows significant difference at p<0.05

Source: own calculation

Although Artisans show slightly (but not significantly) higher intention to share their opinion than the total sample, they feel it relatively difficult how to say that.

For deeper understanding, it is worth to examine the level of agreement with the attitude statements alongside the four dimensions of temperament types. The extravert/introvert dichotomy, which reflects to the way of how a person energize himself (in MBTI) or to the social attitude of the person (in Keirsey’s theory) clearly distinguishes the different opinion-expressing attitude of the respondents. Significance test of mean differences shows that extravert people more ready to share their opinion – even with others they don’t know, and they like debating more than introvert people.

In the MBTI, alongside the decision making dimension, Thinking preference means that impersonal decisions based on logic and principles, while people with Feeling preference focus on human values and needs when making a decision. According to Keirsey, Thinking means that a person is tough minded, while Feeling people are friendly ones [7].

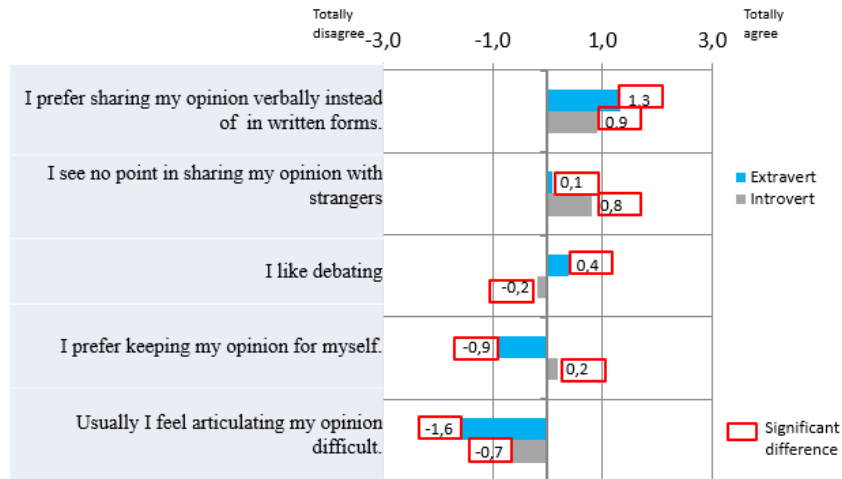


Figure 7

Opinion-expressing attitude of Extravert and Introvert respondents (means – (Extravert n=439, Introvert n=535) Red rectangle shows significant difference at $p < 0.05$

Source: own calculation

Comparison of our respondents answers shows that people with Thinking preference like debating more than those who make decision based on human values and they experience less difficulty in expressing their opinion than people with Feeling preference.

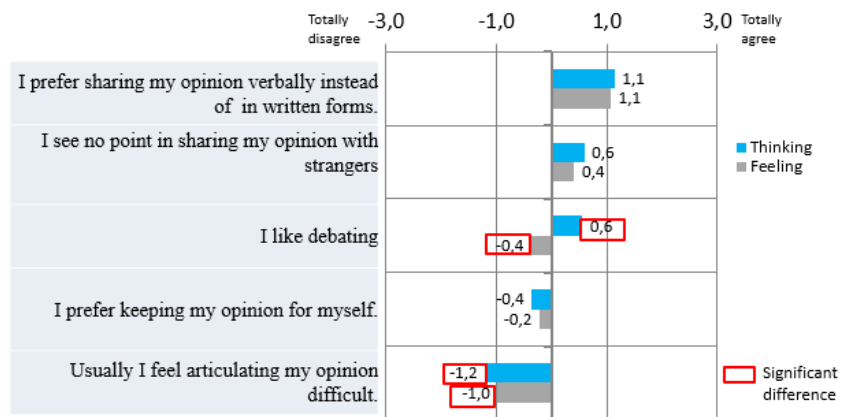


Figure 8

Opinion-expressing attitude of people with Thinking and Feeling preference (means – Thinking n=468, Feeling n=511) Red rectangle shows significant difference at $p < 0.05$

Source: own calculation

Perhaps the latter group considers the potential reactions of the receiver of their communication more, so it is a bigger challenge (because of the higher level of discretion and precaution) to express their opinion in an appropriate form.

Based on day-to-day lifestyle preference, only one statement, the attitude toward debating showed significant difference: Perceiving people slightly more enjoy debating (mean: 0,248) than Judging people (mean: -0,016, $F(1,957)=4,007$, $p<0,05$).

Another finding is that people with Intuiting preference like debating significantly more than their Sensing counterparts (-0,059 vs. 0,4189 $F(1,957)=12,793$ $p<0,05$), and articulating their behaviour means less difficulty for them (-0,9675 vs.-1,365 $F(1,975)=10,503$ $p<0,05$).

Conclusions

Results of this quantitative study underline the meaningful investigation of the relationship between comment-writing activity and personality types and attributes. Number of comments were significantly higher for Idealists than for the other personality groups. Taking into consideration that Idealists are enthusiastic people who trust their intuition, who are spiritual, and making decision based on feelings and values, comment writing (and reading) activity may be a reflection to the perceived world. Instead of facts and figures, they keep an eye on the “personally generated” world. They are more active than others both on social network sites and on news portals.

Data also supports that Rationals, who are broadly pragmatic, focus on problem-solving, independent, strategic leaders have the most positive attitude toward expressing their opinion, and they post the highest relative proportion of negative comments – although positive comments are still dominant.

Social attitude of respondents plays significant role in eWOM activity. The outwardly focused Extravert people show significantly more positive attitude toward sharing their opinion, therefore they post significantly more comments than people with introversion preference, and among these comments, and the positive ones dominate neutral and negative ones more than for the Introverts.

The results above are in line with experiences of social-media researchers. In the American society, more individuals with Extraversion preference reported using Facebook than individuals' preference for introversion and also more with preference for Intuition than for preference for Sensing. In connection with using LinkedIn, preference for Extraversion, Intuition and/or Thinking were detected as more relevant than their opposite in the related dichotomy. [18]

Practical implications of these results dedicated to online marketing managers. To get more realistic feedback on product or service evaluation sites, they have to

find out the way, how to motivate also Introvert people to express their satisfaction. On the other hand, as gathering eWOM information at the pre-purchase stage is more and more common behaviour, negative comments can ruin the reputation of the brand or the firm. Marketing managers may organize more efficient reactions to negative comments on product evaluation sites if they can understand the writer's personality deeper and giving the necessary type of information and the appropriate feedback to the poster.

Some limitations of the research should be considered. First, these data were self-reported, so they can still over- or underestimate the number of comments from one person. It was quite visible that respondents rounded up their answers to any multiple of 5 when the monthly average number of comments was asked, however this phenomenon cannot influence the relative differences among respondent groups.

Proportion of valence of comments also were self-reported, and here social desirability bias may occur. People would like to see themselves as nice persons, so perhaps they overestimate the proportion of positive comments.

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