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Mentor: **prof. dr. Mojca Indihar Štemberger**

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## **Seminar Paper**

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### **INFORMATION SYSTEM MANAGEMENT**

***The Effect of Personality on the  
Decision Making about IT Usage  
Analyzing the IT related decision making  
process of two managers through the lenses  
of Jung's personality theory***

*Student: Sara Jakša*

*Enrollment number: 19524001*

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# Introduction

The economics was the first discipline to introduce the decision making models (Repovš, 2015). And yet, there are models, that could help expand this field outside the discipline, but they are not yet widely debated.

In this seminar paper, I am going to use the Jung's functional typology in order to analyze the IT related decision making processes of the two managers of the small firms.

## 1 Theoretical Concepts

### 1.1 Jung's Theory

Jung (1923) says that we use all of our attitudes. It is only the habitual use of one attitude over the other that describes the type.

Jung (1923) described two general attitude types, that dealt with the direction of the libido: extraversion and introversion. Introversion is oriented to the subject, while the extraversion is oriented to the object. But beside the general attitude, people also have function attitudes: thinking, feeling, sensing and intuiting. All of these function attitude can be both introverted and extroverted.

Table 1: *Jung's Functions*

	Extraverted	Introverted
Thinking	Acting based on objective data and outside rules (Te)	Acting based on the mental model of the world (Ti)
Feeling	Acting to keep the harmony, having opinion shaped by outside cues (Fe)	Acting based on the inner values (Fi)
Sensing	Seeking the strongest sensations (Se)	Seeking the strongest impressions (Si)
Intuition	Seeking the the most numerous new possibilities (Ne)	Seeking the fascinating inner images (Ni)

Source: Sharp, 1987

Jung (1954) suggest that in order to reach out greatest potential, we need to develop our unconsciousness, which means the functions that are not under our conscious control.

## **1.2 MBTI Theory**

Jung's theory has been popularized by two women, Katharine Briggs and Isabel Myers. Katharine was researching the personality types as early as 1913. But it was during the second world war, that the MBTI was created. Isabel wanted to help with the war efforts by matching the workers with the work, so the workers would be more productive and satisfied. MBTI was the end results of this work (CPP, 2003).

MBTI categorizes people based on the four dichotomies (Tieger & Barron-Tieger, 1999):

- Energy management: Extraversion - Introversion (E-I)
- Acquiring information: Sensing - Intuitive (S-N)
- Reaching conclusions: Thinking - Feeling (T-F)
- World organization: Perceiving - Judging (P-J)

## **1.3 MBTI Theory in Decision Making and Technology Research**

MBTI has also been used in both the decision making research, as well as research connected with the information technology.

In the decision making, MBTI has been used to study decisiveness of different temperaments (Hough & Ogilvie, 2005), quality of decision making (Hough & Ogilvie, 2005) and which strategy are they more likely to use (Gallen, 2006).

In the information technology, MBTI has been used to match different types to different IT jobs (Capretz & Ahmed, 2010), the difference in usage of social media (Schaubhut, Weber, & Thompson, 2012), the difference in usage of technology connected to specific task, like buying on Amazon (Ludford & Terveen, 2003) or dealing with the email (Ludford & Terveen, 2003), with researching cohesiveness in the software teams (Karn, Syed-Abdullah, Cowling, & Holcombe, 2007), how likely they are to adopt the extreme programming (Karn et al., 2007) or why most CEOs did not rise from the CIO position (Peppard, 2014).

## **1.4 Validity and Reliability of the MBTI**

Capraro and Capraro (2002) said that reliability of the MBTI depends on different factors, like age, achievement and homogeneity of the sample. On average, most of the dimensions were found to have sufficiently high reliability, with T-F being the only one, where average was just below the normal cut-point. But there were studies where MBTI did not have sufficiently high reliability.

MBTI has also found to have sufficient validity, as factors were correlated with behavior and self-

evaluation. The factors were also separate (Capraro & Capraro, 2002). For this study the most important validity was construct validity, which was found to be sufficient (Thompson & Borrello, 1986).

But there are some problems with the MBTI as well. Some of them are non-comparability between genders because of different weights of the questions and people assuming that MBTI is valid and reliable (Capraro & Capraro, 2002). Pittenger (1993) is one of the people claiming that MBTI lacks sufficient validity. His other objections were non-binomial distribution of the dichotomous variables and being able to be explained with other personality models, like The Big Five. There are also complains of differences between MBTI and Jung’s theory (Capraro & Capraro, 2002; Pittenger, 1993).

## 1.5 Differences Between MBTI and Jung’s Theory

The scientists that are having troubles validating the MBTI theory are usually basing their work on the underlying Jung’s concepts (Garden, 1991).

Garden (1991) claims that Myers and Briggs only took some of the Jung’s ideas about psyche, which leads to different ideas and concepts. The further development had only increased the rift between theories.

Table 2: *Differences between Jung’s and Myers-Briggs Theories*

	Jung’s Theory	Myers-Briggs Theory
Judging vs. Perceiving	based on the dominant function	based on extraverted function
Dealing with the world	all functions	strongest extroverted function
Orientation of the auxiliary function	same as dominant*	opposite than dominant
Number of conscious functions	1*	2
Role of auxiliary function	antagonistic	complementary
Who has a type	differentiate people only	everybody
What indicates a type	habitual use of function	preference, however slight
What does type means	differentiation of functions	preference
Where is balance	between un- and consciousness	in the consciousness

Source: Garden, 1991, \*Some Jungians have different opinion (Beebe, 2005, 2015)

Because of this, Garden (1991) warns to not use MBTI outside of the Jung’s theory.

## 1.6 Neurology Research into Jung’s Theory

Dario Nardi (2011) has looked in the neurological basis of the personality types. He did EEG research on 60 people of different types. He found out different brain activity connected with different Jung’s functions.

There are different brain activities that are connected with different Jung's function. For example, the tennis hop pattern is most frequent with Se types while Christmas tree pattern is most frequent with Ne types (Nardi, 2011).

This can be used as indication, that Jung's function do have biological underpinning.

## **2 Methodology**

The information about their IT related usage was collected with the interview and long-term observations. In the interview I have used the questions: "Tell me about how did you decide to change something or add something to your IT?" I have then used additional questions to clarify their answer.

Their type was acquired in a two different ways. One was through the observation of their action. The other was based on the questionnaire from the Slovenian Employment office website (Zavod Republike Slovenije za Zaposlovanje, n.d.), which was administrated on the beginning of the year 2016.

Based on the above mentioned problems with the MBTI types (Garden, 1991; Pittenger, 1993), I have decided that I am going to use the Jung's function analysis only.

I am going to make an assumption, that the two most frequently used functions are conscious (Beebe, 2005).

## **3 Results**

### **3.1 Ne-Fi (ENFP) Manager**

The first cue for adopting the new technology comes from the outside. For the case of the website, there was a presentation, that presented WordPress as the definitive web building framework. In a case of laptop buying, it was problem she had with the laptop. In case of an accounting program, it was the conversation with her accountant.

She then mostly makes decision based on the recommendation. In case of a website, it was the person presenting, in case of the accounting program it was her accountant, and in the case of the laptop, it was recommendation of her friends.

She did mention that she uses different criteria as well, but did not provide the examples, neither did I observe them in real life. These criteria were people selling it, as she wanted good support, how simple it is to master, price and utility based on her industry and company size.

There was also one incident, where she wanted to change the accounting program, because she figured that she should get 10 other people to use it, and get her version free. She did not follow through with it.

She is using the mixture of already made solutions, outsourcing and internal development, with the already made solutions being most frequent. She also is quite willing to consider buying a new IT solution when she first hears about it.

### **3.2 Ti-Se (ISTP) Manager**

The first cue for adopting a IT related change was usually based on the discovered need of a person. A lot of time it was used as a problem solving tool. For example, he bought a laptop for company's COO, after the conversation, where he mentioned that if he wants to check anything work related at the seaside, he needs to use the computer of other family members. The second was when he noticed the problem with one of the worker's computer, which he was working next to. The third was, when his own computer was taken for repair, he used the COO's computer, but needed a CorelDraw. He was unable to draw plans without it. The fourth was the company website, which came into existence because of his hope, that this will convince people to bother him less by visiting or calling for basic questions.

Usually, only one solution was evaluated, and then either accepted or discarded. His decision were quick. For example, in the CorelDraw example, he took the trial version, and in less than 30 minutes decided that he is not upgrading, as he does not like the new interface. The choosing of the laptops is usually delegated to another worker, once the decision to buy a laptop is reached.

All decision were evaluated with the cost-benefit analysis, but it was not structured, neither was any framework used. It was usually done quickly in the head.

All but one of the IT related acquisitions were already made solutions, the website being the only exception. He is not very likely to think about changing anything related to the IT, but if he starts thinking about it, then the decision about the change is going to be quick.

## **4 Discussion**

### **4.1 Ne-Fi (ENFP) Manager**

When making decisions, she was mostly using introverted feeling (Fi). Based on the outside looking in, the first impression is that she is using extraverted feeling (Fe), as she is collecting different recommendations. But going further inside, it seems more like introverted feeler. The difference between Fi and

Fe is that Fe is interested in other people feeling good, while Fi is interested in themselves feeling good (Nardi, 2013). She asks other people so that she can feel better about the decision and sometimes, when convinced in her right, she is not going to let herself be swayed. Which is not the action that Fe user would take.

But there is a lot of extraverted intuition (Ne) involved as well. She is quite quick to jump on new ideas, which can also be seen in IT related actions. She started and abandoned the advertising through Instagram, Pinterest, Twitter and Snapchat. She started to change her accounting program for at least three times, but never followed through. Her quick jumping is also shown, that she has the variety of different sourcing approaches, from internal development to getting already made solutions.

There was some indication of the extraverted thinking as well (Te). Some of them were reaching conclusions based on the outside system, which in this case would be size of the company, price and industry. But they are not as prominent.

Surprisingly, I have not noticed any usage of introverted sensation (Si). Sharp (1987) claims that inferior function always shows itself at the inappropriate times, as it is usually not expressed because of the predominance of dominant function. So it was surprising that here it was not seen.

## **4.2 Ti-Se (ISTP) Manager**

When making decisions, he is mostly using introverted thinking (Ti). Introverted thinking is really good in clarifying ideas and coming up with solution in a logical way (Sharp, 1987). That is also seen in most of his IT related decision making process, as most of it is done as a problem solving method.

Even when being broadsided by the inferior function, in his case extraverted feeling (Fe), the Ti way of working is still used to generate solution. By being broadsided by the Fe, I mean in the case, when he thought that he could influence people's action with technology, using the website to change people's behavior, the example being using a website to try and lower the interruptions from people.

This is a good indication of the difference between Fe-Ti and Te-Fi pair. Fe-Ti people do things because they make sense, while Te-Fi people do them because they want to do them (Pierce, 2015). In his mental model (Ti), it made sense, that people will not ask him things if they can get the same information more easily, like on the internet (Fe). Even if the inferior Fe made a wrong evaluation in this case, which led to the wrong mental model.

The problems that he ends up solving are usually the result of the great observational skills, which is the strength of extraverted sensing (Se) (Sharp, 1987). That can be seen in noticing the state of his worker's laptop.

### 4.3 Comparison

Table 3: Jung's Typology Comparison

Ti-Se (ISTP)	Ne-Fi(ENFP)
<b>Introverted Thinking (strongly used)</b>	<b>Extraverted Intuition (strongly used)</b>
<i>Extraverted Sensing (partly used)</i>	<b>Introverted Feeling (strongly used)</b>
Introverted Intuition	<i>Extraverted Thinking (partly used)</i>
<i>Extraverted Feeling (partly used)</i>	Introverted Sensing

Source: Me

Based on the model, I could say that in both cases, the dominant function was the one that was exerting the most influence. But, as mostly seen the Ne-Fi case, it were both judging functions that were also exerting the effect. The strongest one was usually under the control of a person, while the weaker one was influencing the decision without them being really aware of it. This confirms the ideas from (Beebe, 2005), who said, that two strongest functions are conscious, which means that they are under the control of the person. The others are not.

### Conclusion

Based on this two cases, I can conclude, that the Jung's theory of personality types can be used in the IT managerial decision making. It seems that people do exhibit different thought and decision making process based on their strongest functions.

I believe that in these cases this tool had shown promise by helping to understand who people make decisions and in order to implement the structure in order to make sure that people take other points of view into consideration. For example, in the Ne-Fi case, there could be a delay implemented. So any idea she comes up with, has to wait at least two week before being implemented. And the idea is only used if she is still excited about it after two weeks.

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