Predicting the Intention to Use Internet – A Comparative Study

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ABSTRACT

This article focuses on an application of the Triandis Model in researching Internet usage and the intention to use Internet. Unlike other TAM-based studies undertaken to date, the Triandis Model offers a sociological account of interaction between the various factors, particularly attitude, intention, and behavior. The technique of Structural Equation Modeling was used to assess the impact those factors have on intention to use the Internet in accordance with the relationships posited by the Triandis Model. The survey was administered to Croatian undergraduate students at and employed individuals. The survey results are compared to the results of a similar survey that was carried out by two universities in Hong Kong.

Keywords*: structural equation modeling (SEM), Triandis Model, Internet usage*

1. INTRODUCTION – PURPOSE AND OBJECTIVE OF THE STUDY

The Questionnaire on Usage and Intention to Use Internet was initiated at University of Zagreb, Faculty of Organization and Informatics (FOI) in the summer of 2003 as part of an international research project. The questionnaire was given to undergraduate and graduate students at FOI, as well as staff in some of the state administration agencies. The responses have not been processed until now, so this article constitutes the first processing and interpretation of the obtained results.

Unlike the majority of similar studies dealing with various attitudes related to the ongoing use of the Internet, this study focused on collecting data on the intention to use the Internet at work. It has been assessed that the availability of such data would be useful in promoting new technologies and would encourage their use. Multiple reasons lie behind such an assessment. Certain sociological and psychological theories purport that the best way to predict behavior is through intention, because it antecedes the actual act. Besides, insight into motivation regarding a particular technology may be of assistance in creating an act in order to find ways to encourage people to use new technologies.

This survey was designed and administered for the first time by Man Kit Chang of the Department of Finance and Decision Sciences at the Hong Kong Baptist University's School of Business and Waiman Cheung of the Department of Decision Sciences and Managerial Economics at the Chinese University in Hong Kong [2]. They administered a total of 320 questionnaires to undergraduate and MBA students at their respective universities. The survey results were based on 255 returned questionnaires and published in the article "Determinants of the Intention to Use Internet/WWW at Work: a Confirmatory Study" by *Information & Management*. The authors explicitly invite others to re-administer the survey on a similar sample (that is, consisting of undergraduate or postgraduate students) so that the results from different countries can be compared and provide confirmation of the general validity of the proposed model.

2. TRIANDIS MODEL OF CHOICE

According to the article's authors [2] most of the studies on Internet usage to date have been based on TAM (*Technology Acceptance Model*). In contrast, the chosen Triandis[1] Model offers a pronouncedly sociological account of interaction between the influential factors, emphasizing the relationship between attitude, intention, and behavior. In this article the authors showed that the extended Triandis Model is better suited than the original model for studying the intention to use Internet. The extended model is shown in **Figure 1**. The model variables are as follows:

1. ***Intention*** to use (specifically – Internet usage) is expressed as a function of the other 6 variables.
2. Expected ***near-term consequences*** – as perceived by the respondent.

[1] The model was named after H. C. Triandis, who first published it in 1980.

3. Expected ***long-term consequences*** - as perceived by the respondent.
4. ***Complexity*** of usage is assumed to affect intention to use directly or indirectly by way of near-term and long-term consequences and affect toward usage. The impact of complexity on affect is modeled assuming that people will be keen to use technology if it becomes simple to use.
5. ***Affect*** – personal affect toward IT usage.
6. ***Social factors*** – they are assumed to affect intention directly and indirectly by way of affect (e.g., senior population may be perceived by its environment as inadaptable to new technologies and thus discouraged from any attempt to use it).
7. ***Facilitating conditions*** of usage – they are assumed to have a direct impact on intention to use.

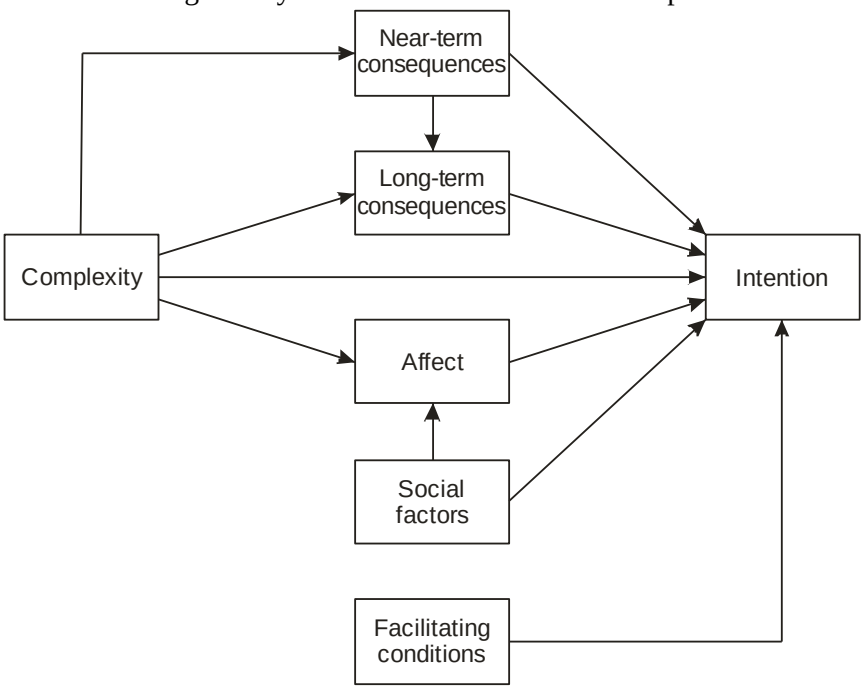

Figure 1: Extended Triandis model used in this study

Survey questions are designed in accordance with the variables of the Triandis Model. They need to be designed in such a way as to allow the respondent to make spontaneous responses. That is why the survey questions are designed so that the respondent can express his/her attitude regarding a particular survey question by circling one of the supplied multiple-choice answers.

To determine the rules of interaction among different factors describing a specific event, it is necessary to process responses from a large number of respondents. The whole study then is carried out in four stages: (1) set up the model that defines the assumed rules (2) formulate appropriate questions for respondents, (3) administer the survey to a sufficiently large number of respondents and (4) confirm (or reject) hypotheses posited by the model using appropriate statistical methods.

3. SURVEY DESIGN

To determine the rule of interactions among the factors, which in the Triandis Model are labeled with letters A-H, the questions are formulated so that statistical analysis of obtained responses points to:

- Intention to use the Internet, which in turn is influenced by the aforementioned factors of the Triandis Model depicted in Figure 2 by letters A, B, C, D, F, and H.
- The level of Internet-usage satisfaction for those already using it.

The principles of survey-based research and survey-question design are described in [5]. The key to preparing a good survey is to pose those questions to respondents to which they can respond, but which also then can be translated into a form that is suited to processing in accordance with chosen statistical methods. The questions are formulated as statement clauses and can be responded to by selecting one of five possible answers: “Strongly disagree”, “Moderately disagree”, “Neither agree

nor disagree", "Mostly agree" or "Strongly agree". For the purpose of processing, each response is assigned numerical value from 1 ("Strongly disagree") to 5 ("Strongly agree").

Dependent variable G describes intention to use the Internet. Intention to use the Internet is assessed using the following two questions:

1. G1 – I intend to use the Internet at work.
2. G2 – I will definitely use the Internet at work.

Independent variables affect intention to use the Internet (variable G). The rules posited by the chosen model can be determined statistically, provided that the opinions on independent factors are known about a larger group of respondents. Therefore it is necessary to design suitable questionnaire that would collect responses on all independent variables. The problem of questionnaire design is that it is difficult to ask of the respondent to assign value to a factor directly. Because of this, it is common to break down the component under consideration into several questions (subfactors), where the value of each response is quantified (e.g., using the Likert Scale). The overall impact of the factor in question is assessed on the basis of each impact of its subfactors. There are 6 independent variables:

Complexity (factor B) is respondent's opinion about the complexity of Internet usage, determined on the basis of the following questions:

1. B1 – Using the Internet is complex, difficult to understand how it works and where it is applicable.
2. B2 – When using the Internet, too much time is wasted on side tasks.
3. B3 – Learning how to use the Internet is too long and it is dubious whether it pays off to adopt it.
4. B4 – Generally speaking, the Internet is too complex to be used on a daily basis.

Expected Near-term Consequences (factor C) are covered by the following questions:

1. C1 – Internet use can reduce the amount of time I need to accomplish my work-related duties.
2. C2 – Internet use can greatly improve the quality of my work.
3. C3 – Internet use can enable me to be more effective when performing complex tasks.
4. C4 – Internet use can enable me to significantly improve my productivity without extra effort.

Expected Long-term Consequences (factor D) are determined by the following questions:

1. D1 - Internet use will increase my chances of getting a job.
2. D2 - Internet use will increase my chances of being promoted to a better job.
3. D3 – Internet use will enable me to become more flexible in the event of changing jobs.
4. D4 – Internet use will increase my job security.

Facilitating Conditions (factor F) are assessed on the basis of the following questions:

1. F1 – The Internet at work is available whenever I need it.
2. F2 – There is a person (or group) at work responsible for providing assistance if problems related to Internet usage arise.
3. F3 – Training on work-related Internet usage is available to me.
4. F4 – Generally, at my place of work strong technical support is available for Internet use.

Social Factors (factor A) that may affect use of the Internet are assessed on the basis of the following questions:

1. A1 – The management thinks that I should use the Internet at work.
2. A2 – My immediate superior thinks that I should use the Internet to carry out my work duties.
3. A3 – My co-workers think that I should use the Internet to perform my work-related duties.
4. A4 – Generally speaking, I would act in line with the course advised by the management.
5. A5 - Generally speaking, I would act in line with the course advised by my immediate superior.
6. A6 - Generally speaking, I would act in line with the course advised by my co-workers.

Affect (factor H) is assessed on the basis of the four pairs of antonyms which respondent associates with Internet use:

Attractive - Repulsive; *Exciting - Tiring*; *Comfortable - Uncomfortable*; *Interesting - Boring*.

The answers to these four questions will be regarded in the processing as one factor marked by letter H. The factor will be assigned numerical value on a scale from 1 to 5 in accordance with the following scheme: if all four associations are negative (i.e. the respondent selects all four words from the right-hand column, i.e. scheme [- - - -]) then factor H is assigned the value of 1. If three words from the right-hand column and one from the left column are selected [+ - - -], then H assumes the

value of 2, in the event of [+ + - -] scheme the value is 3, and for [+ + + -] scheme the value is 4. Finally, if all the associations are positive ([+ + + +]), then factor H will be assigned the value of 5.

Satisfaction with Internet usage is assessed on the basis of the following questions:

1. The time it takes for me to accomplish my most important work-related tasks has been reduced.
2. The quality of my work has improved.
3. Effectiveness in performing certain aspects of some complex tasks has increased.
4. My productivity at work has improved without added effort.
5. My chances of getting a job that I want in future have increased.
6. My chances of being promoted to a better and more sophisticated position have improved.
7. I have become more flexible as regards potential job change in the future.
8. My future job security has improved.

Answers for these questions are: ”excellent”, “quite good”, “nothing special”, “bad” or “very bad”.

General Respondent Data is the third group of questions related to experience with Internet use, respondent's profession, their job description (if employed), age, gender, education and work experience. For the purpose of analysis of the results put forth in this study the only relevant question is the one pertaining to the respondent's employment, namely whether they are employed or students.

4. STRUCTURAL EQUATION MODEL

Structural Equation Model (SEM) is statistical tool that will be used here to research the impact independent factors have on intention to use Internet, in accordance with the relationships assumed by the extended Triandis Model. The process of how to form and use SEM is described in [4]. SEM is used to examine direct and indirect relationships between one or more independent variables and one or more dependent variables. The assumption is that all relationships among the variables are linear.

SEM classifies variables as direct or indirect. Indirect variable is a variable that cannot be measured directly but must be measured on the basis of other related direct variables or on the basis of impact of other indirect variables. In this survey, the elements of the extended Triandis Model described in Chapter 2 constitute indirect variables: complexity, near-term consequences, long-term consequences, social factors, affect, and facilitating conditions. Indirect variables are also known as unobserved variables, **latent** variables or factors. In graphical terms, circles or ellipses represent indirect variables.

Direct variables are variables that can be measured directly. In this research they have been measured by answers to the survey questions. Each set of survey questions affects an indirect variable associated with it. Direct variables are also known as observed variables, **manifest**, or indicator **v**ariables. In graphical terms, rectangles represent direct variables.

The variables can be exogenous or endogenous. **Exogenous** variables are all those variables that affect other variables but are *not affected* by any other variable. **Endogenous** variables *are affected* by at least one other variable. Graphically, the impact is represented as an arrow, so exogenous variables can be detected since all arrows originate out of it and is never targeted by any. Each endogenous variable is the target of at least one arrow. Manifest variables are endogenous, meaning the latent variables by which they are measured affects them. In this model *complexity* is a latent exogenous variable and it affects other latent variables, as well as manifest variables – survey questions related to *social factors*. Since complexity cannot be measured directly, we measure it descriptively by means of questions. Responses to those questions constitute *complexity* as perceived by the respondent.

In addition to the aforementioned types of variables, in SEM there are also residual variables, which are thought to affect both manifest and latent variables. All residual variables are also considered to be latent. Those residual variables that affect manifest variables represent measurement error, while those that affect latent variables represent unreliability or dissipation of measurement results.

Paths among the latent variables in SEM are determined by linear coefficients. The value of those coefficients is calculated using a mathematical statistical method, starting out from the **covariance matrix**. In statistical theory, covariance (Cov) is defined as a numerical measure of coefficient of correlation between two random variables and calculated as predicted value of $(X- \mu_x)*(Y- \mu_y)$:

$$Cov(X,Y) = E\left[\left(X - \mu_X\right) * \left(Y - \mu_Y\right)\right] = E(XY) - \mu_X * \mu_Y \qquad (2)$$

Covariance matrix is a two-dimensional square matrix, with as many rows and columns as there are manifest variables in the researched problem. Covariance values are calculated separately for each pair of manifest variables using the above formula and entered in the fields of that matrix.

In special cases, when finding the model solution through covariance is not possible, an attempt may be made to calculate the model coefficients by way of correlation matrix of manifest variables. This is allowed because the relationship between coefficient of correlation (Corr) and covariance is:

$$Corr(X,Y) = \frac{Cov(X,Y)}{\sigma_X * \sigma_Y} \tag{3}$$

In the above formulas individual characters have the following meanings:

- X and Y – random variables, defined by a measured values $x_1, x_2, \ldots x_k$ and $y_1, y_2, \ldots y_k$
- μ_x and μ_y – expected values for variables X and Y
- σ_x and σ_y – standard deviations of random variables X and Y.

Structural equation modeling is a confirmatory and not an exploratory statistical tool. That means that paths between latent variables are assumed, and those assumptions are confirmed in the process of model calculation. The objective of structural equation modeling is to assess, evaluate, and if need be modify the model, i.e. confirm (or reject) hypotheses assumed by the model.

The extended Triandis model has been adapted into a structural model, as shown in **Figure 2**. All manifest variables that have been collected as part of the survey are incorporated in SEM.

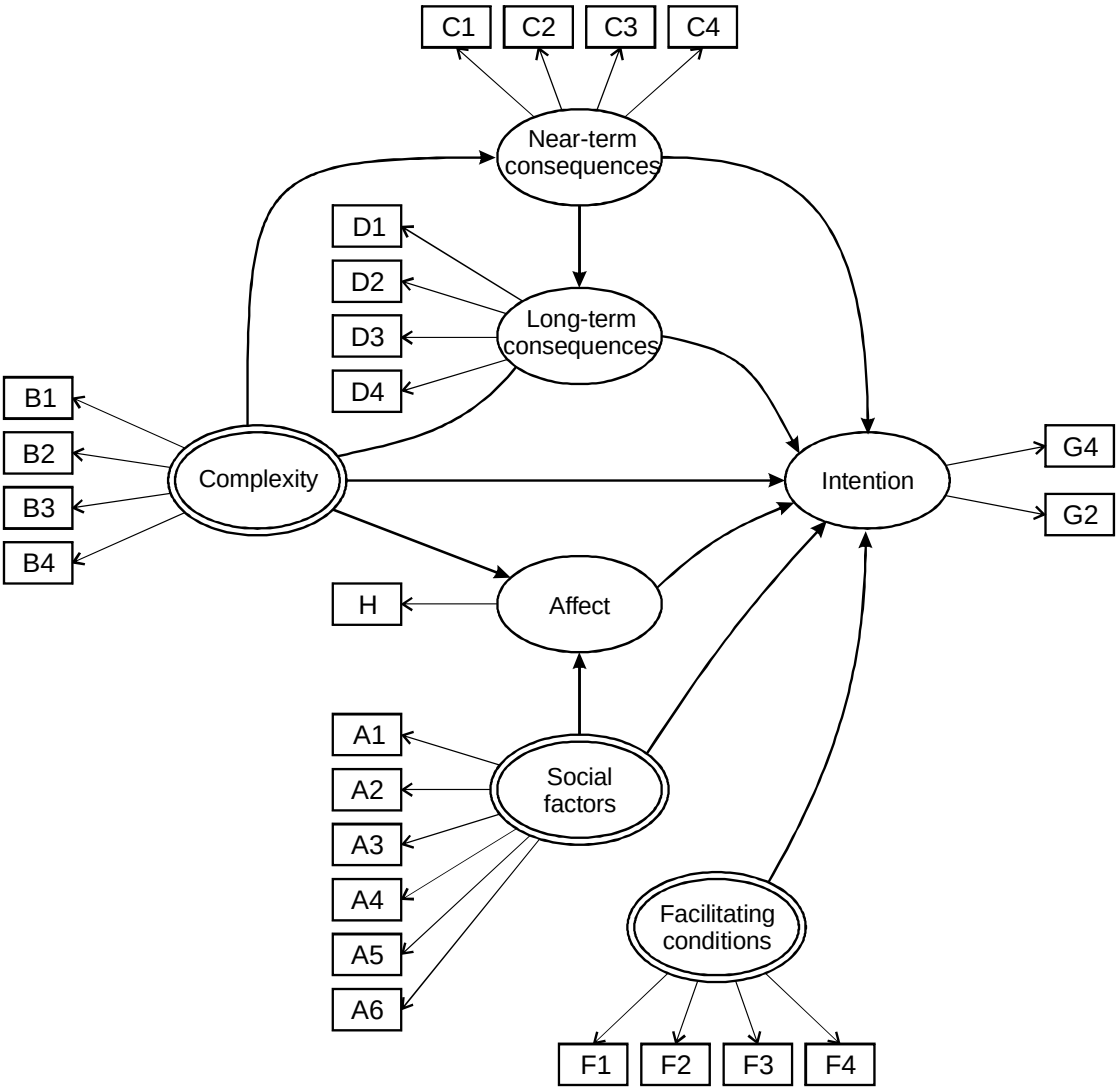

Figure 2: Structural Equation Model of problem under consideration

Model calculation was done using the Bentler-Weeks method. It is a regression method whereby each model variable, latent or manifest, is considered to be either exogenous or endogenous. The matrix of the Bentler-Weeks model is as follows:

$$\eta = B\eta + \gamma\xi \tag{4}$$

The formula means: If q is the number of manifest variables and r of latent variables, then:

- η ("eta") $q \times 1$ vector of endogenous variables
- B ("beta") $q \times q$ matrix of regression coefficient among endogenous variables
- γ ("gamma") $q \times r$ matrix of regression coefficient among endogenous and exogenous variables
- ξ ("chi") $r \times 1$ vector of exogenous variables

Endogenous variables (vector η) can affect one another and that is why their vector is present on both sides of the equation (4). In this survey it was thought that endogenous variables do not affect one another.

5. DATA PREPARATION FOR MODEL CALCULATION

A total of 99 completed surveys have been received. Numerical values were entered in Excel spreadsheet. Covariance matrix was calculated using Excel statistical function COVAR (for covariance) and VAR (for variance). Additional SEM model calculation, as shown in **Figure 2,** was done on *Statsoft's Statistica* 6.0.

Statistica supports database formats used by virtually all other spreadsheet calculators (e.g. *Microsoft Excel*). The spreadsheets can be used on *Statistica's* interface but also on the original software on which they have been created. This allows for the use of many additional functionalities which *Statistica* is incapable of, e.g. the calculation of covariance matrix.

All statistical models, source data and calculation results have been saved in a workbook, which was designed as a database with **.stw** file extension. The workbook can contain one or more documents. Those documents can be in the form of *Statistica*-based spreadsheets or in a different spreadsheet format. During the first preparatory stage of model calculation the survey results are entered in a preliminary source-data spreadsheet. Values of the variables measured collected from survey forms were sorted by columns. The heading of each column contains the symbolic equivalent of the variable (A1...A6, B1...). Each case contains responses written down on the survey form from one of the respondents and they are assigned a number on the left-hand side of the case. The spreadsheet containing all of the answers serves as the starting point for further calculations.

At the next stage, covariance matrix is calculated for numerical data containing responses to the survey. Only manifest variables described in Chapter 4 are taken into account (e.g. E set of questions has been omitted since it covers the evaluation of the Internet by those respondents already using the technology and general background data). Columns containing manifest variable values from Questionnaire Results Spreadsheet were copied to Excel whence the matrix was calculated. Covariance matrix must then be converted to *Statistica* format because that is the only way further SEM calculations can be performed on the data.

Finally, a structural model is defined on the basis of covariance matrix. The defining process is initiated once the appropriate selection is made in the *Statistica's* main menu:

Statistics → Advanced Linear / Nonlinear Models → Structural Equation Modeling.

Following the initiation, a window pops up where the structural model shown in **Figure 3** can be entered and edited. The model is defined through *Statistica-specific* syntax, which is described in Greater detail under [6].

SEM can be defined manually, by clicking on the Path tool button, or through the wizard by clicking on Path wizard. Irrespective of how the model is defined, Analysis syntax allows it always to be modified and updated. Parameters of the SEM algorithm can be modified in a separate window, which will pop up once the Set parameters button is clicked. Only one parameter was changed in this study: result standardization was enabled by setting the Standardization parameter for value new.

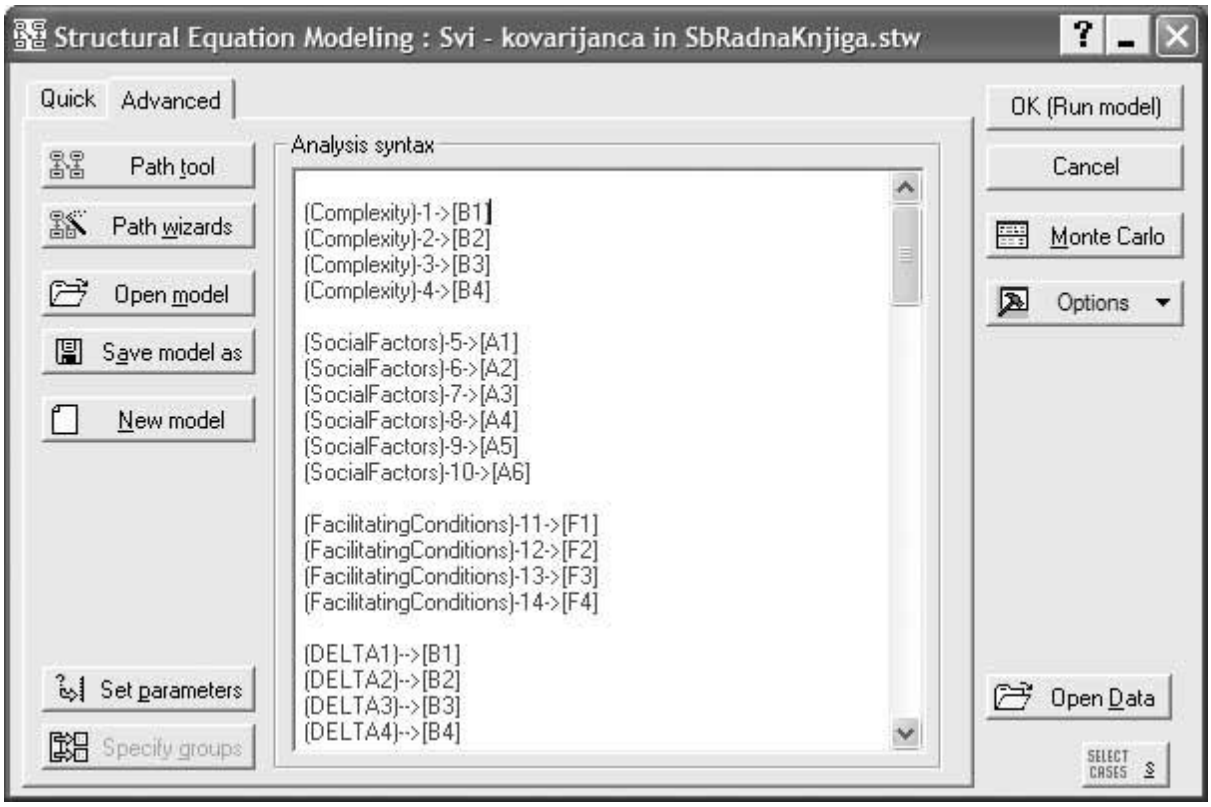

Figure 3: Interface for entering and editing an SEM

6. ANALYSIS OF STUDY RESULTS AND IMPLICATIONS

The survey was retuned by a total of 99 respondents. The demographic profile of the respondents shows that 35 of them were employed, 59 were students, and the rest were unemployed or unknown.

SEM coefficients are calculated and shown in **Table 1**. For sake of comparison, results of the study described in [2] are shown in column **[2]**. The results of our survey are shown in the column labeled **All**. The structural equation modeling and appropriate calculation were also done for students and employed individuals separately. Those results are shown in columns **Stud** and **Emp** respectively.

Impact	**[2]**	**All**	**Stud**	**Emp**
Complexity – Near-term consequences	**-0,326**	-0,314	-0,257	*-0,337*
Complexity – Long-term consequences	**-0,020**	-0,009	-0,189	*0,143*
Complexity – Intention	**-0,098**	-0,189	-0,256	*-0,273*
Complexity – Affect	**-0,346**	-0,115	-0,213	*0,060*
Facilitating conditions - Intention	**0,246**	0,045	-0,087	*-0,161*
Social factors - Affect	**0,239**	0,118	-0,001	*0,383*
Social factors – Intention	**0,282**	0,196	0,154	*0,370*
Near-term conseq. – Long-term conseq.	**0,727**	0,507	0,520	*0,318*
Near-term consequences - Intention	**0,243**	0,552	0,716	*0,144*
Long-term consequences - Intention	**-0,133**	-0,165	0,034	*-0,032*
Affect - Intention	**0,298**	0,313	0,025	*0,635*
Sample size (N)	**243**	99	59	*35*
Degree of freedom (DegFr)	**265**	265	265	*265*
χ^2	**488**	613,3	446,0	*517,3*
Relationship χ^2/DegFr	**1,84**	2,31	1,68	*1,95*

Table 1: Impact of factors on intention to use the Internet

The process of validation of the 7-factor model is shown in **Figure 2** as well as in [2]. It is based on comparison between the covariance matrix that was calculated using survey-collected data (Table 1) and covariance matrix extracted on the basis of values of individual variables which were calculated on the basis of the theoretical model. Pearson's χ^2 test was used for goodness of fit, in accordance with [1]. If a model is good then χ^2 is not statistically powerful at $P<0.05$ and the associated degree of freedom. Validity of a model can be assessed also on the basis of rule of thumb which states that the structural model is good if the ratio between his χ^2 value and degree of freedom is less than 2. The rule has been adopted from [4], and is the product of numerous works by authors Tanaka (1993.), Browne and Cudeck (1993.), and Williams and Holahan (1994.).

The ratio between χ^2 and degree of freedom is greater than 2 for all respondents in our survey (see column **All**). That means that the model is not good enough, i.e. that we cannot unequivocally confirm that the calculated model coefficients adequately describe the rules under which the researched factors affect intention to use the Internet. This may be due to one of the following:

1. Triandis Model is not good enough for analyzing our respondents. However, it proved to be good enough in the case of Chang's and Cheung's analysis. Therefore, the insufficient validity of the Triandis Model might be due to something else.
2. The body of our respondents is not homogenous. According to data in [2] all respondents were MBA students, while our respondents were both college seniors and employed individuals.
3. Sample size is not big enough. Table 3 shows that the number of respondents, N=243 in study [2] whereas in ours N=99.

We discarded the first option that the Triandis Model is not suitable for analysis of our respondents. We decided to check whether non-homogeneity of our respondent group is the cause of insufficient validity of the model. Therefore we stratified our respondents in two groups: students and employed. In turn SEM was performed on each of the two groups and coefficients calculated, as shown in **Table 1**: **Stud** column for students and **Emp** column for employed respondents. The results obtained for each group separately pass the validity test because χ^2/DegfFr has value of 1,68 and 1,95 respectively.

6.1. COMPARISON OF RESULTS BETWEEN STUDY [2] AND OUR STUDY

Figure 4 shows the results of the two studies on the impact of factors on intention to use the Internet. Coefficients obtained on sample size in [2] are shown in parentheses, our student sample in normal text, and our *employed* respondent sample in *underlined italic* text.

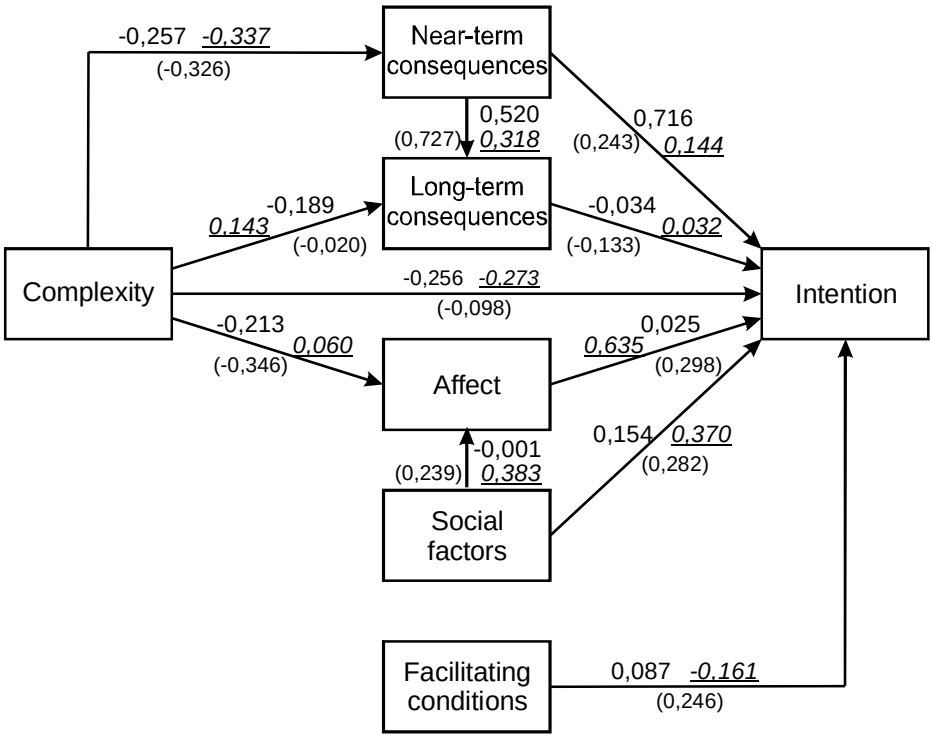

Figure 4: Comparison between study [2] and our study

Figure 4 clearly shows that some factors can affect intention not only directly but also indirectly by affecting other factors. For example, complexity has an indirect impact on intention by affecting near-term, long-term consequences and affect. The overall impact of all six factors on intention is shown in **Table 2**. The impact is calculated as the sum of each factor individually and the product of multiplication of coefficients along all paths of indirect impact. For example, the overall impact of social factors is equal to the sum of their direct impact on intention and the product of multiplication of impact those social factors have on affect plus on intention.

	[2]	Stud	*Emp*
Complexity	**-0,252**	-0,434	*-0,282*
Near-term conseq.	**0,147**	0,698	*0,154*
Long-term conseq.	**-0,133**	-0,034	*0,032*
Affect	**0,298**	0,025	*0,635*
Social factors	**0,353**	0,154	*0,613*
Facilitating conditions	**0,246**	0,087	*-0,161*

Table 2: Overall impact of individual factors on intention

The impact of individual factors on intention is shown graphically in **Figure 5**. The figure was done using Kiviat graph. Each axis depicts the total impact one particular factor has on intention to use, for each set of respondents separately. The set of all factors for respondent sample participating in [2] is marked by **bold** line. The factors for our student's sample are marked by thin line and for our sample of employed respondents are marked by dashed line.

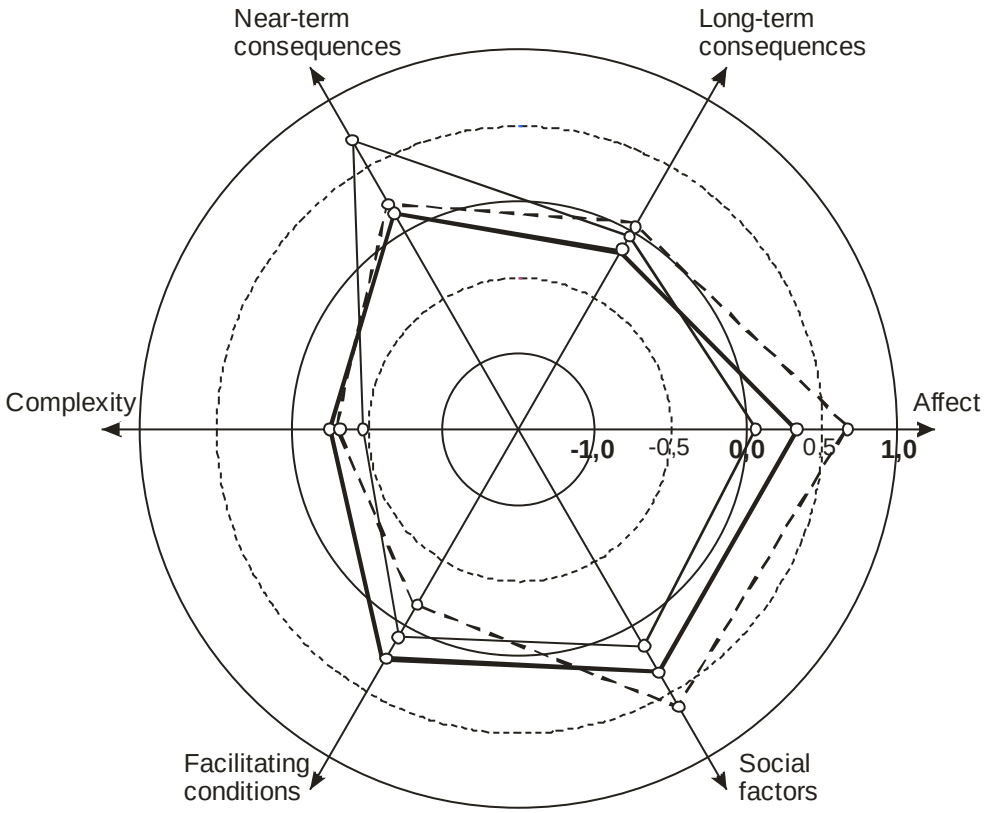

Figure 5: Kiviat graph of impact of individual factors

Our survey shows that complexity has a pronounced negative effect on expected near-term consequences. This was expected and evident even in the results of [2]. Interpretation is simple – technology that is complicated to use does not encourage people to think about the benefits that come as result of its use.

In Chang's and Cheung's survey, the impact complexity has on expected long-term consequences is negative and small. On the other hand, the negative impact of complexity on expected long-term consequences among the Croatian students is significantly higher, which was to be expected. The impact of complexity on expected long-term consequences among the employed respondents was positive, which is quite unusual and difficult to explain, except that people often lack understanding about convoluted novelties, but nonetheless think it will pay off in the long run and be useful.

Complexity has a significant and direct negative impact on intention to use the Internet, which was also to be expected. It is interesting that this particular impact is much more pronounced among the Croatian respondents than in the case of respondents in study [2]. Hence it can be inferred: (a) complex procedures discourage our people from using and (b) our web designers should see to it to design simpler and more user-friendly solutions for use of this modern communication technology.

Complexity exerts strong negative impact on affect of Chinese respondents and to a somewhat lesser degree, though still high, on affect of Croatian respondents. These results come as no surprise and are easy to interpret by a simple fact that people are generally not too keen on using complex technologies. However, it does come as surprise that complexity has no impact on affect among Croatian students. This can be explained by omnipresence of Internet usage among students (especially at FOI!), so that affect is completely eradicated as a factor of impact.

Facilitating conditions have almost no impact on intention among our students. Our students today clearly think that the Internet is readily available technology because they have all necessary infrastructures at their disposal and thus do not consider facilitating conditions to be a relevant factor of impact on intention to use the Internet. Chang's and Cheung's results on the other hand reveal that facilitating conditions have a relatively high impact on intention to use the Internet. A possible cause might be that technical capabilities pertaining to Internet access in 2000, when the survey was administered originally, were inferior to those in Croatia in 2003, when our survey was carried out. This particular impact is present among the employed respondents in Croatia but it is less pronounced and negative. However, given that it is in correlation with the negative impact of complexity, it can be interpreted perhaps that "regular" employees have a notion that mastery of increased facilitating conditions requires a great deal of extra effort.

The impact of social factors on affect and intention is very strong both among the Chinese respondents and Croatian employees. Possibly, it is that conformity is ever so slightly present in human behavior. Unlike the above two groups, students are much less affected by social factors with respect to intention, and almost negligibly with respect to affect. It seems that a popular belief that student is something of a rebel and non-conformist is true, at least when it comes to intention of Internet usage.

All three respondent groups show that impact of near-term consequences on long-term consequences and in turn on intention ranges from significant to highly pronounced. Short-term consequences very strongly or at least significantly affect long-term consequences and intention. This means that all three respondent groups experience the Internet in similar fashion – as technology useful in solving daily chores and tasks.

For all three groups of respondents, the impact of expected long-term consequences on intention is negligible, and even slightly negative in the case of Chinese respondents. The cause for that attitude may be that the Internet is perceived as useful only for daily chores and tasks, but is not as a long-term technology one would base their professional career on. This points out a possibility that most of the respondents believe that their professional career long-term depends on factors other than the Internet, but that is only a presupposition which needs either to be confirmed or rejected by further research.

We expected a significant impact by affect on intention to use the Internet both among the employees and students. Among the employees this is by far the most pronounced factor and far stronger than among the Chinese respondents. What comes as surprise are the students: the impact by affect on intention to use the Internet is negligible. We interpret this similarly as we did complexity: Internet usage is so prevalent and self-evident among students (especially at FOI!) that affect as a factor of impact disappears.

Complexity has shown to be a very significant factor as regards intention to use the Internet because it strongly affects intention directly, as well as indirectly by way of impact on expected short-term

consequences and affect. That is why development of IT and computer technology in the direction of easier and more intuitive use of computers is definitely justified.

Unlike in the case of the Croatian students and respondents to survey [2], affect is a very important factor among the Croatian employees in intention to use the Internet. Social factors come in second with strong impact on affect. This we attribute to subordination of the employees to the hierarchical structure of organizations in which they work. These results should encourage the management in the private and public sector to popularize the use of Internet technologies, as well as endorse and praise those employees who do. Besides, employees would benefit greatly from courses on Internet usage because complexity inversely affects expected near-term consequences. These courses should first of all popularize the technology and emphasize the simplicity of use in order to raise personal affect of employees toward the use of Internet.

7. FINDINGS AND RECOMMENDATIONS

The Triandis Model applied to our survey respondents corresponds to the survey analysis described in [2]. Even the general coefficient flows are quite similar. This points to the validity of the extended Triandis Model for analysis of this type of surveys. The model has shown to be sensitive to homogeneity of surveyed population. In our study, the extended Triandis model was not sufficiently good for the overall population, but was successfully applied on homogeneous groups into which the surveyed population was stratified. The model turned out to be very suitable for surveying students. As for employees, it was good enough but verging on invalidity probably due to a small number of respondents. Therefore, to arrive at more reliable findings it is necessary to administer the survey on a larger sample, especially on employees. Such studies should also be carried out by different stratifying criteria such as age, type of employment or gender.

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