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The influence of time perception on employees' individual innovative behaviour:
a cross-sectional study among Swedish engineering consultants

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Abstract

Title: *The influence of time perception on employees' individual innovative behaviour: a cross-sectional study among Swedish engineering consultants*

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Keywords: Innovative behaviour, time, time perception, employees & innovation, temporal orientation, temporal depth, time management

Research question-/s: How does the time perceived by employees influence their individual innovative behaviour?

Methodology: The research strategy of the study is quantitative with the use of a deductive method with influences of induction. Overall the design is a cross sectional study design with the primary source of data collection through an online survey administered to a selected sample.

Theoretical perspectives: Literature of time on an individual level and innovative behaviour forms the theoretical foundation of this thesis. In addition, theory in the fields of creativity, psychology as well as time on an organizational level has been applied.

Conclusions: Employee´s time management and future temporal orientation influence their innovative behaviour. A hopeless temporal orientation towards the past and temporal persistence shows no statistical significance support for influencing innovative behaviour.

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To our fellow students, thank you for your thoughtful ideas and painstaking feedbacks at seminars, aiding us in developing this thesis.

Sincerely,
Emanuel and Chiara

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Chapter 1: Introduction

This chapter provides the background, problem discussion, information on the study setting, and will serve as an introduction to the research conducted in this thesis, namely the relation between employees' perception of time and their respective innovative behaviour.

1.1 Background

The knowledge era has propelled economies worldwide towards more service oriented economic systems, and as a result of developments in technology, increasingly complex dynamics are making headway into the business environment (Doz & Kosonen, 2010; Uhl-Bien et al., 2007). Recent literature in the field of innovation stresses this increasingly dynamic environment and higher importance of innovation as a mean to stay competitive (Schmitt et al., 2016; Teece, 2010; Higgins, 1996). "No company can escape the effects of rapidly changing technologies and markets. Existing products become obsolete and are replaced by new or improved products. Product innovation is one route to corporate survival and prosperity for many firms" (Cooper & Kleinschmidt, 1987, p.222). Innovation increases the chances of survival and improves performance and profitability of the firm (Damanpour et al., 1989; Gunday et al., 2011), but comes with the condition of needing to be capable to adapt to a new environment and continuously learn (Van de Ven, 1986). To achieve this goal and evade threats in the marketplace, companies need to enact innovation (Audretsch, 1995; Christensen, 1997). In the pursuit of sustaining a competitive advantage, specific behaviour and knowledge provide success for the long term (Bessant et al., 2001). While technological science was capable of driving expansion 60 years ago, companies of today need to master a faster pace and turn to its employees to champion and drive innovation (Rothwell, 1994). "This new age is about an economy where knowledge is a core commodity and the rapid production of knowledge and innovation is critical to organizational survival (Bettis & Hitt, 1995; Boisot, 1998)" (Uhl-Bien et. al, 2007, p.299).

The increased competition and shorter life cycles of products (Hayes et al., 1988; Womack et al., 1990) also turn time into a critical variable in order to stay competitive and meet the required

growth (Guveritz 1983; Rosenau 1988). In other words, time has become a crucial factor for survival in dynamic markets (Gehani, 2005; Eisenhardt and Brown, 1998). Not only has it become necessary to evaluate the time needed to bring new products to market but also the time needed to produce more ideas (Carlson 1994; Vesey 1992; Griffin, 1997). On an individual level, innovation is sparked by the ability and potential to generate novel ideas through activities involving creative thinking (Amabile & Pratt, 2016; Amabile, 1988). Amabile et al. (2005) refer to creativity as "the production of novel, useful ideas or problem solutions" (Amabile et al., 2005, p. 368). However, to reach innovative outcomes on a firm level, ideas also need to be implemented and championed in the organization (Howell et al., 2005). The concept of innovative behaviour is capturing both the acts of creativity and implementation of ideas, defined by Janssen (2000) as the "intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group or the organization" (Janssen, 2000, p. 288). In any scenario, "there is no doubt that the employees are the main force for the organizations, and their innovative behaviours are vital for innovation performance of an organization" (Li & Zheng, 2014, p. 446). However, since innovative behaviour is often undertaken outside of given work roles (Janssen, 2000), the inclination towards engaging in an innovative behaviour varies and is based on the employees' subjective perception of the organization and the environment (Eisenberg et al., 1990; Scott & Bruce, 1994). Thus, innovative capabilities are heavily affected by both human factors as well as the context and organization in which those behaviours occur (Subramaniam & Youndt, 2005).
At the organizational level, time is predominantly measured to allow for efficient planning (McGrath & Rochford, 1983). Management chronically routinize work to save time (Kesting & Ulhøi, 2010) and henceforth control time perception and how it is used (Araujo & Easton, 2012). Time in this sense is tied to a cultural and social context and is a shared concept among people, resulting in a customary perception of time in organizations (Hall, 1983; Bluedorn & Denhardt, 1988). Perception in this context is defined as "the way in which something is regarded, understood, or interpreted" (Oxford Dictionaries | English, 2018).

In summary, companies need to understand innovation in relation to time in order to navigate in the changing environment and keep a competitive advantage (Eisenhardt & Brown, 1998; Gopalakrishnan, 2000; Gunday et al., 2011). Within the topic of perception it is of utmost importance to consider the individual level. Some employees in an organization are conforming to rules and thrive well within defined structures while others challenge the customary order, thrive in ambiguity and implement dynamic solutions (Kirton, 1976). The latter constitutes traits that are consistent with those of innovative behaviour (Janssen, 2000) that in a dynamic business environment is key to create and retain a competitive advantage (West, 2002).

1.2 Problem Discussion

The general awareness of time as a resource in attaining a competitive advantage has increased with the economic development (Taylor, 1911). This heightened awareness is a result of the perceived increase in the value of time and has led to time being defined and measured in more detail (Gehani, 1995). Well documented in research are also the relations between companies, time and competitiveness with theories explaining the existing dynamics (Nadkarni et al., 2016). Expressions such as “first to market” or “speed of innovation” are widely used within the innovation literature (e.g. Griffin & Page, 1996; Bayus, 1997; Barczak, 1995) and markedly indicate the importance of time in gaining competitiveness.

Within the corporate context, time has mostly been studied extensively in planning and top management decision making (e.g. Das, 1987; Eisenhardt & Brown, 1998; Dean, 1974; Bluedorn & Denhardt, 1988) with top management pointed out as a key factor in driving innovation (Ling et al., 2008). Moreover, leadership skills in navigating a fast changing and dynamic environment have put a light on the abilities of managers and CEOs to understand the complexity of time, and the need to perceive its impact on the firm (Tushman & O’Reilly, 2004; Uhl-Bien et al., 2007). However, companies and their management also need to understand the perception of time of their employees that is influenced by both the professional as well as private environments, and how this complex interaction then influences innovation (Halbesleben et al., 2003). In practice, a company can enhance their employees’ innovative behaviour through a certain leadership, structure and culture supportive of such behaviour (Goepel et al., 2012; Scott & Bruce, 1994; de Jong & Den Hartog, 2007). The actual organizational effort is depending on how the support is perceived by the recipient (Amabile & Pratt, 2016; Mumford & Gustafson, 1988), hence firm level innovation outcomes hinge on the employees’ perception (Clegg et al., 2013; West et al., 2003; Subramaniam & Youndt, 2005). In this sense, perception marks the difference between employees' innate ability and their willingness to innovative (Kesting & Ulhøi, 2010).

In contrast to the amount of literature of time perception on managerial and organizational levels, there has been little research on time and various perceptions of time influencing employees and innovation, exceptions being Halbesleben et al. (2003), Lerner et al. (2007) and Chen and Nadkarni (2017). Although the perception of time is influenced by external factors as well as the organizational environment (Holman & Zimbardo, 2009), as earlier stated, time is also perceived by employees on an individual level (Bluedorn & Denhardt, 1988; Dubinskas, 1988; Nuttin, 1985). Considering today's increasingly flat organizations (Townsend et al., 1998), the rather sparse research covering the role of employees and the influence of time on employees' innovative behaviour is noteworthy. Therefore, a distinction of levels within an organization is made and employees in this study are defined as consultants with non-managerial positions working in an organization that provides professional services to other companies. A further reason this study focuses on employees is that they are crucial to the innovation process in that they find opportunities, generate new ideas and push these ideas and concepts for approval (Amabile et al., 1996; Howell et al., 2005). For companies competing with knowledge as the main competitive advantage, this is particularly important as the employees and their knowledge are the most valuable assets of the firm (Anand et al., 2007).

Research on the perception of time has shown that it is a complex phenomenon impacting employee behaviour and encompassing employees' interactions with managers and the organization as a whole (Eisenberg et al., 1990). Other studies found out how employees' perception of time influences the propensity to carry out individual innovative activities (Lerner et al., 2007). In addition, the perceived level of support, supervision, compensation, and training have all been proven to have an influence on innovative behaviour. Thus, perception is an integral part to make innovative behaviour flourish in an organization (Eisenberg et al., 1990; Veenendal & Bondarouk, 2015).

In summary, the rapid economic and technological development lets companies face increased competition and necessitates an effective and efficient use of time for all firms, especially for those that base their value proposition almost entirely on time and the knowledge of its employees, such as consultancies. Innovation is able to transform a business and deliver the change to ensure its survival. To succeed, companies need to better understand time and its relation to innovation on an employee level. Given this understanding, companies can aid employees to perceive time in a way that is accommodating towards innovative behaviours, as this will result in a firm level outcome of innovation and sustained competitive advantage. To conclude, studies have been conducted on the impact of time perception on innovation at the organizational and managerial level, but the point of differentiation of this thesis is the focus on the different role of time perception on innovation within non-managerial employees (Montani et al., 2014).

1.3 Purpose and Research Question

Based on the current studies in the field of innovative behaviour and time perception, the aim of this research is to contribute to filling the outlined research gap. In doing so the focus of this study is the innovative behaviour of employees and how it can be influenced by their perception of time. This is achieved by a quantitative testing of hypotheses derived from theories in the aforementioned fields to identify the relationship between the two concepts. Thus, hypotheses will later be formulated around the following research question:

How does the time perceived by employees influence their individual innovative behaviour?

The purpose of this study is to discover the effect of the variable of time in relation to innovative behaviour by testing theories and therefore contribute to the innovation literature in general and the field of innovative behaviour in particular. The theory testing builds on established research that investigated the relation between concepts of time and creativity, innovativeness and employees' role in innovation, which are the foundations of innovative behaviour. Furthermore, by taking an exploratory approach this study hopes to add novel findings to the existing literature that can, in turn, support further research. Additionally, the implications of the findings can provide companies facing increased competitiveness and the need to innovate with valuable insights by understanding the possible moderating effect of employees' perception of time. For practitioners in the areas of human resource management and innovation management, these findings shed light on hiring practices, team composition, training and development as well as barriers to innovation. For the latter, employees' perception of time can be of a particular interest as it might be able to explain why two individuals in a similar work setting and under seemingly identical conditions and resources exhibit different innovative behaviours.

1.4 Case Company

Consulting companies traditionally operates on a business model offering services based on the utilization of time (Sturts & Griffis, 2005), and new knowledge creation is a common trait among consulting companies as part of their competitive advantage (Anand et al., 2007). However, technological developments have led to a democratization of knowledge, increasingly threatening to disrupt the market for consulting companies in the absence of an innovative capability and output (Christensen et al., 2013). Despite a high level of knowledge among employees, consulting companies are struggling and are in a dire need to innovate and develop new value offerings (Ross, 2016). Following increased competition in the last decades, consultancy firms have been eyeing intensifying innovation efforts as a way forward. Overall a dichotomy between the high economic value of objective time, here thought of as clock-time and a "time is money" perception, and the need for innovation makes for consulting companies a critical case to test our research question. In the light of these statements, a Swedish consulting company was chosen as case company to carry out the research outlined in this thesis.

Early data collection in the form of interviews displayed a high priority of the utilization of time and an emphasis put on efficient work structures. This is in particular evident among department managers where deadlines and scheduling time are prioritized, presumably carrying the high attention to time on an organizational level forward to the employees below in the organizational hierarchy.

In relation to innovation, more than 90% of the employees showed interested in innovation but less than 10% of those had ever actively taken part in innovation projects (Company survey, 2018). Further, it is important to consider that overall each department within the company has a utilization goal of 85% of all time invoiced to clients. This results in 15% of the time left for administrative tasks and miscellaneous work, including time for coming up with ideas and searching new knowledge or opportunities.

At an employee level, the average consultant works with 4-8 projects in his or her field of work. Projects can be as short as a few days, but others can last for up to a year. The department managers usually assign projects to their employees, which require the consultants to manage time efficiently in order to be able to handle the projects to the satisfaction of both the managers and the clients.

This situation and environment will be favourable in testing the hypothesis formed around the research question. Taken together, the case company provides an interesting ground for researching the relationship between employees' perception of time and their propensity towards innovative behaviour, and contribute to the field of innovation, and innovative behaviour in particular.

Chapter 2: Literature Review

Starting by explaining and defining innovative behaviour, this chapter will further outline the main elements of innovative behaviour and how the concept relates to perception. As a backdrop, time is covered as a general concept as well as on an organizational level. The chapter is concluded by tying together innovative behaviour with perceptions of time and the formulation of hypotheses.

2.1 Innovative Behaviour

Innovation is a firmly established key driver of economic development and competitive advantage (Van de Ven, 1986). The antecedents to a firm's innovative performance and output is largely an effect of the employees' innovative behaviour (De Jong & Den Hartog, 2007). The concept of innovative behaviour captures both the creativity needed to generate ideas (Lukes & Stepan, 2017) and the implementation of ideas (Howell et al., 2005). Thus, ultimately positioning innovative behaviour as a theoretical concept central to innovation.

Early studies (e.g. Hurt et al., 1977; Kirton, 1976) analyse the concept of innovative behaviour as unidimensional. Hurt et al., (1977) build on the research by Rogers & Shoemaker (1971) and

Feaster (1968) and adopt a view of innovativeness being a personal trait. Hurt et al., (1977) with this view of innovative behaviour make use of a measure of 20 self-report questions to define innovativeness among college students. Kirton (1976) takes a similar approach and distinguishes personalities on a continuum of innovators, defined as “doing things differently” (Kirton, 1976, p. 622) and adaptors defined as “doing things better” (Kirton, 1976, p. 622). Even earlier studies are similar in defining innovativeness as a personal trait and focus on attributes such as risk taking and being tolerant to uncertainty (e.g. Bruner & Tajfel,1961; Cancion ,1967).

In more recent studies (e.g. Scott & Bruce, 1994), innovative behaviour is introduced as a more comprehensive concept, defining innovative behaviour in a work setting as being moderated by the environment in the organization.

By defining innovative behaviour, Scott & Bruce (1994) posit that the concept of innovative behaviour is a multistage process. The process captures both the activities of creativity and innovation as overlapping during the process and used as needed by individuals. Creativity in this sense is defined as the generation of novel, valuable ideas (e.g. Amabile, 1988) and innovation, referred to as either the production of ideas or implementation of ideas (e.g. Van de Ven, 1986).

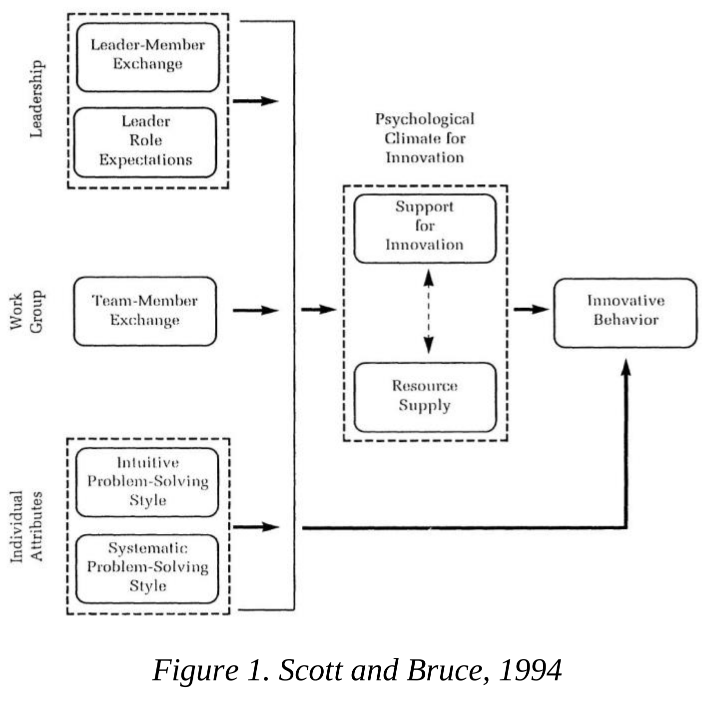

Figure 1. Scott and Bruce, 1994

In modelling the antecedents to innovative behaviour (Figure 1), Scott & Bruce (1994) identify leadership, work group, psychological climate for innovation and individual attributes as determining innovative behaviour.

Leadership pertains to the relationship between the employee and the leader. This notion is grounded in the Leader-Member Exchange theory which posits that leaders develop a unique relation to each employee, impacting the behaviour of the employee in accordance to the unique features of the relation (Dansereau et al., 1975). In horizontal relations between individuals within teams, the same theory can be applied to understand the cooperation and collaboration among team members, as in sensing trust and respect among peers in the group (Scott & Bruce ,1994).

Climate for innovation is the "cognitive interpretation of an organizational situation" (Scott & Bruce, 1994, p.582) by an individual, meaning that the perception sets the effectiveness of organizational support. The concept of "individual attributes" refers to individual character and innate ability to solve problems.

Reflecting over the wording, and the use of behaviour by Scott & Bruce (1994), instead of personality traits found in the work of Hurt et al., (1977) and Kirton (1976), it becomes apparent how innovative behaviour results from both individual attributes as well contextual factors such as team and organizational antecedents. Thus, organizational environment moderates as a contextual factor innovative behaviour.

2.1.1 Innovative Behaviour vs Creativity

If it becomes apparent that the organizational context moderates the individual innovative level (Scott & Bruce, 1994; Janssen, 2000; Lukas & Stepan, 2017), nonetheless, as argued by West & Farr (1990), the distinction between creativity and innovation in the innovation literature is not entirely clear.

Some clarity is provided by De Jong & den Hartog (2007) by stating that innovative behaviour is different from employee creativity in the sense that innovative behaviour implies both the creation of new and useful ideas, as well as the implementation of ideas. Thus, employee creativity, defined as novel and useful ideas or solutions to problems (Amabile, 1983) is incorporated in the concept of innovative behaviour, see Figure 2 (De Jong & Den Hartog, 2007). De Jong & Den Hartog (2007) uses the term innovative work behaviour to underline that the innovative behaviour takes place in a work setting.

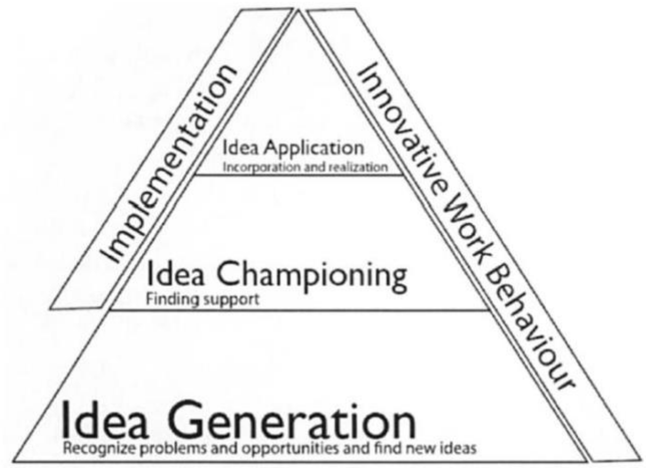

Figure 2, Adopted from Veenendal and Bondarouk, 2015

The findings reassemble the train of thought in the field of creativity, exemplified by Mumford and Gustafson (1988). Thus, on an individual level, the capability to develop "field specific knowledge structures and understanding" (Mumford and Gustafson, 1988, p.38) impacts creative potential on an individual level. On the other hand, at an organizational level, supportive structures, encouraging independence as well as intrinsic motivation conditions the individual creativity. These arguments are in line with other scholars (e.g. Amabile, 1988) pointing to the interdependencies between organizational support for innovation and individual creativity, leading to innovative outcomes.

2.1.2 Innovative Behaviour: Characteristic and Elements

To clarify the characteristics of innovative behaviour and the structural components building the concept, Kleysen & Street (2001) provides a thorough framework developed by reviewing the literature and validating the findings through empirical study, substantiating innovative behaviour characteristics.

In the construct by Kleysen & Street (2001) innovative behaviour is established as a concept by the dimensions opportunity exploration, generativity, formative investigation, championing and application. Similar findings by Lukes & Stepan (2017) support these dimensions as core to defining innovative behaviour. Lukes & Stepan (2017) is nonetheless also arguing for the factor *"involving others"* as a part of innovative behaviour. This, in line with Scott & Bruce (1994) and Howell et al. (2005), implying the required social interaction within the organization to spur innovative behaviour. Kleysen & Street (2001) however captures the social interaction as lodged within each dimension instead of as a separate factor.

In this study, the five dimensions of Kleysen & Street (2001) is adopted to measure innovative behaviour. Each dimension of the construct is based on and supported by a range of scholars well known and cited in the academic field of innovation; Opportunity exploration (e.g. Van de Ven, 1988; Damanpour, 1991), generativity (e.g. Kirton, 1976; Amabile, 1988), formative investigation (Amabile, 1988; Damanpour, 1991), championing (Howell & Higgins, 1990; Ford, 1996) and application (Zaltman et al., 1973; Kanter, 1983). The rigour in the development of the construct ensures a well supported measurement of innovative behaviour and allows for a multidimensional view of the concept innovative behaviour.

Kleysen & Street (2001) refer to opportunity exploration as the act of sifting through the environment to recognize opportunities and evaluate their potential, for the benefit of the organization. Lukes & Stepan (2017) further posit that "innovative activity may also be triggered by individuals searching for new ideas in their environment" (Lukas & Stepan, 2017, p.138). In this sense, idea search or opportunity exploration is thought of as a search and assessment with the aim of generating new innovative ideas.

Generating ideas is a core component of the early phase of innovation process and is fundamental in turning individual creativity into innovation (Amabile, 1988). Idea generation as a characteristic of individual innovative behaviour is also evident in the model by Scott & Bruce (1994) as well as in the research by Ford (1996). Nonetheless, for ideas to be shared and ultimately implemented, they need to be formulated and conceptualized in a way that it allows others to understand and grasp the idea (Amabile, 1988; Damanpour, 1991).

Kleysen & Street (2001) define this as the formative investigation "giving form to and fleshing out ideas, solutions, and opinions and trying them out" (Kleysen & Street, 2001, p. 286). The implementation of ideas encompasses what is in the innovation literature frequently referred to as championing. "Champions create and communicate strategic meaning around the innovation, persistently promote the innovation, sell the idea to top management in order to secure resources..." (Howell et al., 2005, p. 645). The concept of "implementation starting activities" refers to garnering the resources to get an idea off the ground (Scott & Bruce, 1994; Ford, 1996) and/or the process of seeking approval for the implementation for innovations within the organisation (Howell et al., 2005). This step requires innovative individuals to persist in making the innovation an integral part of the organization. In practice, this entails to adapt and refine the innovation to a level where the organization can absorb it, at which the innovation as an abstract cease to exist (Lukes & Stepan, 2017).

2.2 Innovation and Perception

Within the innovation literature, perception is not a single defined concept but rather the components of the definition here stated incorporated in the various theories.

The role of perception and its relation to innovation outcomes has been studied in organization support (Eisenberg et al., 1990; Janssen, 2000), trust (Clegg et al., 2002), management of innovation (Van de Ven, 1986), individual creative action (Ford, 1996) timescape and innovation (Halbesleben et al., 2003), clarity of leadership (West et al., 2003) and perception of usefulness in adopting new technology (Karahanna et al., 1999; Ahearne et al., 2005).

Halbesleben et al., (2003) posit a link between time awareness, creativity and innovation, and points out awareness of the timescape, defined as a variety of different perceptions of time among employees, as a key for leaders of innovation projects to reach innovative outcomes. The argument is made that leaders with a high awareness of the timescape are able to both manage the employees' creativity and the organizational innovation process. Continuing on the topic of leadership, West et al. (2003) propose that the level of clarity in the leadership predicts the level of innovation. By communicating clear roles within the leadership and objectives for performance, team members below in the hierarchy can perceive the organizational goals as clear, resulting in higher levels of innovation.

Employees perceiving the organization in which they work as caring and supporting shows a higher innovative behaviour, even without being rewarded or recognized for the deed (Eisenberg et al, 1990; Veenendal & Bondarouk, 2015). Moreover, Veenendal & Bondarouk (2015) argues a perceived fair compensation is negatively related to both individual creativity and championing.

Extrinsic rewards have earlier shown to have a negative influence on creativity and as a contrast, intrinsic motivation has been identified as a key to individual innovative behaviour (Griffin et al., 2014). Building further on the perception of the organization, Clegg et al. (2002) posit perceived trust in the organization by employees has a positive influence on the implementation of ideas as well as the number of suggested ideas. The reasoning stemming from “what is good for the organization, is good for me”.

In the conceptual framework on management on innovation by Van de Ven (1986), the innovation process is described to contain the four concepts of ideas, people, transactions and context. Central to the concept of ideas Van de Ven (1986) argue is the ability to be attentive to new ideas and changes in the environment to recognize a need for innovation that can create new innovative ideas. Individuals failing to perceive changes in the environment and see the need for change early enough will find themselves in a state of creating ideas for reassembling crisis management, not innovation. Perception in this sense of being attentive is, however, more closely linked to search activities and recognizing opportunities (Shane, 2000), hence perception is focused externally, not internally in the organization. Other scholars within the field of innovation also use opportunity recognition (e.g. Khurana & Rosenthal, 1997; Griffiths-Herman Grover, 2006;) as an antecedent to idea generation.

In the field of creativity, Ford (1996) in a similar manner posits individuals hold different characteristics in the ability to interpret information and argues that “Unusual interpretations facilitate creative action, in part because they elicit intentions that can mobilize a person's motivation and ability toward creative action.” (Ford, 1996, p. 1119). The individual interpretative process initiates creative action, which is an important element in the innovation process, thus individual interpretation process ability impacts innovative outcomes (Ford, 1996).

Perception further also plays a role in the diffusion of new technology. Karahanna et al. (1999) posit that the perceived subjective norm towards new innovations impacts whether a new innovation will be adopted. In addition to the subjective norm, which is defined as the general consensus among top management, supervisors, peers and department managers, the support or resistance to the innovation being adopted is influenced by the individual interpretation of the usefulness of the new technology. In an empirical study, Ahearne et al. (2005) proved the relation between perceived usefulness of a new technology and the likelihood of adopting a new technology. The diffusion of new technology in organizations and the adoption of new technology by individuals is essential to fuel innovative outcomes on a firm level (Hargadon & Sutton, 1997).

2.3 Time

"The notion of time is one of the oldest and most fundamental concepts in science. And yet there is no general agreement about what time is." (Primas & Atmanspacher, 2017).

Despite that, time as an abstract concept has been applied in research in a wide range of fields including economics, organizations, psychology, biology and technology (Tuttle, 1997). In fact, time represents a unique measure for comparison given its egalitarian and scarce nature: "everyone has just 24 hours a day….and everyone agrees more time would be better" (Goodin et al., 2008, p.3).

An important distinction, especially if considering management practices, was made already by ancient Greeks. Time was seen as composed of two complementary aspects: *Chronos* and *Kairos* (Primas & Atmanspacher, 2017). Chronos, as defined by Aristotle (1983) "number of changes with respect to the before and the after", is a quantitative item that can be measured with clocks. On the other hand, Kairos is qualitative and could be simply thought of as "when the moment is right" (Garud et al., 2013, p, 795).

In social sciences, these two broad categories of time in how to perceive time are objective and subjective time (Orlikowski & Yates, 2002). Objective time can be thought of as "the interval of time between two events can be unambiguously measured" (Tuttle, 1997, p. 352). Due to its potential to be measured and compared objectively (Araujo & Easton, 2012), academic fields such as strategy research and business management has widely applied an objective time perception to frame the discourse (e.g. Mosakowski & Earley, 2000: Bluedorn & Denhardt, 1988). Subjective time, on the other hand, is a concept where time is perceived and experienced individually (Tuttle, 1997; Slawinski & Bansal, 2017). Overall, few studies have been published where both subjective time and objective time are measured and compared (Slawinski and Bansal, 2017), exceptions in relation to innovation being e.g. Halbesleben et al., (2003), Reinecke & Ansari (2015) and Lerner et al. (2007).

2.3.1 Time in Organizations

Mosakowski & Early´s (2000) study showed that objective time, defined as time being linear, absolute and mechanical (Orlikowski & Yates, 2002) dominates the perception of time taken on an organizational level. Time being commoditized and thought of as “time is money” is a presumption well over 100 years (Bluedorn & Denhardt, 1988). The concept of objective time is a wide term that also captures the economic time perception, including organizational and individual scheduling and planning (Tuttle, 1997).

Crossan et al. (2005) in their work “Time and organizational improvisation” shows how the dominating objective time perception in most organization, defined as *“*the manipulation, active planning and execution of strategic action” (Crossan et al., 2005, p. 135), needs to challenge to ensure better firm performance, as in being able to adapt the organization to more than one perception of time.

The theory of Eisenhardt & Brown (1998) contrasts Crossan et al. (2005) in a sense that linear, objective time is used to synchronize and represent a strength in how to manage the organization. Eisenhardt & Brown (1998) exemplifies this and suggests time pacing for the organization, defined as “creating new products or services, launching new business, or enter new markets according to the calendar” (Eisenhardt & Brown, 1998, p.60).

Following the thinking of Crossan et al. (2005), Reinecke & Ansari (2015) points to the divergence between objective time and other perceptions of time within an organization. This led to the concept of “*ambitemporality*” to cater for a variety of perceptions of time within an organization and reach better coherence between the internal and external environment. Ancona & Chang (1996) acknowledge the notion of diverging perceptions of time within one organization but use the term “*entrainment”* as for how individuals or groups in an organization can match their rhythm and work in sync. In relation to innovation, Lerner et al.´s (2007) study showed that matching the perception of time between employees and the organization has a positive effect on corporate entrepreneurship and innovation outcomes. Furthermore, on the interaction between employee and organization, Slocombe & Bluedorn (1999) showed that organizational commitment increases when there is an aligned view between employee and organization.

Thus, for companies, a capability to set a time narrative that can cater for a variety of perceptions of time is vital to make sense of the uncertainty brought with innovation (Araujo & Easton, 2012). By being able to manage this temporal ambivalence narrative, companies ensure a match between innovative activities carried out by employees and the external timing needed to understand how those activities are best put to use for the firm (Halbesleben et al., 2003).

2.4 Time and Perception

Perception of time can be thought of as both situational and dispositional. A situational perspective posits that the perception of time is contextual, and an individual's perception of time changes depending on external social and cultural factors (Holman & Zimbardo, 2009). The dispositional perspective refers to a perception of time that is stable and a part of an individual's persona, meaning it is individually held (Chen & Nadkarni, 2017).

Hall (1983) proposes that the perception of time at an individual level largely forms by social interaction between people and that individuals adopt a perception of time that allows them to function in a social setting. Orlikowski & Yates (2002) argues temporal structures are "both shaping and being shaped by ongoing human action, and thus as neither independent of human action (because shaped in action), nor fully determined by human action (because shaping that action)" (Orlikowski & Yates, 2002, p. 684). Orlikowski & Yates (2002) further states that these temporal cues are moulding a single perception of time, rather than individuals holding multiple perceptions of time.

For employees, the organizational perception of time directly translates to a socially constructed perception of time within organizations (McGrath & Rotchford, 1983). It can be further construed that, since the organizations can provide order and structure to our lives (Moore, 1963) this gives a sense of security, predictability and reasons for individuals to heed the organizational perception of time (Denhardt, 1981). Hall (1983) further states that countries and cultures hold their own type of perception of time but similarities can be found in clusters, for example in northern Europe where the general perception is characterized by a high level of organization of time, treating time as a valuable commodity, a perception of time that strongly resembles the objective time found in companies.

Given the spillover effects between situational and dispositional, on an individual level, as well as between society and organization and vice versa, a strong distinction of what type of perception is influenced by what factor or entity is hard to make. This calls for a nuanced measurement of the perception of time, even within organizations.

To fully capture the perception of time in this research, three major dimensions are used to outline the concept of time in relation to innovative behaviour:

- Time management: pertains to the behaviour of planning and organizing time;
- Temporal sphere: refers to the cognitive depth and orientation of past and future time;
- Perceived value of time: the individual perspective of worth and admiration of time.

These three dimensions will be further explained in the next chapter.

2.4.1 Perception of Time and Innovative Behaviour

Here detailed prior research on the role different time perceptions play on the individual innovative behaviour will be presented.

Time Management

Time management "relate to individual attitudes towards the planning and scheduling of daily activities" (Usunier and Valette-Florence, 2007, p.339). In other words, a perception where time is managed monochronically, organizing tasks one at the time in an efficient manner or polychronically, where a more flexible relation to planning time is expressed (Hall, 1983; Bluedorn et al., 1992).

Furthermore, given that organizations hold a predominant single perception of time (Orlikowski & Yates, 2002; Araujo & Easton, 2012), time management also encompasses the individual ability to converge with the organizational time norms, as this ensures continued membership of the organization and a positive social standing among colleagues (Slocombe & Bluedorn, 1999), despite that putting a high emphasis on adapting to organizational rules has shown to hamper innovative behaviours (Mirow et al., 2009).

Studies on time management present a clear dilemma on the role that planning plays on creativity and innovative behaviour. On one side researchers such as Sternberg (2005), George & Zhou (2001), Zampetakis et al. (2009) and Montani et al. (2014) argue for a positive relation between time organization and creativity as it inhibits innovative behaviour when high conscientiousness is required. On the other hand, studies conducted by authors like Batey & Furnham (2006), Furnham et al. (2006), Wolfradt & Pretz (2001), show a clear negative relation of innovative behaviour with respect to time planning. In relation to the dimension of championing of innovative behaviour, Chakrabarti (1974) states that a champion is "unsystematic and non-routine" (Chakrabarti, 1974, p. 62), implying a negative influence of time planning to this dimension of innovative behaviour. Furthermore, Bluedorn (2015) argues for a correlation between creativity and polychronicity, underlining the possible diverging effects of time planning in regard to the concept of innovative behaviour. Thus, it is important to consider the work from Feist (1998) where a clear distinction between innovative behaviour in the scientific field and the artistic creativity would support the difference in findings and the opposite role of time planning. These opposing views are also found in relation to congruence between individual and organization. Noefer et al. (2009) found time pressure positively influencing idea generation at work. Whereas Runco (2004) found a negative correlation between time pressure and novelty of ideas, and on the element of application. Kontoghiores, Awbrey, & Feurig, (2005) concluded positive correlations between time pressure and idea implementation.

Moreover, a recent study from Amabile et al. (2002) on time pressure and creativity creates a unification point for the two opposing views. In fact, time pressure, as the impositions of deadlines by time planning, can indeed increase individual performance (Kelly & Karau, 1993, 1999) and enhance work efficiency in standardised tasks but it would likely inhibit individual innovative behaviour. Time pressure in itself Amabile et al. (1996) argue is an effect of a perceived overwhelming workload. This type of pressure is more commonly felt if time is perceived monochronically, as Bluedorn et al. (1992) describes a traditional monochronic organization where "delegated tasks may overwhelm the constantly inundated subordinate, especially if the subordinate has a relatively monochronic orientation too" (Bluedorn et al., 1992, p. 24). A polychronic perception, on the other hand, would result in a focus on relations rather than tasks, thus a lower priority on scheduling, if even scheduling tasks occur at all (Bluedorn et al., 1992). These statements are in line with El Gedi´s (2017) research on employees' perception of organizational climate in Egypt, where work flexibility and polychronicity play a role in stimulating employees innovative ability. Thus:

H1) A perception of time resulting in a monochronic structuring of time and tasks at work will negatively influence innovative behaviour

(Null Hypothesis: *A perception of time resulting in a monochronic structuring of time and tasks at work will positively influence innovative behaviour)*

Temporal Sphere

Temporal orientation can be thought of as a preference to focus to the past, present or the future (Nuttin, 1985), defined by Settle et al. (1978) as *"tendency to recollect, to sense, to project, or to spread human consciousness across the time spectrum"* (Settle et al., 1978, p. 315). On a managerial level in a corporate setting, organisations with future-oriented leaders has shown to have higher levels of innovativeness (Yadav et al., 2007). Similar findings were reported by Liao (2016) in a study of 219 companies where long term-orientation was positively correlated to eco friendly and green innovation products and processes. This notion is further supported by the highly cited work by Zahra & Covin (1995) in corporate entrepreneurship, stating "managers should adopt a long-term perspective in developing, managing, and evaluating CE." (Zahra and Covin, 1995, p. 55), (CE = corporate entrepreneurship, authors note).

As recognizing opportunities and applying new knowledge is a main component of innovative behaviour (de Jong & Den Hartog, 2007; Uhl-Bien et al., 2007), March & Levinthal (1993) argue "the time between the anticipation of a problem and its arrival may not be adequate for an organization to identify and develop the knowledge". For employees in their search for new opportunities and knowledge, Nerkar (2003) states searching a longer timescape, both to the past and the present, develops new pathways for finding and creating new knowledge, thus opening up new possibilities for innovation. Bluedorn (2002) defines the length of the timescape as temporal depth, "temporal distances into the past and future that individuals and collectivities typically consider when contemplating events that have happened, may have happened, or may happen" (Bluedorn, 2002, p. 114). Both Bluedorn (2002) and Nadkarni et al. (2016) posit temporal depth to the past captures learning, and temporal depth to the future ensures vision and the ability to recognize patterns, thus together forming vital elements to innovative behaviour (Mumford and Gustafson, 1988). In relation to opportunity exploration, Dew (2009) specifically points to serendipity and prior knowledge as key in the search process of new opportunities. Thus, drawing from past experience and applying this information in the process of recognizing opportunities and its future value-enhancing potential, becomes a cornerstone in generating new ideas (Shane, 2000; Amabile, 1983).

Trust has also shown to positively influence innovative behaviour (e.g. Clegg et al., 2002). Carmeli & Spreitzer (2009), using the definition of trust as "one's expectations, assumptions, or beliefs about the likelihood that another's future actions will be beneficial, favorable, or at least not detrimental to one's interests" (Robinson, 1996, p. 576), proved that trust positively influences innovative behaviour. Thus, implying that a future orientation positively influences innovative behaviour. Moreover, a strong future temporal orientation has been linked to optimism and hope (Kluckhohn and Strodtbeck, 1961), which would coincide with a higher propensity to be creative in the workplace (Tavares, 2016). Summing up these statements, the following hypothesis is developed:

H2) A future temporal orientation positively influences innovative behaviour

(Null hypothesis: A future temporal orientation negatively influences innovative behaviour)

Perceived Value of Time

In addition to merely objectively looking to the future, the past or the present, individuals put a subjective psychological value towards temporal orientations, which is accompanied by a feeling that might be optimistic or pessimistic (Usunier & Valette-Florence, 1994). A low perceived value of time is consistent with a sense of discomfort for the past, the future and a sense of hopelessness, being unable to cope with and control present time in whatever way it may present (Bond & Feather, 1988). For employees, this can be experienced in the organization, Usunier & Valette-Florence (2007) describes this as time anxiety "experiencing time in the organization of their activities, individuals may experience adjustment problems and feel anxious." (Usunier & Valette-Florence, 2007, p. 340).

Carmeli et al. (2006) found that "the management of essential, sometimes unpleasant, behaviours" (Carmeli et al., 2006, p. 77) positively influence innovative behaviour among employees.

In contrast to time anxiety and pessimism, Ng & Lucianetti (2016) argues that "increased confidence in one's capacity to change is likely to promote increased idea implementation" (Ng & Lucianetti, 2016, p. 16). This notion is further supported by Ettlie & O´Keefe (1982) proving that having a positive inclination towards change correlated to an innovative attitude. Moreover, both optimism (Hsu et al., 2011), a positive attitude (Li & Wu, 2011) as well as self-confidence (Subotic et al., 2018; Oldham & Cummings, 1996) has shown to have a positive effect on innovative behaviour. These findings are in line with Przepiorka (2016) who identified entrepreneurs as perceiving their present as less fatalistic compared to non-entrepreneurs.

Thus, according to Han & Yang (2011), psychological capital of the employees will support innovative behaviour. More specifically Sweetman et al. (2010) identified a strong positive relation within innovative behaviour and an optimistic attitude towards the usefulness of time and innovation. Personal traits such as willpower, hopefulness, determination allow for employees to face uncertainty and exploit their innovative capabilities (Sweetman, et al., 2010). This type of tenacity refers to attitudes of perseverance, Settle et al. (1978) defines this perception of time as “able to delay gratification for long periods of time while pursuing some far-distant goal” (Settle et al., 1978, p. 316).

Chen & Nadkarni (2017) demonstrated that CEO’s that “strive for timely completion of all scheduled activities” (Chen & Nadkarni, 2017, p. 35) showed higher levels of corporate entrepreneurship. Temporal persistence implies that there is a value judgement on the reachability of a goal, therefore scoring high on temporal persistence, a predictor of motivation (Usunier & Valette-Florence, 2007) comes as no surprise. Montani et al. (2015) concluded that an ability to perceive future beneficial outcomes and improvements of one's work led employees to foresee opportunities and enact in innovative behaviour. Research by Darini et al. (2011) using the three items sub dimension of tenacity from the Time Styles Scale by Usunier & Valette-Florence (2007) showed a positive correlation between tenacity and coming up with useful and novel solutions. Similar findings were reported by Zampetakis et al. (2009) who identified a clear positive relation of creativity with respect to tenacity. Thus:

H3) A perception of time indicating temporal persistence will positively influence innovative behaviour

(Null hypothesis: A perception of time indicating temporal persistence will negatively influence innovative behaviour)

Considering the reasoning between optimism, hope and a future temporal orientation given by e.g. Kluckhohn & Strodtbeck (1961), a deduction can be made that there is an individual value judgement made towards time and temporal orientations to both the past and the future (Bond & Feather, 1988). Thus, it can be presumed that interrelations between the two dimensions temporal sphere and perceived value of time explained above exists.

As theory (e.g Nerkar, 2003; Dew, 2009; Amabile, 1983) insinuates looking to the past might be beneficial to innovative behaviour, a negative attitude coupled with looking to the past can express a contrasting result (Shipp et al., 2009). Thus, this study finds it interesting to explore this rather novel hypothesis to test if this relation proves true. Thus, it is further hypothesized that:

H4) A hopeless temporal orientation of the past negatively influences innovative behaviour

(Null hypothesis: A hopeless temporal orientation of the past positively influences innovative behaviour)

Chapter 3: Methodology

This chapter will chronicle how the research of this study has been undertaken and why certain methods have been chosen. In addition, techniques and procedures for collecting and analysing data is presented, leading to the outcome of findings displayed in the next chapter.

3.1 Research Approach

The following choices have been made on the basis of the level of analysis, the desired research design and external and internal limitations, as the nature of the research topic allows per se the application of various research approaches.

The research in this study, based on the principle of deductivism with influences of induction, makes use of the epistemological position knowns as positivism. This enables to generate and test hypotheses that provide information for further theory development (Bryman & Bell, 2011). Given the key role that the subjective perception of the variable time plays in this research it could be argued that interpretivism would be the best epistemological position. However, the focus of the research is not the empathic understanding of the human behaviour but the objective analysis of human perceptions to identify their effect on innovative behaviour quantitatively by applying methods from the natural sciences (Bryman & Bell, 2011).

Moreover, the effect of perception on individual behaviour could be analysed from an ontological position of both constructivism as well as objectivism. "The central point of orientation here is the question of whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors." (Bryman & Bell, 2011, p. 20). If from one side constructivism would allow for a deep understanding of the phenomena as perceived by individuals, on the other hand the high context dependencies of the variables linked tight the choice of the ontological position to the research design (Bryman & Bell, 2011).

Thus, based on the formulation of the research question and the role that the context plays, the ontological position known as objectivism has been used. In fact, peculiarities of the organization are viewed as objective social entities that have an effect on individuals (Bryman & Bell, 2011).

3.2 Research Strategy and Design

As previously stated, based on the research topic both quantitative and qualitative methods would be suited. Given the existing literature and research on the considered variables, a quantitative strategy has been implemented. Payne & Payne (2004, p.180) stated that, "Quantitative methods (normally using deductive logic) seek regularities in human lives, by separating the social world into empirical components called variables which can be represented numerically as frequencies or rate, whose associations with each other can be explored by statistical techniques and accessed through researcher-introduced stimuli and systematic measurement." In fact, both time perception and innovative behaviour have established reliable measurement scales. This allowed to quantitatively map and analyse results rather than just identify and interpret the value people attribute to them (Van Dalen, 1979).

These measurable variables allow to test hypotheses based on theoretical consideration, and for this reason a deductive process will be used (Bryman & Bell, 2011). Thus, in the next section detailed explanations and specifics of the operational terms and how data can be collected in relation to the concepts will be presented. In order to develop hypotheses, the first step was an iterative inductive process weaving back and forth between qualitative data from the sample company and theory, as opposed to the second step, where a stricter deductive process paired with a quantitative strategy was employed (Bryman & Bell, 2011). This process, paired with existing literature, lead to the discovery of problem areas specific to the sample and the development of a research that could contribute to the existing knowledge as well as have practical value for organizations and management

3.2.1 Cross-Sectional Design

Guided by the purpose of the research, the study needs a design that allows for no to little manipulation from the researchers, enabling a more objective representation of the current environment (Bryman & Bell, 2011). Thus, the research has be conducted through a cross-sectional design, where data from a Swedish consulting company has been collected at a single point in time through an electronic survey. This design, matched with a quantitative method, provides the advantage of a benchmark. At the same time limitations for “patterns of associations” needs to be taken into account when developing the survey, but especially when drawing conclusions from the analysis (Bryman & Bell, 2011). Thus, casual influences have been partially contained by the introduction of controlling variables, in order to diminish the uncertainty of the relationship of the analysed variables. Given the limitations imposed on the study, for future replications an experimental design would be suggested as it would increase and solidify the internal validity of the identified relationships. Moreover, it would also be advised to pair the quantitative approach with a more inductive and qualitative design in order to not only identify relationship but to deeper understand the reasons behind those relationships through triangulation and decrease the limitations of applying only one method (Bryman & Bell, 2011). Moreover, in order to avoid additional influences, the study will be conducted by external researchers. On the other hand, a mixed team of external as well as special internal researchers would be recommended as divergent views would be paired with knowledge leading to a solid identification of external factors that could influence the researched relationship (Sekaran and Bougie, 2016).

3.2.2 Research Process

The research process follows the hypothetico-deductive method which through deductive reasoning allows for the identification of a problem area and the testing of theory. The research process is therefore, following the method from Pooper (2002), divided in seven steps. The first three steps (identify the problem area, define a problem statement and develop hypotheses) have been carried out by iterating between theory and data. In practice the data have been collected from the case company, which allowed for the analysis of documents, observations as well as unstructured interviews. The results of the first phase lead to the next three steps, all characterized by a quantitative and deductive approach: determining the measurements, collecting the data through a survey and subsequent analysis. Nevertheless, for transparency it is important to show, as will be explained in later paragraphs, that determining the scales to assess the variables also required a certain level of iteration between the development of the scales and early testing for improvements, thus making also use of an inductive approach.

To conclude, the research is conducted mainly through a deductive research process with the purpose of testing hypotheses and identify relationships in order to provide new knowledge and give a new benchmark for the management. Nonetheless, the research also leverages the knowledge and presence of external researchers through the supportive use of inductive reasoning.

3.3 Data Collection Method

3.3.1 Population of the Study and Sample

A population is “the group of units about which we want to make judgments” (Mooi and Sarstedt, 2011, p. 37). From the population a sample is drawn to try to generate a representative sample, a representative sample will allow the research to be generalized to the population from which it was extracted from (Bryman & Bell, 2011). As this study focus on non-managerial employees in consulting companies, consideration has been taken when defining first the company criteria. Wiklund & Shepherd (2005) argues company characteristics differs based on country, size, age and industry. Given that the research is conducted in Sweden and in a single company in the civil engineering industry, the population is narrowed down to large-size Swedish consultancy companies active in civil engineering.

Looking further into the population and the characteristics of the employees, Statistics Sweden (2010; 2013) reveals that of all currently employed engineers in Sweden with a five-year civil engineer degree (equivalent to a Master degree), 78% are male. Agewise, 60% of all civil engineers with a Master degree are below the age of 44. Females are more common among younger civil engineers and make up roughly one third of all civil engineers in the age group 20 - 34. As for education level, of all employees reported working in the field of civil engineering, 66% reported holding a Bachelor or Master degree, dispersed by 26% holding a Bachelor degree and 40% holding a Master degree. The characteristics of the sample of employees in this study will be cross referenced with aforementioned statistics for the industry to determine to which level the results are generalizable to the study population.

Sampling Procedure and Resulting Sample

Based on the identified population and its characteristics, a sample has been selected. Here the sampling procedure will be made explicit to allow for replicability together with the procedure used to select the sample from the population described above. The main concern of the process is how well does the sample represent the population, as this is one of the sources of random error which research design must minimize in order to allow for generalizability and/or external validity of the study.

Due to the limited access to data and time constraints, a non-probability sample has been selected. This practice is very prominent in business and management research (Bryman 1989a: 113–14). Overall it is important to consider, as stated by Bryman & Bell (2011), that the findings can only be generalized to the population from which they have been sampled, as a frequent "criticism made in relation to research on employee relates to the extent to which it can be assumed to be generalizable beyond the confines of the national culture and company/ies on which the study is based" (Bryman & Bell, 2011, p.195).

The sample resulted in a group of 500 consultants from offices in the south of Sweden at the identified company. Of the 500 in the sample, 159 surveys were collected leading to a response rate of 31,8%. For details on the resulting sample see 4.1.

3.3.2 Unstructured Interviews

To identify a broad problem area and initiate the research process, unstructured interviews were conducted. This data collection method is characterized by high flexibility and perfectly supports exploration phases in research (Bryman & Bell, 2011).

Eleven unstructured interviews were conducted in two phases: in the first round, with three employees from different organizational rankings to explore common issues and possible level of analysis; and in second subsequent round nine employees from different departments that had been randomly selected.

The interviews have been recorded and transcribed to increase transparency and validity of the study (Bryman & Bell, 2011). The reasons behind the transcription relay on the need to avoid for the researchers to go native or excessively bias the understanding of the interviews with their personal backgrounds. Thus, documenting the answers from the employees allowed for a more coherent connection of the dots and further analysis.

Moreover, the unstructured interviews were paired with observations and document analysis in order to increase the level of understanding of the environment.

Overall the analysis of the data led to a unanimous agreement that time posit an issue for the company, which for employees was translated to influencing how they organise their work-life.

A current limitation was the location, since the conducted interviews were exclusively held in Malmö, Sweden. It could nevertheless be argued that the employees in the south region are a controlled sample population of the whole company. Thus, it can be assumed that the problems connected to elements such as time and innovation are shared company wide.

3.3.3 Online Survey

The second step and the main source of data collection is a self-completion survey**.** This data collection method allows to access groups that would be difficult to reach otherwise. Moreover, especially given the peculiarity of the sample and their value of time, a survey allows for the respondents to participate in the research at their convenience. Internal limitations can also be diminished through this method such as costs of travelling to the different offices, time and energy.

On the other hand, disadvantages of the following data collection method cannot be ignored, especially the possibility of self selection and low response rate (Scheaffer & Richard, 2012). Actions to counterbalance the low response rate have been applied, from transparency on the length of the survey, benefits of participating in the survey, follow up emails to respondents as well as support from the managers as sponsors to distribute the survey.

Survey Development, Instrumentation, Validity and Reliability

Based on the peculiarity of self completion questionnaires, the absence of the researcher during the use of the instrument, elements such as the type of questions, length and design were taken into consideration when developing the survey (Bryman & Bell, 2011).

To cater for this, a set of closed questions were identified as optimal, allowing for fast replies from the respondents and an enhanced comparability of the answers.

Moreover, an “easy-to-follow designs to minimize the risk that the respondent will fail to follow filter questions or will inadvertently omit a question” (Bryman & Bell, 2011, p. 232) was created, keeping in mind the order of the questions as well as avoiding displaying the whole questionnaire before completion (Bryman & Bell, 2011). This last aspect might appear as irrelevant at first but if the questions are all accessible none of the questions is truly independent (Bryman & Bell, 2011). For this reason, the survey has been divided into 3 pages corresponding to the different topics: controlling variables, time and lastly innovative behaviour.

Moreover, it is important to note that the survey has been pre-tested in order to minimise misunderstanding, as well as to ensure the functioning of the survey server, given the data collection is conducted online.

To go more in detail on the specifics of the questions, as suggested by Bryman & Bell (2011) existing questions developed by other authors have been employed, allowing for greater validity and reliability testing as well as further identify if changes from the previous studies occurred.

The following are the instruments used to collect data for this study and since the scales were adapted from existing instrument a summary of the procedure used in its construction and its measurement properties will be shown.

Moreover, the validity of the scales will be described as well as the eventual need for an internal revalidation process. Finally, the reliability of the scales will be presented. This section is important both for transparency and further replications as well as internal reduction of random error through the use of scales with high reliability (Nenty, 2009). Furthermore, both scales rely on a Likert scale and has been pre-coded making the processing of data and analysis more immediate.

The variable time has been analysed through the “Time Styles Scale” by Usunier & Valette-Florence (2007), the scale and items have been used in innovation and creativity studies by Lee et al. (2016) and in part by Zampetakis et al. (2010), Lerner et al., (2007), Darini et al. (2011) as well as in business research by Kessous (2015) and Elmezni & Gharbi (2010).

Usunier & Valette-Florence (2007) provides a scale of measurements which “are drawn from interdisciplinary research on time” (Usunier & Valette-Florence, 2007, p. 357), allowing for a rich and nuanced measurement of individuals perception of time. The variables have been assessed in a multidimensional construct balanced between “the individual and the environment and framed by the dominant time patterns in a given society” (Usunier & Valette-Florence, 2007, p. 338).

Originally composed of four main dimensions and eighth subdimensions (see Table 1), the scale was for measurement purposes of this research reorganized into the four dimensions: time management, temporal sphere and perceived value of time and a fourth dimension being a blend of temporal sphere and perceived value of time (see Table 2). Conceptually the four dimensions are all encompassed by the same three dimensions found in chapter two, namely: time management, temporal sphere and perceived value of time. The specifics of the creation of the new scale and the data justifying the restructuring is outlined in detail in 4.3.

The original scale from Usunier & Valette-Florence (2007) was validated through fit indices like Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), and Adjusted Goodness of Fit Index (AGFI). This data has been proven valuable when comparing the restructured scale with the original values, given that tests for reliability and validity have been performed for the new scale.

By grounding the new scale on the work by Usunier & Valette-Florence (2007) 15 years of research in the perception of time is leveraged in the construction of a scale suitable for this research setting, ensuring reliability and validity throughout time. This time span includes studies in different national and cultural contexts, ensuring that the items and dimensions are replicable. This scale is, therefore, fit as a foundation for our study, supporting both English and Swedish, with a total of 29 questions in both languages (Usunier & Valette-Florence, 2007).

Dimensions	Sub-dimension (label in bold)	Cronbach
Linearity and economicity of time	1. Preference for organized/**economic time** 2.Preference for non-linear/**non-organized time**	0.83–0.88 0.61–0.68
Temporal orientations	3. **Orientation towards the past** 4. **Orientation towards the future**	0.79–0.82 0.74–0.86
Obedience to time	5. **Time submissiveness** (mastery of time) 6. **Time anxiety** (perceived usefulness of time)	0.70–0.74 0.69–0.78
Temporal persistence	7. **Tenacity** 8. **Preference for quick return**	0.70–0.80 0.61–0.82

Table 1: Usunier and Valette-Florence (2007, p. 346)

Old Sub-dimension	**New Dimension**	**Cronbach Alpha**
Economic time Non-organized time Time submissiveness	Time management	.77
Orientation towards the future	Temporal sphere	.89
Tenacity Preference for quick return	Perceived value of time	.74
Time anxiety Orientation towards the past	Temporal sphere-perceived value of time	.86

Table 2: Restructuring of time dimensions

On the other end, innovative behaviour will be analysed through the scale of Kleysen & Street (2001) compromised of 14 questions in the five dimensions: opportunity exploration, generativity, formative investigation, championing and application. The reliability alpha measured the intercorrelation of all the items of the five dimensions at 0.945.

The multidimensional approach by Kleysen & Street (2001) ensures a deeper analysis of the concept of innovative behaviour, compared to a unidimensional scale. Given that innovative behaviour captures both creativity and innovation, an analysis of how time influences the specific dimensions can be performed. This approach gives transparency and increased understanding of the assumed differing impact a certain time dimension has on the five innovative behaviour dimensions. Moreover, the high reliability of all the dimensions combined, measuring innovative behaviour as one concept, ensures reliability and rigour to the research process.

Furthermore, it is important to notice that for the questionnaire, all the items have been placed on the same page as suggested by Kleysen & Street (2001), instead of the random distribution within sections as initially used by the authors. The scale has been used in studies of innovative behaviour by among others De Jong & Den Hartog (2007), Tuominen & Toivonen (2011) and Xerri (2012).

Finally, a set of controlling variables have been inserted based on the used instruments and the context of the study. Usunier & Valette-Florence (2007) in their study provide a clear correlation between the perception of time with age and gender of the respondents. Moreover, nationality and culture have been shown to influence the paradigm view of individuals: in particularly for this study acceptance of risk taking and failure. Therefore, variables pertaining to years spent in Sweden and nationality will be included in this study.

3.3.4 Ethical Considerations

Ethical considerations have been implemented and carried out throughout the research given the level of analysis and the variables essence. Thus, the considerations mainly relate to the effect that the research could have on their perceptions, behaviours and ultimately their work life.

Overall the ethical issues presented here are the representation of the four main categories of ethics by Diener & Crandall (1980):

- Harm to participants: It is key that the participation in the research will not affect the employee's ability to meet the department goals and requirements. Therefore, not only anonymity will be granted but permission from the head of each department will be requested before approaching the selected employees for the interviews. Similar attention will be placed when constructing the survey;
- Deception: Given the sensibility of the topic, interviewee´s will be informed of the general scope of the research but a detailed description will not be give until the end of the data collection to avoid biases. As for the survey, as explained previously the design and informations available will be so that they do not lead the employees;
- Informed consent: Employees voluntarily take part in the survey and are allowed to leave the study at any point in time given possible implications to their daily tasks; They are also informed of the use of the data collected and the diverse data collection methods used;
- Invasion of privacy: all data will be collected and processed in total anonymity given the sensibility of the data. This is done in order to avoid the invasion of the employees' privacy as well as to guarantee free and honest replies.

3.4 Data Analysis

As underlined by Bryman & Bell (2011), it is fundamental to be aware of the techniques that will be used when selecting and preparing the data collection instrument, in this research the online survey. This is relevant as different "techniques have to be appropriately matched to the types of variables that you have created through your research" (Bryman & Bell, 2011, p. 334) as well as characteristics of the sample that can have implications on the data analysis method (Bryman & Bell, 2011).

Based on the nature of the study and the research question, SPSS, a computer software used to analyse statistical data, allows for a systematic analysis of the data collected (Mooi & Sarstedt, 2011).

3.4.1 Data Entry

Generally, after the data collection, the coding of the entry is performed by assigning value to each data. In this study, data were already coded using the properties of SUNET Survey, the digital instrument used to administer the survey.

For this study, data were exported from the questionnaire tool SUNET Survey as a SPSS file. The dataset was then imported into the software SPSS version 24. The compatibility between the SUNET Survey and SPSS is well documented, which led to minimizing the risk of losing or wrongfully entering the data (Bryman & Bell, 2011). Good practice when entering data is to ensure that the dataset is intact, and no data points are lost (Mooi and Sarstedt, 2011). Therefore, after importing data in SPSS, the dataset was cross referenced between the data collection questionnaire tool and the statistical analysis software SPSS. Bryman & Bell (2011) posit "Multiple-indicator (or multiple-item) measures of concepts, like Likert scales [….] produce, strictly speaking, ordinal variables" (Bryman & Bell, 2011, p. 342), thus items from those scales were coded as ordinal values in SPSS. Variables were further named to match the question number and the dimension of the scale, see Appendix 2 for the details on the nomenclature.

3.4.2 Univariate Analysis

A univariate analysis gives a detailed look at the data since it enables "the analysis of one variable at a time" (Bryman & Bell, 2011, p. 342). Bryman & Bell (2011) points to the different classifications of variables and advice to be well versed in how to treat these in order to analyse data correctly. Thus, a thorough check on an individual variable level needs to be performed to identify any errors. Careful consideration was also taken when checking the reverse-scored questions and their respective values in the dataset. Further, tables with descriptive statistics were produced including minimum, maximum, mean, standard deviation, skewness and histograms for visually checking the distribution of each variable.

Frequency tables and boxplots listing all variables and their respective statistics were used to compare and look for possible outliers that would require an explanation or action from the researchers.

3.4.3 Correlation Items

Consequently, given the ordinal nature of the variables, a Spearman Correlation was performed to visualise the relation between variables and get an idea of the possible aggregate dimensions. Spearman Correlation doesn't require continuous level data as Pearson's Bivariate Correlation does, as ranks are used over variables distribution. The significance level was set at 0.05 (2-tailed).

3.4.4 Factor Analysis

The reasoning behind to carry out a factor analysis is to "establish whether the dimensions of a measure that they expect to exist can be confirmed" (Bryman & Bell, 2011, p. 170). A principal factor analysis can be used to explore, find and link together variables that are not obviously related but, in the analysis, shows signs of describing the same phenomena (Mooi and Sarstedt, 2011). Multiple items measuring a dimension are computed into new variables representing the dimensions (Bryman & Bell, 2011). Computing variables enable the researcher to reduce the data into fewer variables. The computing of variables includes a step of extracting factors based on convergence and goodness of fit, this aims to "reproduce the data in the best possible way" (Mooi & Sarstedt, 2011, p. 216).

To run exploratory factor analysis two main considerations needed to be made beforehand: relationship between variables (here tested with Spearman Correlation) and the ratio sample/variables. Although for factor analysis the sample size is less crucial, effects of it could still be seen in the commonalities of the variables.

The Kaiser-Meyer-Olkin (KMO) and the Bartlett test have been run. KMO should have a value greater than 0.7 while it is unacceptable if below 0.5. The Bartlett test should be significant at $p<0.5$ creating foundations to run the complete factor analysis.

To create new dimensions the Eigenvalues have been the first point of reference, with a criterion of 1.0+ variance explained. Secondly, an orthogonal rotation with Varimax has been performed to identify the components of the new dimensions. Varimax was the selected rotation methodology as it allows to reduce problems of multicollinearity in regression analysis. An exclusion value was set at the standard |0.3| as factor loading below 0.3 are considered low (and high above |0.4|).

For studies where the measurements earlier have been used and established, Mooi & Sarstedt (2011) recommend performing a confirmatory factor analysis. The analysis provides detailed evidential insights to the validity and the variables interaction within already confirmed dimensions and scales.

A confirmatory factor analysis aims to test the replicability of earlier studies by applying the same dimensions and measurements. A key part of the factor analysis is the Kaiser-Meyer Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity, which "indicates whether the correlations between variables can be explained by the other variables in the dataset." (Mooi & Sarstedt, 2011, p. 207). The information derived from the factor analysis and the KMO test is also valuable when deciding how to test for reliability and compute variables. KMO values by Kaiser (1974) and the respective values and interpretation is presented in Table 3.

KMO/MSA value	Adequacy of the correlations
Below 0.50	Unacceptable
0.50–0.59	Miserable
0.60–0.69	Mediocre
0.70–0.79	Middling
0.80–0.89	Meritorious
0.90 and higher	Marvelous

Table 3, KMO Values (Kaiser, 1974)

3.4.5 Reliability

"Although analytically distinguishable, validity presumes reliability" (Bryman & Bell, 2011, p. 161). Reliability analyses if the measures of a concept are consistent, more specifically with internal reliability "the key issue is whether or not the indicators that make up the scale or index are consistent" (Bryman & Bell, 2011, p. 158).

Given the nature of the data as multiple-indicator measures, internal reliability needs to be tested to check for internal coherence. Cronbach's Alpha test will be used to measure the internal reliability with an alpha coefficient between 0 (no internal reliability) and 1 (perfect internal reliability). A value of 0.7 is considered as a rule of thumb to denote a satisfactory level of internal reliability in the business research field (Bryman and Bell, 2011), with some authors raising the value to 0.8

3.4.6 Computing Variables and Dimensions Descriptive Statistics

Once internal reliability and factor analysis have been performed the new dimensions have been created. Subsequently, descriptive statistics at the dimension level has been analysed.

Moreover, to be able to analyse the controlling effect in a multilinear regression analysis, dummy variables need to be created. Dummy variables are binary variables, that are created from categorical variables to better be able to analyse the effect within groups of variables (Mooi & Sarstedt, 2011). Dummy variables were created for all control variables that were not dichotomous and used in the hypotheses testing to control for Age, Gender, Years in the company and Level of education. For details see Appendix 2 for the resulted dimensions and Appendix 6 for the dimensions descriptive statistics.

3.4.7 Bivariate Correlation

Bivariate correlation is used to display and understand the relationship between two variables. A correlation coefficient value can tell how strongly associated two variables are to each other (Mooi & Sarstedt, 2011). Two of the most commonly used measures are Pearson's correlation coefficient and Spearman's correlations coefficient, with the latest recommended by Bryman and Bell (2011) when dealing with ordinal values. When measuring the correlation coefficient, a value between -1 and 1 is applied. A correlation of 1 indicates perfect positive correlation, -1 indicates a perfect negative correlation and a value of 0 reveals no correlation between the two variables (Mooi & Sarstedt, 2011).

The significance level was set at 0.05 (2-tailed). Although common thresholds in the scientific community for the P-value to claim statistical significance is 0.05 or 0.01, the value in itself is arbitrary (Mooi & Sarstedt, 2011).

3.4.8 Multilinear Regression Analysis

"Other than correlation analysis, which focuses on the strength of the relationship between two or more variables, regression analysis assumes a dependence or causal relationship between one or more independent and one dependent variable." (Statistics Solutions, n.d., p.146)

By performing a multilinear regression analysis the relation and strength between the independent variable and dependent variables can be measured. The analysis can include several independent variables, which “allows us to disentangle the relative effects on a dependent variable of two or more independent variables” (Allen, 1997, p. 4).

Based on the key required assumptions for multiple linear regression, tests for homoscedasticity, linearity, normality as well as multicollinearity were executed.
Homoscedasticity has been tested by plotting standardized residuals (ZRESID) versus predicted values (ZPRED) to identify the distribution of points with respect to the independent variables’ values. The problem of multicollinearity was partially accounted for when creating the dimensions with varimax rotation. It was nevertheless crosschecked by using the Variance Inflation Factor (VIF) values. The selected tolerance was that VIF>5 indicated a need for further analysis while VIF>10 a proof of multicollinearity. Linearity between variables was visually checked through scatter plots. Finally, normal distribution was tested through the Kolmogorov-ˇ-Smirnov goodness of fit test. The test required a p-value > 0.05 to support normality.

The method used for the multilinear regression analysis has been the default “Enter”, which forced all the variables into the model. The variables have been entered in two steps: 1° Step the control variables while on the 2° Step the independent variable has been added. Another possibility was to make use of the method “Stepwise” were variables would have been entered in the model following their explanatory power. Thus, considering the purpose for the research to identify, if any, the effect of time perception on innovative behaviour after controlling for age, gender, education and years in the company, the “Enter” method was the best fit.

Hypotheses were then rejected based on the p-value >0.05 and the F-value < critical f value.

Chapter 4: Findings

In the findings, descriptive statistics, correlations and factor analysis of the data collected through the online survey is objectively presented and a multilinear regression analysis is used to test the four hypotheses. The findings are then further discussed and reflected on in Chapter 5.

This chapter presents the quantitative results to test the following hypothesis:

> ***H1)*** *A perception of time resulting in a monochronic structuring of time and tasks at work will negatively influence innovative behaviour;*
>
> ***H2)*** *A future temporal orientation positively influences innovative behaviour;*
>
> ***H3)*** *A perception of time indicating temporal persistence will positively influence innovative behaviour;*
>
> ***H4)*** *A hopeless temporal orientation of the past negatively influences innovative behaviour;*

For details on the nomenclature of items and dimensions that will be used throughout the next chapters see Appendix 2.

4.1 Descriptive Statistics

This section present details of the descriptive analysis. The results of the mean, standard deviation and skewness are elaborated on. The frequencies, histograms and boxplots were used in the process to support these results. For details see Appendix 3.

The population of this study was Swedish civil engineering consultants in large-sized Swedish consulting companies. The sample was composed of 500 engineering consultants working in southern Sweden. Of the questionnaires emailed, 159 responses have been recorded, resulting in a 31.8% response rate.

A first data cleaning was performed according to the control variables position and nationality. Based on the aim of this study to understand the consultants perspective exclusively, 26 out of the 159 respondents have been excluded as their position was indicated as a manager or director. After cleaning for position, nationality was introduced as control variable: 84% of the sample indicated swedish nationality, with 7% Danish and 9% other countries. Differences between nationalities are not only clear in theory of time (e.g. Hall, 1983) but also the value distribution among the three groups differed significantly. For this reason, the researchers decided to drop responses of participants that were not from Sweden, as not enough representatives of the other categories allowed for effective control of the variables in later steps. Therefore, the final sample for the analysis resulted in 111 Swedish consultants.

The other control variables consisted of the gender, age, number of years at the company as well as the educational background. The gender was rather unequally distributed with 64% of respondents identifying as males, 35%, as females and 1% as others. The ages of the respondents were distributed from early 20s through late 60s with about 46% of consultants aged 25-34. The majority of the participants have worked within the company for less than 2 years, only 15% of participants have worked at the company for more than 10 years. Regarding the education, 85% of the consultants hold a university degree: A Bachelor's degree (37%), Master's degree (45%) or a PhD (4%).

Overall the sample can be described as homogeneous, characterised with a majority of males in their late 20s early 30s holding a university degree and working for the company for no more than 2 years. This and other limitations due to the sample need to be kept in mind as they could have implications on the final results. Information related to the established control variables have been collected about the original sample of 500 consultants to benchmark survey respondents to the overall sample. The results were helpful to confirm the homogeneity of the original sample, making the analysed sample representative. Nevertheless, due considerations will need to be made when drawing conclusions. Moreover, considering the forthcoming analysis, the following corresponding variables were used to measure and control for age, gender, years in the company and level of education.

Variable	Years in the company
YEARS1	0 - 2
YEARS2	3 - 5
YEARS3	6 - 10
YEARS4	11 - 15
YEARS5	16+

Variable	Level of education
EDU1	No high school
EDU2	High School
EDU3	Bachelor degree
EDU4	Master degree
EDU5	PhD

Variable	Age

Variable	Gender

AGE1	18 - 24
AGE2	25 - 34
AGE3	35 - 44
AGE4	45 - 54
AGE5	55 - 64

GENDER1	Male
GENDER2	Female
GENDER3	Other

Table 4, Control variables and corresponding measurement

Regarding the time and innovative behaviour dimensions descriptive statistics is of great use for a first general picture of all items and it suggests the need for a reanalysis of the reliability of the scales. Following is a discussion of the items by their original group dimensions:

Time

Variable name (number of variables)	Sub-dimension
TEC (4)	Economic time
TNO (3)	Non-organized time
TOP (4)	Orientation towards the past
TOF (4)	Orientation towards the future
TSB (4)	Time submissiveness
TAX (4)	Time anxiety
TEN (3)	Tenacity
TQR (3)	Preference for quick return

Table 5, Time dimensions and variable names

- *Economic time - TEC:* TEC1 clearly shows a different pattern than TEC2, TEC3 and TEC4. The latter three items show a stronger negative skewness than TEC1, as well as a higher mean and lower standard deviation. This is visually supported by a histogram;
- *Non-organized time - TNO:* The items show a consistent mean, standard deviation and positive skewness although the degree of the skewness ranges from -0.30 to -0.65;
- *Orientation towards the past - TOP:* The items all exhibit a positive skewness. The four dimensions can be grouped in two clusters, one at 0.4 and the other at 0.9 skewness. TOP1 shows a higher mean than the other three items, yet the value remains inside the range when considering the standard deviation;
- *Orientation towards the future - TOF:* All items are characterised by a mean of circa 3.3 with a standard deviation of around 1.1. The skewness for the items is negative yet TOF1 and TOF3 exhibit a moderate level at around -0.46, TOF2 and TOF4 are closer to a normal distribution with a negative skewness of -0.17;
- *Time submissiveness - TSB:* The four TSB-items overall exhibit the highest mean although three items (TSB1, TSB2, TSB4) are very consistent with a mean around 3.9, standard deviation above 1 and a negative skewness of -0.8/-1. TSB3 also shows a negative skewness yet more extreme (-1.9) than the other three items. The mean and standard deviation of TSB3 also differ with a mean of 4.5 and a lower standard deviation at 0.8. Thus, further attention will be placed on TSB3 when analysing the overall dimension;
- *Time anxiety - TAX:* These items overall present a lower mean (1.8/2.2) than the other items of the time scale. The standard deviation is around 1 and items exhibit a positive skewness in two clusters (0.5 and 0.8/1);
- *Tenacity - TEN:* The three items are very similar in mean (3.5) and standard deviation (0.9). While they all exhibit a negative skewness, TEN3 is more prominent than the other two items;
- *Preference for quick return - TQR:* Again the items all show similar means (2.9) and standard deviations (1). It is worth noting that the skewness in all cases is little yet for TQR1 is positive while for TQR2 and TQR3 it is slightly negative;

Innovative behaviour

Variable name (number of variables)	Dimension
IOX(3)	Opportunity exploration
IGE(2)	Generativity
IFI(3)	Formative investigation
ICH(3)	Championing
IAP(3)	Application
INBEH	All five dimensions combined

Table 6, Innovative behaviour dimensions and variable names

- *Opportunity exploration - IOX:* The three items show similar means and standard deviations as well as negative skewness, yet IOX3 exhibits a lower degree of skewness (-0.17) compared to the other two items (-0.3). Thus, increased attention will be placed on IOX3 when creating the dimension;
- *Generativity - IGE:* This group consists of two items only so comparisons or understanding of norms are difficult. The items show means of 3.5 and 3.9 and a standard deviation of 0.8/1. A larger gap can be identified when looking at the respective skewness: both are positive yet IGE1 -0.54 and IGE2 -0.23;
- *Formative investigation - IFI:* The items are consistent in mean (3.5), standard deviation (0.9) and negative skewness. On a minor scale IFI1 shifts more towards the right despite a slightly lower mean at the 0.1 digit;
- *Championing - ICH:* The three items exhibit a negative skewness with ICH3 shifting the most towards the right. Overall, considering their respective standard deviation, the values are consistent;
- *Application - IAP:* Looking at the mean, standard deviation, skewness and especially the histogram, IAP2 is the only item symmetrically distributed. On the other hand, IAP1 and IAP3 follow the distribution of the other items in the innovative behaviour group (negatively skewed, mean around 3.4 and standard deviation of 0.9).

4.2 Correlation Items

Correlation between items of the two scales has been tested and here some of the key findings are presented. For details, see Appendix 4.

All items in the innovative behaviour scales show a positive correlation ranging from 0.27 up to 0.69 significant at the 0.01 level (2-tailed). The average correlation between items is in the range of 0.5.

Regarding the time scale, it was found that items can be clustered in groups where there is a correlation of items within these groups while the different groups themselves are not intercorrelated. This finding suggests that the group dimensions need to be reassessed (example: TEC+TNO+TSB). Thus, a factor analysis is performed to identify the new dimensions.

Worth noting is also that TSB-TAX items, originally paired as one dimension, don't show significant correlations with this data. Overall there are some strong correlations within items' original dimensions, one exception being TEC1 suggesting a need to more deeply examine the items composing the dimensions.

4.3 Factor Analysis and Reliability

4.3.1 Factor Analysis - Group Items

Once the single items are analysed, the next step is to group them into dimensions. Preliminary dimensions where already established by the scales used in the study, but given the peculiarities of the sample and items identified, a more thorough factor analysis was performed. This is supported also by the explicit suggestion of Usunier & Valette-Florence (2007) to retest the scale if applied in different contexts as well as retest again after 10 years. Moreover, all items have been analysed and rotated with varimax after extraction to ensure the factors to be orthogonal and eliminate problems of multicollinearity in regression analysis.

The scale resulted in a KMO of 0.709, which can be considered satisfactory with the criteria of 0.5 as the minimum acceptable value. The Bartlett's test is significant at a 99.9% level. Based on the Eigenvalue being larger than 1, 69% of the variance is explained by 10 factors (with greater impact from the first 5). Regarding communalities of the items, only TSB2 exhibits a lower variance (0.472) than the rule of thumb set at greater than 0.5. Despite this and given the relevance of the item for the research question and hypotheses testing, TSB2 will not be deleted with solely the argument of a lower communality.

The most important finding related to the construction of new dimensions becomes apparent in the rotated component matrix. For reasons of transparency, in this particular analysis the value of extraction has been set to 0.3, thus, items with a lower value have not been considered (Comrey & Lee, 1992). Moreover, the new components have been first extracted based on the Eigenvalue being larger than 1 resulting in 10 components. Consequently looking at the rotated components, a fixed number of factors have been established till an optimal solution for the study has been identified. This resulted in 5 dimensions, each containing at least 3 items. For details see Appendix 5.

It is important to disclose that for the innovative behavior scale, all items have been paired into one component. Following are the results regarding the time dimensions:

- TNO items should be reversed and combined with TEC and TSB. This is aligned with the theoretical considerations made and hypothesis developed in Chapter 2;
- TAX and TOP despite being originally developed as two separate dimensions could be argued together as items representing the degree to which the respondent is affected by the past and influencing the desire for a future orientation;
- TQR and TEN: as for the original scale, the two items are grouped together as representative of temporal persistence;
- TOF items are a dimension per se, although some reverse elements of TSB could be paired with the group.

A summary of the sub-dimensions composing the newly formed dimensions thus results in:

Composing sub-dimensions	**New dimensions**
TNO(Reversed), TEC, TSB	TMA
TAX, TOP	TPX
TQR, TEN	TEQ

TOF	TOF

Table 7, Old time sub-dimensions and corresponding new dimensions

The reliability of the whole scale have been tested resulting on a value of 0.772. Thus, once a clear division has been tested, further confirmatory factor analysis and reliability testing are performed on the two scales separately and consequently for each dimension individually. In the next paragraph key findings will be presented, details on the values can be found in Appendix 5.

4.3.2 Factor Analysis & Reliability - Dimensions

Time

Time dimensions have been found through confirmatory factor analysis to have a KMO that is over the 0.5 validity mark and the Bartlett's test significant at the 99.9% level. Dimensions scored as high as 0.835 (TPX) and as low as 0.653 (TMA). Regarding reliability, TOF has the highest Cronbach's alpha at 0.899 when dropping TOF3, while (TEQ) has the lowest alpha (0.745) before dropping item TEN3 (0.755). Also for TMA dropping TSB3 would increase the alpha. In this study the internal consistency exhibits a Cronbach's alpha of 0.695.

Innovative Behaviour

Testing the scale of the innovative behaviour by Kleysen and Street (2001), the analyses gave strong indications for a single dimension with a Cronbach's alpha of 0.931 without benefits from dropping items, as well as an excellent KMO of 0.903 at a 99.9% significance level. Moreover, from the factor analysis one single factor already explained more than 50% of the variance. Having considered the findings together with the aim of the research, detailed analysis of the original single dimensions will be performed to identify specific influence of time on part of the innovative behaviour. This will in turn allow for more detailed discussion and tailored managerial implications.

Thus, all dimensions except IGE exhibit a Cronbach's alpha around 0.8 and KMO of 0.68 at 99.9% significance level. Of those, dropping IOX is suggested as it would bring the alpha from 0.796 to 0.814 with no effect on the alpha of INBEH. Furthermore, dropping IFI would give a slightly higher alpha but as it would affect also INBEH, the drop is not performed. It is worth noting that IAP has the highest alpha (0.857) and a KMO value at 0.724 (99.9% Bartlett's test). On the other hand of the spectrum, IGE is the most problematic of the measurement and this is mostly due to the composition being made up of only two items. Thus, despite a very low Cronbach's alpha (0.584) and a mediocre KMO value at 0.5 (99.9% Bartlett's test), no changes can be implemented due to insufficient items. This also explains the lower communality value of IGEI in the factor analysis for INBEH as well as its relatively low relation to the other items and weight in the scale. It is nevertheless important to remember the mediocre validity of the IGE dimensions and its limitations when analysing further tests and discussing them.

Descriptive Statistics - Dimensions

The innovative behaviour dimensions are all consistent to one another as it could be expected given the suggestion of the factor analysis to pair all items in one component. They all exhibit a mean around 3.5, standard deviation of 0.8 and are skewed to the right (from as little as -0.188 to -0.313). On the same line it can be noted that all items have a maximum of 5 while the minima are between 1.33 and 2.

As for the four time dimensions, differences in means were expected based on the grouping of the factors analysis. Thus, the mean varies from 2.14 (TPX) up to 3.65 (TMA). Moreover, two dimensions (TMA, TOF) exhibit a moderate negative skewness, TEQ exhibit a very low (0.065) skewness to the left and TPX a strong positive skewness (0.647).

The next step will be to test the degree of association between the new dimensions by calculating Spearman's rho for the ordinal items.

4.4 Bivariate Correlation

	INBEH	IOX	IGE	IFI	ICH	IAP
TMA	-0.338**	- 0.283**	-0.264**	-0.302**	-0.303**	-0.232*
TOF	0.137	0.097	0.171	0.198*	0.125	0.063
TPX	-0.266**	-0.268**	-0.261**	-0.156	-0.226*	-0.171

TEQ	0.102	0.083	0.194*	0.112	0.058	0.052

** Correlation is significant at the 0.05 level (2-tailed).*
*** Correlation is significant at the 0.01 level (2-tailed).*

Table 8, bivariate correlation dimension level time and innovative behaviour

For a detailed breakdown of the bivariate correlations, see Appendix 7

- TMA: negative significant relation with all dimensions except TOF and TPX. INBEH sig 0.01 at -0.338. shows the strongest correlation. IOX, IGE IFI & ICH are also significant at 0.01 ranging from -0.264 up to -0.303. Of the innovative behaviour dimensions IAP has the lowest correlation (-0.232 and significant at 0.05);
- TOF: exhibits a significant relation (0.05) with only the innovative behaviour dimension IFI. With the time scale worth of notice is the significant (0.05) positive relation with TPX (0.223);
- TPX: negative correlation with all dimensions in the innovative behaviour scale. IOX exhibits the strongest correlation at -0.268, followed by INBEH and IGE all significant at 0.01. IFI and IAP also show a low negative correlation but are statistically significant at the 0.05 level;
- TEQ: shows a positive statistically significant (0.05) correlation with only IGE (0.194) for the innovative behaviour scale and with TMA (-0.199) for the time scale.

4.5 Multilinear Regression Analysis

Before performing the stepwise multilinear regressions all of the four assumptions of homoscedasticity, linearity, normality as well as multicollinearity were tested to hold true. Step 1 consisted of the four control variable (Age, Gender, Education and Years in the company) and explained 19.8% of the variance in innovative behaviour.

Hypotheses were then rejected based on the p-value >0.05 and the F-value < critical f value

4.5.1 Time Management and Innovative Behaviour

H1) A perception of time resulting in a monochronic structuring of time and tasks at work (TMA) will negatively influence innovative behaviour (INBEH)

Model summary								
Model	R-Square	Adjusted R-Square	Std error of the estimate	R-Square Change	F-Change	df1	df2	Sig. F Change
1a	.198	.090	.67016	.198	1.842	13	97	.047
2b	.278	.173	.63893	.081	10.711	1	96	.001

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS3, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients (Model 2b) - Dependent variable INBEH					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	5.075	.450		11.280	.000
GENDER2	-.108	.136	-.073	-.792	.430
GENDER3	-1.384	.675	-.187	-2.049	.043
AGE1	-.239	.303	-.071	-.789	.432
AGE3	-.002	.189	-.001	-.011	.992
AGE4	.109	.201	.062	.542	.589
AGE5	.124	.287	.048	.432	.667
EDU2	.209	.219	.105	.957	.341

EDU3	-.394	.146	-.272	-2.704	.008
EDU5	.280	.342	.075	.819	.415
YEARS2	.129	.177	.068	.725	.470
YEARS3	-.174	.205	-.094	-.848	.398
YEARS4	-.041	.300	-.014	-.138	.891
YEARS5	-.420	.273	-.172	-1.541	.126
TMA	-.376	.115	-.313	-3.273	.001
Excluded variables: GENDER1, AGE2, EDU4, YEARS1					

For full details of the multilinear regression analysis, see Appendix 8.

A multilinear regression was performed to identify the effect of the monochronic structuring of time and tasks at work on innovative behaviour after controlling for the influence of Age, Gender, Education and Years in the company. After entry of the perception of time resulting in a monochronic structuring of time and tasks at work in model 2, the variance explained by the model was 27.8% (F(14,96)=2.647, p=0.003. In the final model exclusievly GENDER3, EDU3 and TMA were statistically significant, with GENDER3 score recording higher beta value (beta=-1.384, p=0.043) than EDU3 (beta=-0.394, p=0.008) and TMA (beta=-0.001, p=0.01). On the other hand, Age and Years in the company showed no statistically significant influence on the innovative behaviour in this model.

H0=Rejected ---> TMA exhibits a negative effect on INBEH

4.5.2 Temporal Sphere and Innovative Behaviour

H2) A future temporal orientation (TOF) positively influences innovative behaviour (INBEH)

Model summary								
Model	R-Square	Adjusted R-Square	Std error of the estimate	R-Square Change	F-Change	df1	df2	Sig. F Change
1a	.198	.090	.67016	.198	1.842	13	97	.047
2b	.234	.122	.65827	.036	4.535	1	96	.036

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2 EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients (Model 2b) - Dependent variable INBEH					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.091	.309		9.994	.000
GENDER2	-.156	.138	-.106	-1.127	.263
GENDER3	-1.257	.695	-.170	-1.810	.074
AGE1	-.191	.312	-.056	-.611	.543
AGE3	.191	.189	.112	1.011	.315
AGE4	.284	.209	.162	1.356	.178
AGE5	.329	.300	.128	1.097	.275
EDU2	.166	.225	.083	.738	.462
EDU3	-.439	.149	-.303	-2.948	.004
EDU5	.162	.351	.043	.464	.644
YEARS2	.212	.185	.112	1.144	.255
YEARS3	-.081	.211	-.044	-.386	.700
YEARS4	.051	.314	.018	.162	.872

YEARS5	-.278	.281	-.114	-.991	.324
TOF	.154	.073	.211	2.130	.036
Excluded variables: GENDER1, AGE2, EDU4, YEARS1					

For full details of the multilinear regression analysis, see Appendix 8

As for the previous hypothesis for H2 a multilinear regression was performed to identify the effect of a future temporal orientation on innovative behaviour after controlling for the influence of Age, Gender, Education and Years in the company. After entry of the future temporal orientation (TOF) in model 2, the variance explained by the model was 23.4% (F(14,96)=2.097, p=0.018. In the final model only EDU3 and TFO were statistically significant, with EDU3 score recording higher beta value (beta=-0.439, p=0.004) than TOF (beta=0.114, p=0.036). The other control variables (Age, Gender and Years in the company) showed no statistically significant influence on the innovative behaviour in this model.

H0=Rejected ---> TOF shows a positive effect on INBEH

4.5.3 Perceived Value of Time and Innovative Behaviour

H3) A perception of time indicating temporal persistence (TEQ) will positively influence innovative behaviour (INBEH)

Model summary								
Model	R-Square	Adjusted R-Square	Std error of the estimate	R-Square Change	F-Change	df1	df2	Sig. F Change
1a	.198	.090	.67016	.198	1.842	13	97	.047
2b	.205	.089	.67054	.007	.889	1	96	.348

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients (Model 2b) - Dependent variable INBEH					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	3.434	.294		11.683	.000
GENDER2	-.184	.141	-.126	-1.308	.194
GENDER3	-1.270	.708	-.172	-1.795	.076
AGE1	-.212	.321	-.063	-.661	.510
AGE3	.158	.192	.093	.824	.412
AGE4	.193	.209	.110	.921	.359
AGE5	.194	.300	.076	.647	.519
EDU2	.157	.229	.079	.684	.496
EDU3	-.424	.154	-.293	-2.758	.007
EDU5	.177	.357	.047	.494	.622
YEARS2	.126	.188	.067	.674	.502
YEARS3	-.104	.214	-.056	-.486	.628
YEARS4	-.086	.314	-.030	-.274	.785
YEARS5	-.329	.285	-.135	-1.153	.252
TEQ	.088	.094	.089	.943	.348

Excluded variables: GENDER1, AGE2, EDU4, YEARS1

For full details of the multilinear regression analysis, see Appendix 8.

Similarly, as the previous hypothesis a multilinear regression was performed to analyse the impact of a perception of time indicating temporal persistence on innovative behaviour after introducing the control variables. The regression model of TEQ to INBEH showed an increase in R^2 but the increase was not statistically significant. Variance explained in model 2 was 20.5% yet by looking at R adjusted the variance explained decreased from 9% to 8.9% while the significance level rose to 0.348. As for the previous regressions, EDU3 is statistically significant in the final model (beta=0.424, p=0.007).

H0 ---> can not be rejected at a 0.05 significance level

H4) A hopeless temporal orientation of the past (TPX) negatively influences innovative behaviour (INBEH)

Model summary								
Model	R-Square	Adjusted R-Square	Std error of the estimate	R-Square Change	F-Change	df1	df2	Sig. F Change
1a	.198	.090	.67016	.198	1.842	13	97	.047
2b	.229	.117	.66032	.031	3.910	1	96	.051
a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5 b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX								

Coefficients (Model 2b) - Dependent variable INBEH					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	4.054	.240		16.915	.000
GENDER2	-.157	.139	-.107	-1.133	.260
GENDER3	-1.172	.698	-.158	-1.678	.097
AGE1	-.108	.314	-.032	-.344	.731
AGE3	.211	.190	.124	1.110	.270
AGE4	.127	.209	.073	.609	.544
AGE5	.142	.297	.056	.479	.633
EDU2	.223	.228	.112	.982	.329
EDU3	-.386	.153	-.266	-2.527	.013
EDU5	.202	.352	.054	.573	.568
YEARS2	.125	.184	.066	.679	.499
YEARS3	-.102	.211	-.055	-.482	.631
YEARS4	-.140	.311	-.049	-.450	.654
YEARS5	-.304	.281	-.124	-1.082	.282
TPX	-.192	.097	-.194	-1.977	.051
Excluded variables: GENDER1, AGE2, EDU4, YEARS1					

For full details of the multilinear regression analysis, see Appendix 8.

Similarly, to H3, in the final model the independent variable (TPX) is not statistically significant (beta=-0.192, p=0.051) while only EDU3 recorded a statistically significant beta value (beta=-0.386, p=0.013). The variance in innovative behaviour in model 2 (introducing TPX) was explained by 22.9% ($F(14,96)=2.041$, $p=0.022$).Thus, even though R^2 increased the significant level of the model decreased from 0.047 to 0.051.

H0 --->can not be rejected at a 0.05 significance level

Chapter 5: Discussion

The aim with this study was to explain the influence of employee's perception of time on innovative behaviour. To answer this, data was collected on employees' perception of time based on the three time dimensions: time management, temporal sphere and perceived value of time. An analysis was performed to statistically test the relations. This chapter will discuss the results and compare the findings to earlier studies relevant to the field.

5.1 General Discussion

5.1.1 Sample and Population

The collected data shows that the typical respondent of the questionnaire is a male aged between 25 and 34 with a Master degree having worked for the company less than 2 years. This in other words resulted in a highly homogenous sample. Thus, before discussing the findings, careful consideration needs to be made regarding the sample due to implications for the final outcome and generalizability of the study. On one hand, homogenous groups can be more easily compared and allow theoretical prediction that would be more difficult with heterogeneous group (Calder et al., 1981). On the other hand, controlling for age, gender, education and years in the company demonstrated itself not highly significant as not enough information were available for each group category. As presented by Bryman & Bell (2011), if the researchers desire to analyse a heterogeneous population "the implication of this is that, the greater the heterogeneity of a population, the larger a sample will need to be." (Bryman & Bell, 2011, p.189). Thus, a reflection on the sample of the study as well as the populations are required.

First, the sample of the study was selected through non-probability, and Sheehan and Hoy (1999) argue that if paired with the data collection method of an online email survey, there are higher chances of homogeneous respondents. Moreover, given the response rate (slightly above 30%) and small sample size, analysis of the non-responded is required, but due to the anonymity of the survey, it was not possible to identify the participants over those that did not participate. Bryman and Bell (2011) posit that it is difficult to identify the differences between the population and the sample accounting for non-response in relation to behaviours. For this reason, a cross reference at the control variables level was performed. Age, level of education and gender of the sample showed close correspondence with the population of Swedish civil engineers (see 3.3.1 for details). Thus, when further elaborating on the findings the peculiarities of the population and the sample will be kept in high consideration, as generalising the results from the sample to the population should be done with caution

5.1.2 Control Variables

Referring to both Hall (1983) and Wiklund & Shepherd (2005), assumptions that nationality plays a role in how time is perceived proved true for the data, comparing datasets with and without non-Swedes displayed different patterns. Although the study already had a parameter set to include only employees in the analysis, this notion also held true for position, as dataset consistency increased when sorting out managers. Taken together, it is deemed that the findings of this study are generalizable to non-managerial employees in a population of large-sized Swedish consulting companies active in civil engineering. For academia, the employee sample might be fruitful to study in other contexts, namely finding out if employees with a similar character in other industries exhibit the same perception of time and how unique it is to large-sized Swedish consulting companies. The data from the characteristics of the sample could also be used to purposively sample other groups based on the control variables. The positive influence of higher age on generativity and lowers years in the company on opportunity exploration could for example be a recipe leading to a competitive advantage. As these assumptions are not proven, they could in the least inspire for creative research design and testing new team compositions in companies.

5.1.3 Time Dimensions

The factor analysis of the time dimensions reveals that the concept of time indeed is nuanced. Not only did the factor analysis lead to a collapse of time into fewer dimensions, from 8 to 4, it also bridged dimensions in new ways, forming new dimensions across earlier established concepts. This finding helped to answer - what types of dimensions matters in this specific research setting? And how are they related?

Reflecting over Usunier and Valette-Florence work (2007), the concepts were drawn from interdisciplinary studies on time with a strong focus on marketing and consumer behaviour, although applicable in "a large array of attitudinal and behavioural issues in the social sciences." (Usunier & Valette-Florence, 2007, p.357)

Thus, it can be argued that due to the different behaviours and social context, new dimensions emerged based on the different meaning and value of time for employees, as opposed to consumers. In turn, it would increase the understanding of influence of perception of time to see how time dimensions would be aggregated when testing on managers or in a different context. In other words, this would allow to create a deeper understanding of the variance of perception of time and develop practical solutions to exploit the effect of different perceptions of time.

Regarding Swedish employees, the new dimensions TMA, TPX and TEQ as well as TOF, became the foundation to analyse the relation between time and innovative behaviour.

The new dimensions all addressed various levels of time among the employees:

- TMA - Time management - the behaviour;
- TPX - the cognitive negative dwelling to the past;
- TEQ - the motivational;
- and TOF - the envisioning of the future.

In essence, the new dimensions brought both a new richer measurement suited for use in this particular study and practically made data easier to manage. Moreover, the revelation of the unison linkage of the old dimensions making up the new dimensions, opened the path to further explore the dimensions in more detail.

5.2 Relations between the Dimensions

Analysing the correlation between the new time dimensions and innovative behaviour, reflections can be made in two levels: within the scale and between the two scales. Here a reflection of the identified relations between time dimensions will be discussed

On relations within the time scale, worth to notice is the negative correlation between the behavioural time management (TMA) and the perception of time influenced by motivation (TEQ). An interesting hypothesis would be to consider the correlation between the two variables as a spurious relationship, implying the interference of a third variable. Finding possible variables influencing both TMA and TEQ, "freedom" seems an arguable possibility. In fact, Dewett (2007) and Oldham & Cummings (1996) identify in their studies how freedom to organize and schedule tasks make the relationship between autonomy (as opposed to time submissiveness) and innovative behaviour meaningful. This is in line with the work from Amabile & Gryskiewicz (1989) which posit that one of the key factors influencing creativity is the feeling of freedom. This translates to freedom from the need of a quick return to reach fulfilment and rather be able to plan multiple activities in the long-term (Zampetakis et al., 2011).

Thus, relating it back to this study, being submissive to an externally imposed monochronic work management will hamper the perception of freedom resulting in a negative relation. On the other hand, a feeling of control over the tasks and one's own personal behaviour would support a feeling of freedom and reduce the oppression from requiring a quick return. Britton & Glynn (1989) find on the concept of "mental time" the "freedom" previously discussed but taking the concept a step further. Metacognition is the ability to manage and control the "mental time" and behaviour associated. Thus, the perception of time tenacity in this research could be argued as one of the key components creating a high metacognition. However, putting all the effort on managing objective time in a monochronic manner would cause a decrease of metacognition if resulted in submissiveness to the aforementioned time.

Similarly, a positive correlation exists between TPX and TOF. Overall looking back at theories presented in Chapter 2 both dimensions belong to the personal temporal sphere and are characterised by an added value of time: positive for TOF and negative for TPX. Thus, as for the previous group, a third variable influencing the other two variables could be identified but for this specific case a discussion could be opened on the possibility of an intervening variable. For this reason, the results from the correlation within items (see Appendix 4) are very useful to better understand the relations between these two dimensions. More specifically, if we look at the significant correlations, items of the TOP group exhibit a positive correlation with both items of TAX as well as TOF. On the other hand items of TAX show, no statistically significant correlation with TOF. The positive relation between TOF and TOP is a clear indication of a possible spurious relationship. This becomes evident if the work of Guy et al. (1994), Venkatesan et al. (1996), and Usunier & Valette-Florence (2007) are considered. According to these authors, "as people age they have less time ahead of them and their future perspective is accordingly affected. Consequently, future orientation should decline with chronological age. Since the amount of past experiences increases simultaneously, past orientation should also increase with age" (Usunier & Valette-Florence, 2007, p.340). In other words, the expectations, based on the authors, were to see a negative correlation between the TOP and TOF items. At the same time the findings show a positive relationship, thus hinting of an influence from a third variable. One concept could be "temporal focus". Shipp et al., (2009) define the concept as "the attention individuals devote to thinking about the past, present, and future, and the concept is important because it affects how people incorporate perceptions about past experiences, current situations, and future expectations into their attitudes, cognitions, and behaviour." (Shipp et al., 2009, p.1). In other words, with reference to the study, a connection between "Past, Present, and Future thinking" (Fortunato and Furey, 2010) is influenced by the content of the employee's past, present and future. Thus, TOP and TOF represent the "thinking" while TAX and TSB are the "content" or the positive or negative value placed on the "thinking".

Taken together and reflecting over possible relations, what can be argued by reflecting over the interdependencies between the dimensions in a process-oriented way is:
the motivation dimension can be thought of as influencing the temporal orientation and how the temporal sphere is perceived, this can lead to an expansion or contraction of the temporal sphere and determine how useful it is in relation to innovative behaviour. This model is speculative by nature since it was not primarily researched in this study but might give inspiration for future

research and open up new avenues for research in the perception of time and innovative behaviour.

5.3 Time Perception Influence on Innovative Behaviour

The focus of this research was to identify the effect if any, that those different perceptions of time have on innovative behaviour at an employee level. As presented in 4.3, innovative behaviour has been analysed both as one dimension (as suggested by the factor analysis) as well as divided into the 5 key components. To advance the discussion and be able to have a clear practical contribution for managers, regression analyses have been performed for all five dimensions of innovative behaviour to more clearly identify the specific effect of time towards each specific component of the employees' innovative behaviour. In the following section a reflection on the effect of time perception on innovative behaviour will be presented. Here a table summarizing the statistically significant (0.05) beta coefficient of time on the innovative behaviour dimensions.

	INBEH	IOX	IGE	IFI	ICH	IAP
TMA	-0.376	-0.295	-0.350	-0.401	-0.507	-0.326
TFO	0.154	-	0.186	0.211	-	-
TPX	-	- 0.231	-	-	-0.286	-
TEQ	-	-	-	-	-	-
See appendix n* for details	8	9	10	11	12	13

Empty cells: Not significant at 0.05

Table 9, Beta coefficient of the time dimension in the 2nd model of the multilinear regression analysis

5.3.1 Time Management and Innovative Behaviour

As predicted and hypothesized, a perception of time resulting in a monochronic structuring of time proved to negatively influence innovative behaviour. The findings confirm earlier studies conducted by Furnham (2006), Furnham et al. (2006) and Wolfradt & Pretz (2001). Although Bluedorn (2015) did not find consistent support for polychronicity and creativity, this study sheds some light that this assumption might still hold potential, as the results are in line with El Gedi´s (2017) study on polychronicity and innovative attitudes. TMA exhibited a negative influence on all dimensions of innovative behaviour, in particular, the highest impact was observed for championing (ICH). The findings are in line with earlier research conducted by Chakrabarti (1974) and could be expected given that a championing behaviour is non-systemic, and champions are described as risk-takers, challenging the status quo (Kleysen and Street, 2001). Moreover, the results put a light on the twofold nature of innovative behaviour, encompassing both creative and innovative elements. Opportunities can be recognized, and ideas can be generated under time pressure, as also is evident by the research of Runco (2004) and Noefer et al. (2009), yet the implementation of ideas once conceived could plausibly be even more negatively influenced by the lack of time to enact a champion behaviour. Furthermore, considering the negative influence with formative investigation (IFI), connections can be made with the employees of consulting companies which exhibit high knowledge but fail to implement the innovations in the "home" organization (Ross, 2016). In other words, lending support to a less monochronic perception of time could be a solution to spur idea implementation and moderate how innovations are carried over from the employee to the organization.

Reflecting over the contrast to Montani et al.´s (2014) findings, which posit that planning is conducive to an innovative behaviour, some caution in making a stark contrast as Montani´s (2014) research points to empowerment and flexibility in planning one's own time as conditional factors. A possible explanation could be that, in line with Amabile et al. (1996), a sense of freedom in terms of time is needed to support innovative behaviours. Deeper research on the degree of dispositional or situational influence on perception of time would help to further understand the dynamics between these two factors influencing perception of time in relation to time management. An increased understanding of this relationship could build the foundation for tools to master the situational perception of time within organizations, creating the best possible environment for innovative behaviours to flourish.

5.3.2 Temporal Sphere and Innovative Behaviour

The empirical research and analysis supported the hypothesis: a future temporal orientation positively influences innovative behaviour. As such, the findings translate, as expected, the studies conducted on managerial and organizational level by Yadav et al., (2007) and Liao (2016) to also be applicable on an employee level. Furthermore, statistical significance was found for a future temporal orientation positively influencing the two innovative behaviour dimensions formative investigation and generativity. Relating to evaluating ideas (Damanpour, 1991) and formulating of ideas (Amabile, 1988) as part of the formative investigation and generativity dimensions, a future orientation could explain an employee capability to pinpoint the use and value of an idea and communicate the usefulness to others in the organization. The statistical significance with generativity should thou be interpreted with caution given the low KMO value and Cronbach Alpha of generativity.

5.3.3 Perceived Value of Time and Innovative Behaviour

The hypothesis, a perception of time indicating temporal persistence positively influences innovative behaviour, showed no statistically significant and was thus not supported. This finding might be somewhat surprising as several scholars in the field of innovative behaviour (e.g. Howell et al., 2005) explicitly portrays the champion behaviour as a character of grit, overcoming obstacles and paving the way for innovation within the organization. Neither did the results point the opposite direction, as assumptions for relations between a preference for quick returns and application was not supported, as this relation could be expected given the research conducted by Przepiorka (2016). Pondering why, Bluedorn & Martin (2008) argue that entrepreneurs showing temporal persistence on their own, might not translate to the same behaviour when working in a group. Moreover, Amabile & Pratt (2016) point to meaningful work as a key driver of persistence. Could it be that the motivation of the employees in this study are not strong enough to drive, and exhibit temporal persistence? The survey conducted in the company 2018 revealed a high interest in innovation (95% of the respondents), but low participation on innovative projects (<10%) which could point to too few avenues for employees to channel their motivations, leading to low levels of temporal persistence to start with.

Finally, the hypothesis, a hopeless temporal orientation of the past negatively influences innovative behaviour, was not supported, falling short to reach a statistical significance, although with the smallest possible margin at a P-value of .051.

Still, the statistical significance was reached for negatively influencing the innovative behaviour dimension opportunity exploration and championing. Referring to opportunity exploration, Lukes and Stepan's (2017) notion searching for *new* ideas or Shane's (2000) envisioning of what an opportunity might be and the role value it can bring, coupled with the results, tells looking to the past in a negative manner indeed impedes opportunity exploration. This could have a strong impact on organisations since opportunities are the fuel for ideas and the subsequent innovation process.

Interrelations within Dimensions and the Role of Value towards Time

Keeping in mind that hypothesis H4 (TPX-INBEH) did not find support. The two original dimensions constructing TPX (TAX and TOP) conveys differing levels of correlation towards innovative behaviour, with TAX showing a stronger correlation compared to TOP.

	INBEH	IOX	IGE	IFI	ICH	IAP
TAX	-.287**	-.291**	-.276**	-.183	-.230*	-.190*
TOP	-.193*	-.202*	-.173	-.109	-.193*	-.119

** Correlation is significant at the 0.05 level (2-tailed).*

*** Correlation is significant at the 0.01 level (2-tailed).*

Table 10, bivariate correlation TAX, TOP and innovative behavior dimensions

For the sake of shedding more light on these two dimensions, the opportunity was taken to break down TPX, and conduct a multilinear regression analysis with the two original dimensions TAX and TOP. The reasoning behind the dissection of dimensions was to find out more about the relation of what value judgement towards time plays. As the perceived value of time also plays a part in mounting up motivation for temporal persistence researched in H3, questions arise as to what role does putting a value towards time play in regard to perception of time?

As this study did not research these relations specifically, there are no finite answers. Yet, reflecting over time relations between a future temporal orientation and optimism and hope, the value put towards time might be a moderator itself for perception of time, and the subsequent influence on innovative behaviour.

Moreover, TPX has been broken down, and further analysis has been performed on TAX and TOP separately with innovative behaviour (see Appendix 14 & 15 for more details).

	INBEH	IOX	IGE	IFI	ICH	IAP
TAX	-.180	-.230	-	-	-.238	-
TOP	-	-	-	-	-	-

Empty cells: Not significant at 0.05

Table 11, Beta coefficient of the time dimensions TAX and TOP in the 2nd model of the multilinear regression analysis

The results concerning TAX is found to negatively influence innovative behaviour, a result that is in line with the research from Carmeli et al. (2006) and Ng and Lucianetti (2016), and further supports the notion that a low perceived value of one's time negatively influence innovative behaviour. Noteworthy is that the negative influence for TAX is also statistically significant to both opportunity exploration and championing. The analysis of TOP showed no support for influencing innovative behaviour, or any of the individual innovative behaviour dimensions.

As the last hypothesis of the study was a blend of theory from two time dimensions, temporal sphere and perceived value of time, the takeaway from this analysis is that the value towards time seems to play a larger role for innovative behaviour, compared to only looking to the past. The findings point to interdimensional relations, how do they influence each other and what are the causality? This study has stressed the nuanced, evading nature of time, and although no finite answers can be given, it underpins the complexity. From a practical viewpoint, an atmosphere of support, encouragement and trust could possibly moderate how employees look at time, in this scenario looking to the past might well be useful to enhance innovative behaviour. However, more research would be needed to support this reflection.

Chapter 6: Conclusion and Implications

In this final chapter, the study will be concluded with a condensed description of what can be deduced from the findings and analysis. The chapter is drawn to a close with suggestions for future research, limitations and implications of the findings for practitioners.

6.1 Findings, Limitations & Further studies

The aim of the study was to identify how employees' perception of time influences their innovative behaviour. Thus, through this cross-sectional study previous research has been confirmed conveying that a perception of time resulting in a monochronic structuring of time negatively influences innovative behaviour, as well as a future temporal orientation positively influences innovative behaviour. On the other hand, no statistically significant effect was identified for an influence of temporal persistence on innovative behaviour. Likewise, no support was found for a hopeless temporal orientation of the past influencing innovative behaviour.

This research examined established concepts of time and innovation in the context of employees and based on the explorative nature of the research further studies would be suggested. Due to the nature of the quantitative method, hypotheses could only be supported but not explain the reasons for why and the dynamics behind the influence of employees' perception of time and innovative behaviour. This is also in line with the instruments used as the survey allowed only for self-reporting data.

In this study, a deliberately broad and nuanced approach was applied, more detailed and focused research on the perception of time and employees' innovative behaviour is needed, in particular of the antecedents and the dynamics of how the perception of time in an organization is formed. As organizations have a potential to influence the perception of the employees in a way that favours innovative behaviour, changing the organizational perception of time would call for more research to understand the collateral impact efforts an intentional effort for change would have on the organization. Thus, for further research, a mixed method design would be highly suggested through experimental methods.

Regarding the data collection, measurement of orientation towards the past with an even more objective lens might have yielded different results than shown in this research. The value judgement made towards time does play a significant role in determining one's experience and inclination towards temporal orientation towards the past. Moreover, due to the high influence that personal experience and behaviours play on our perception of time, control variables for personality traits would allow to identify more in details the relations between the time perceptions as well their effect on innovative behaviour. The authors of this study also call for more research into the concept of temporal depth and its influence on innovative behaviour, in particular applying measurements, for example the Temporal Depth Index (Bluedorn, 2002), allowing for a deeper understanding of time horizons among employees and their capability to draw from past experience to recognize future opportunities.

Another limitation of the study is due related to generalizability. Given the differences in perception of time, similar studies conducted in other cultures would likely yield different results, thus the generalizability in these terms are limited. Moreover, although assumptions were made with theoretical support, the dominating perception of time within the population/sample was not measured statistically, neither was the degree of situational or dispositional influence towards employees' perception of time. This would have allowed to make more careful consideration of the validity of the sample and possibility for generalizability.

6.2 Managerial Implications

In layman terms, the research posits that allocating objective time as in days, hours or minutes is not likely to result in the same level or type of innovative behaviour for every organization or individual. Scheduling time for employees to be innovative might not be enough as according to the results of this study, the mere planning of time can be unfavourable towards innovative behaviour. Managers are encouraged to allow employees to manage their time in a flexible manner, to not reach a double down effect of a monochronic organization and monochronic employees. Companies are further encouraged to stimulate future looking temporal orientations within their organizations, as employees then are more likely to adopt a similar perception of time, which would benefit their innovative behaviour. For practitioners in the field of Human Resource Management, the results could be useful when hiring new talent for roles where innovative behaviour is crucial or when management are looking to compose a new autonomous business unit outside of the organization with a perception of time different from that of the central organization.

6.3 Theoretical Implications

The findings and the research add the perception of time to the list of moderating factors already found to influence innovative behaviour (e.g. organizational support and trust).

Considering that perception of time can draw influence from both external and internal influences, in this study referred to as dispositional and situational, the field of potential areas of factors influencing innovative behaviour is expanded. Researchers in the field of innovation might also want to consider time as a control variable when researching creativity or innovation on an individual level. This can also be applied to other areas, as the phenomena of time is relatable to all human behaviour. On the other hand, it will be important to consider substantial difference between the types of innovative behaviour and the conditions influencing them. In fact, the research findings are in line with previous studies investigating the factors influencing scientific innovative behaviour as differing from an artistic innovative behaviour.

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Appendixes:

Appendix 1: Survey questions

A) English

LUND UNIVERSITY

Welcome!

Thank you for taking the first step of this survey. In collaboration with Lund University, the results of this survey will be used to improve the way (case company) works with innovation.

There are no right or wrong answers, so simply answer with first thoughts that come in your mind. The survey will take approximately 5 minutes to complete with 50 multiple choice questions.

The submission is completely anonymous and all data collected will remain strictly confidential.

Tomorrow Matters!

1. Gender

○ Man ○ Female ○ Other

2. Age

18-24 ○ 25-34 ○ 35-44 ○ 45-54 ○ 55-64 ○ 65+ ○

3. Were you born in Sweden or Denmark?

○ Yes, in Sweden ○ Yes, in Denmark ○ Neither

4. If no, How long have you been in Sweden or Denmark?

less than 1 year ○ 1-3 ○ 4-7 ○ 8+ ○

5. What is your education level?

No high school ○ High school ○ Bachelor degree ○ Master degree ○ Phd ○

6. How long have you been working for (Case company)? (Years)

0-2 ○ 3-5 ○ 6-10 ○ 11-15 ○ 16+ ○

7. In which office are you working from?

8. Current position (choose the closest alternative)

Management (head of department, regional director,...) ○ Consultant ○

Comments

Please answer each of the following questions as honestly as you can.
All answers will be kept strictly confidential. **Don't worry, there is not a perfect answer!**

Express your position in regard to the following sentences on a scale from 1=Strongly disagree/Never to 5=Strongly agree/Always

9. ..."I plan my activities so that they fall into a particular pattern during the day"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

10. ..."I like to have a definite schedule and stick to it"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

11. ..."I like to plan my daily activities so I know just when to do each thing"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

12. ..."I enjoy following a schedule"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

13. ..."I hate following a schedule"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

14. ..."It is more fun to take one thing at a time than to plan my day in advance'

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

15. ..."I hate to make any sort of definite plans weeks or months in advance"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

16. ..."I feel nostalgic about the past"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

17. ..."When I am by myself, my thoughts often drift back to the past"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

18. ..."I think quite often about my life as it used to be"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

19. ..."Sometimes I find myself dwelling on the past"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

20. ..."I spend time thinking about what my future might be like"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

21. ..."I think a lot about what my life will be some day"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

22. ..."Many of us tend to daydream about the future. It also happens to me"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

23. ..."I often think about the things I am going to do in the future"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

24. ..."No matter how hard I try, I am nearly always a little late"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

25. ..."I am almost never late for work or appointments"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

26. ..."If the only way I can get to an appointment is by rushing, I'd rather be late"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

27. ..."I would rather come early and wait than be late for an appointment"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

28. ..."Looking at a typical day in my life, I think that most things I do have some purpose"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

29. ..."I sometimes feel that the way I fill my time has little use or value"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

30. ..."I am bored by my day-to-day activities"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

31. ..."I often feel that my life is aimless, with no definite purpose"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

32. ..."Once I have started an activity, I persist at it until I've completed it"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

33. ..."When I begin a project, I don't like to stop it until it is finished"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

34. ..."When I am interrupted doing a task, I almost always go back to it as soon as I can"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

35. ..."I would prefer doing several very small projects than one very large one"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

36. ..."I would prefer doing one very large project than several small ones"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

37. ..."I would rather try to get two or three things done quickly than spend my time on one big project"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

In your current job, how often do you.... (on a scale equivalent to 1=Never, 5=Always)

38. ..."Look for opportunities to improve an existing process, technology, product, service or work relationship?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

39. ..."Recognize opportunities to make a positive difference in your work, department, organization or with customers?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

40. ..."Pay attention to non-routine issues in your work, department, organization or the market place?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

41. ..."Generate ideas or solutions to address problems?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

42. ..."Define problems more broadly in order to gain greater insight into them?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

43. ..."Experiment with new ideas and solutions?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

44. ..."Test-out ideas or solutions to address unmet needs?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

45. ..."Evaluate the strengths and weaknesses of new ideas?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

46. ..."Try to persuade others of the importance of a new idea or solution?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

47. ..."Push ideas forward so that they have a chance to become implemented?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

48. ..."Take the risk to support new ideas?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

49. ..."Implement changes that seem to be beneficial?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

50. ..."Work the bugs out of new approaches when applying them to an existing process, technology, product or service?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

51. ..."Incorporate new ideas for improving an existing process, technology, product or service into daily routines?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

B) Swedish

LUND UNIVERSITY

Välkommen!

Du har just tagit det första steget i denna undersökning, en studie i samarbete med Lunds Universitet med målet att förbättra hur (case company) jobbar med innovation.

Det finns inga rätta eller fel svar i denna enkät, så tvivla ej och svara vad du initialt tänker. Enkäten tar cirka 5 minuter att svara på och består av 50 multiple choice frågor.

Deltagandet är helt anonymt och all insamlad data hanteras konfidentiellt.

"Tomorrow Matters" och lycka till!

1. Kön

○ Man ○ Kvinna ○ Identifierar som annan

2. Alder

18-24	25-34	35-44	45-54	55-64	65+
○	○	○	○	○	○

3. Ar du född i Sverige eller Danmark?

○ Ja, i Sverige ○ Ja, i Danmark ○ Varken eller

4. Om nej: Hur länge har du varit i Sverige eller Danmark?

Mindre än ett år	1-3	4-7	8+
○	○	○	○

5. Din högsta avklarade studienivå

Mindre än grundskola	Gymnasieexamen	Kandidatexamen	Masterexamen	Doktorsexamen
○	○	○	○	○

6. Hur länge har du varit anställd på (Case company)? (Ar)

0-2 3-5 6-10 11-15 16+

7. Vilket kontor tillhör du?

8. Vilken är din nuvarande befattning? (Välj den som närmast överensstämmer)

Ledning (Avdelningschef, Affärsområdeschef,...)

Konsult

Kommentar

Vänligen svara på följande påståenden. All data hanteras konfidentiellt. Och kom ihåg - det finns inga felaktiga svar.

Svara på följande påståenden, ange ditt svar på skalan 1=Håller inte alls med/Aldrig, 5=Instämmer helt/Alltid

9. ..."Jag planerar mina aktiviteter så att de faller i ett speciellt mönster under dagen"

1 2 3 4 5

10. ..."Jag tycker om att ha ett schema och hålla mig till det"

1 2 3 4 5

11. ..."Jag gillar att planera mina aktiviteter så att jag vet när jag ska göra vad"

1 2 3 4 5

12. ..."Jag gillar att följa ett schema"

1 2 3 4 5

13. ..."Jag ogillar skarpt att följa ett schema"

1 2 3 4 5

14. ..."Det är roligare att ta saker som de kommer än att planera dagen i förväg"

1 2 3 4 5

15. ..."Jag hatar att ha bestämda planer veckor eller månader i förväg"

1 2 3 4 5

16. ..."Jag känner mig nostalgisk inför det förflutna"

1 2 3 4 5

17. ...“När jag är för mig själv tänker jag ofta på det förgångna”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

18. ...“Jag tänker ganska ofta på hur mitt liv brukade vara”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

19. ..."Ibland kommer jag på mig själv älta det förgångna"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

20. ..."Jag spenderar tid på att fundera på hur min framtid kommer bli”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

21. ...“Jag tänker mycket på hur mitt liv kommer att se ut en dag”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

22. ...“Många av oss dagdrömmer om framtiden, det händer även mig"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

23. ..."Jag tänker ofta på vad jag ska göra i framtiden”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

24. ...“Hur mycket jag än anstränger mig är jag alltid lite sen”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

25. ...”Jag är nästan aldrig sen till jobbet eller möten”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

26. ...”Om jag måste skynda mig för att hinna till ett möte, då blir jag hellre lite sen”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

27. ...”Jag kommer hellre lite innan utsatt tid än att bli sen till ett möte”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

28. ...“Om jag ser till en typisk dag i mitt liv så tror jag det mesta jag gör har någon typ av mening”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

29. ...“Ibland känner jag att vad jag gör med min tid har liten eller inget värde”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

30. ...“Jag är uttråkad av mina dagliga aktiviteter”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

31. ...“Jag känner ofta att mitt liv är utan mål, utan någon speciell mening”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

32. ...“När jag väl påbörjat en aktivitet håller jag på tills jag slutfört den”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

33. ...“När jag påbörjar ett projekt vill jag inte sluta förrän det är färdigt”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

34. ...“När jag blir avbruten i mitt arbete går jag så snart jag kan tillbaka till det jag gjorde sist”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

35. ...“Jag föredrar att göra många små projekt istället för ett stort”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

36. ...“Jag föredrar att göra ett stort projekt istället för många små”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

37. ...“Jag skulle hellre försöka få två eller tre saker snabbt gjorda än att spendera min tid med ett stort projekt”

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

Hur ofta gör du följande i ditt nuvarande arbete…. (I en skala motsvarande 1=Aldrig, 5=Alltid)

38. ..."Letar efter möjligheter att förbättra en existerande process, teknologi, produkt, service eller jobbrelation?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

39. ..."Upptäcker möjligheter att göra en positiv skillnad i ditt arbete, avdelning, organisation eller med kunder?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

40. ..."Uppmärksammar icke rutinmässiga problem i ditt arbete, avdelning, organisation eller på marknaden?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

41. ..."Kommer på idéer eller lösningar för att lösa problem?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

42. ..."Definierar problem i ett bredare perspektiv för att öka insyn i problemet?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

43. ..."Experimenterar med nya idéer eller lösningar?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

44. ..."Testar idéer och lösningar för att tillgodose behov?"

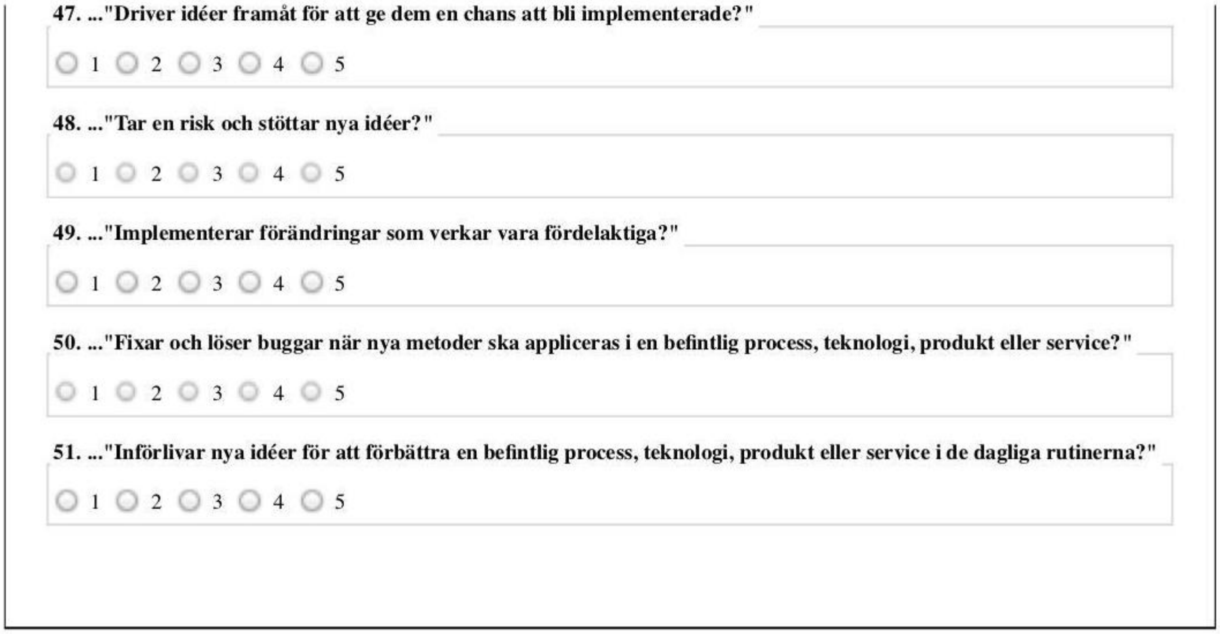
○ 1 ○ 2 ○ 3 ○ 4 ○ 5

45. ..."Utvärderar styrkor och svagheter i nya idéer?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

46. ..."Försöker förmå andra se betydelsen av en ny lösning eller idé?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5



47. ..."Driver idéer framåt för att ge dem en chans att bli implementerade?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

48. ..."Tar en risk och stöttar nya idéer?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

49. ..."Implementerar förändringar som verkar vara fördelaktiga?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

50. ..."Fixar och löser buggar när nya metoder ska appliceras i en befintlig process, teknologi, produkt eller service?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

51. ..."Införlivar nya idéer för att förbättra en befintlig process, teknologi, produkt eller service i de dagliga rutinerna?"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5

Appendix 2: Legend labels of items and dimensions

Control Variables Legend

Survey Question Item	Variable Name	Type	Value	Use
1	**GENDER**	**Ordinal variable**	**Categorical**	**Control Variable**
1	GENDER1	Dummy Variable	Male	Control Variable
1	GENDER2	Dummy Variable	Female	Control Variable
1	GENDER3	Dummy Variable	Other	Control Variable
2	**AGE**	**Ordinal variable**	**Categorical**	**Control Variable**
2	AGE1	Dummy Variable	18 - 24	Control Variable

2	AGE2	Dummy Variable	25 - 34	Control Variable
2	AGE3	Dummy Variable	35 - 44	Control Variable
2	AGE4	Dummy Variable	45 - 54	Control Variable
2	AGE5	Dummy Variable	55 - 64	Control Variable
3	**NAT**	*Not Applicable, See methodology for explanation*		
4	**NAT2**	*Not Applicable, See methodology for explanation*		
5	**EDU**	**Ordinal variable**	**Categorical**	**Control Variable**
5	EDU1	Dummy Variable	No high school	Control Variable
5	EDU2	Dummy Variable	High School	Control Variable
5	EDU3	Dummy Variable	Bachelor degree	Control Variable
5	EDU4	Dummy Variable	Master degree	Control Variable
5	EDU5	Dummy Variable	PhD	Control Variable
6	YEARS	**Ordinal variable**	**Categorical**	**Control Variable**
6	YEARS1	Dummy Variable	0 - 2	Control Variable
6	YEARS2	Dummy Variable	3 - 5	Control Variable
6	YEARS3	Dummy Variable	6 - 10	Control Variable
6	YEARS4	Dummy Variable	11 - 15	Control Variable
6	YEARS5	Dummy Variable	16+	Control Variable
7	OFFICE	*Not Applicable, See methodology for explanation*		
8	POSITION	*Not Applicable, See methodology for explanation*		

Independent Variables - items

All ordinal variables, values 1 - 5.

Survey Question Item	Variable Name	Sub Dimension	Original Dimension	New Dimension
9	TEC1	Economic time	Linearity and economicity of time	Time management
10	TEC2			
11	TEC3			
12	TEC4			
13	TNO1	Non-organised time		
14	TNO2			
15	TNO3			
24	TSB1	Time submissiveness	Obedience to time	
25	TSB2			
26	TSB3			
27	TSB4			
28	TAX1	Time anxiety		Temporal sphere-perceived value of time
29	TAX2			
30	TAX3			
31	TAX4			
16	TOP1	Orientation towards the past	Temporal orientations	
17	TOP2			

18	TOP3			
19	TOP4			
20	TOF1	Orientation towards the future		Orientation towards the future
21	TOF2			
22	TOF3			
23	TOF4			
33	TEN1	Tenacity	Temporal persistence	
34	TEN2			
35	TEN3			
36	TQR1	Preference for quick return		
37	TQR2			
38	TQR3			

Dependent Variables - items

All ordinal variables, values 1 - 5.

Survey Question Item	Variable Name	Dimension
39	IOX1	Opportunity exploration
40	IOX2	
41	IOX3	
42	IGE1	

43	IGE2	Generativity
44	IFI1	Formative investigation
45	IFI2	
46	IFI3	
47	ICH1	Championing
48	ICH2	
49	ICH3	
50	IAP1	Application
51	IAP2	
52	IAP3	

Computed Variables

New Dimension	Computed Variables	Dropped Items	Variable
TMA	TEC1, TEC2, TEC3, TEC4, TNO1, TNO2, TNO3, TSB1, TSB2, TSB4	TSB3	Independent Variables
TOF	TOF1, TOF2, TOF4	TOF3	
TPX	TOP1, TOP2, TOP3, TOP4, TAX1, TAX2, TAX3, TAX4		
TEQ	TEN1, TEN2, TQR1, TQR2, TQR3	TEN3	
IOX	IOX1, IOX2	IOX3	Dependent variables
IGE	IGE1, IGE2		
IFI	IFI1, IFI2, IFI3	-	

ICH	ICH1, ICH2, ICH3	-	
IAP	IAP1, IAP2, IAP3	-	
INBEH	IOX1, IOX2, IOX3, IGE1, IGE2, IFI1, IFI2, IFI3, IGE1, IGE2, IGE3, ICH1, ICH2, ICH3, IAP1, IAP2, IAP3	-	

Appendix 3: Descriptive statistics single items

Note for all items

- ➔ N:
  - ◆ Valid: 111
  - ◆ Missing: 0
- ➔ Standard errors of Skewness: .299

Statistics

	Mean	Std. Deviation	Skewness	Min	Max
Control items					
GENDER	1.37	.503	.766	1	3
AGE	2.81	1.066	.571	1	5
EDU	3.38	.775	-.299	2	5
YEARS	2.05	1.327	1.017	1	5
Time items					

TEC1	2.86	1.013	-.204	1	5
TEC2	3.44	.849	-.448	1	5
TEC3	3.87	.821	-.362	2	5
TEC4	3.54	.902	-.312	1	5
TNO1	2.14	.980	.648	1	5
TNO2	2.68	.992	.295	1	5
TNO3	2.29	1.039	.484	1	5
TOP1	2.64	1.158	.421	1	5
TOP2	2.19	.910	.425	1	4
TOP3	1.95	.908	.905	1	5
TOP4	2.03	1.040	.983	1	5
TOF1	3.36	1.051	-.483	1	5
TOF2	3.14	1.094	-.165	1	5
TOF3	3.32	1.095	-.446	1	5
TOF4	3.44	1.006	-.218	1	5
TSB1	3.95	1.135	-.804	1	5
TSB2	3.88	1.326	-.924	1	5

TSB3	4.45	.839	-1.861	1	5
TSB4	4.09	1.083	-1.143	1	5
TAX1	2.29	.918	.539	1	5
TAX2	2.14	.958	.545	1	4
TAX3	2.06	1.056	.817	1	5
TAX4	1.82	1.037	1.067	1	5
TEN1	3.51	.903	-.229	1	5
TEN2	3.58	1.023	-.211	1	5
TEN3	3.51	.872	-.628	1	5
TQR1	2.95	1.034	.160	1	5
TQR2	2.95	1.021	-.065	1	5
TQR3	2.87	1.010	-.066	1	5
Innovative behaviour items					
IOX1	3.70	.920	-.368	1	5
IOX2	3.71	.898	-.314	2	5
IOX3	3.50	.893	-.170	1	5
IGE1	3.86	.819	-.537	2	5

IGE2	3.48	1.017	-.229	1	5
IFI1	3.40	1.012	-.275	1	5
IFI2	3.46	.942	-.180	1	5
IFI3	3.55	.941	-.179	1	5
ICH1	3.58	.968	-.282	1	5
ICH2	3.32	1.018	-.354	1	5
ICH3	3.46	.892	-.423	1	5
IAP1	3.68	.876	-.471	2	5
IAP2	3.00	1.104	.000	1	5
IAP3	3.23	.997	-.356	1	5

Appendix 4: Correlation within items

The full 32x98 table can be found at: **https://outdo.se/TimePercInnBehaCorrItems.htm**

Appendix 5: Reliability and Factor Analysis

A) Scale of the study

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,709

Bartlett's Test of Sphericity	Approx. Chi-Square	2850,171
	df	903
	Sig.	,000

Communalities

	Initial	Extraction
TEC1	1,000	,543
TEC2	1,000	,673
TEC3	1,000	,575
TEC4	1,000	,770
TNO1	1,000	,731
TNO2	1,000	,675
TNO3	1,000	,727
TOP1	1,000	,665
TOP2	1,000	,752
TOP3	1,000	,732
TOP4	1,000	,591

TOF1	1,000	,828
TOF2	1,000	,837
TOF3	1,000	,721
TOF4	1,000	,805
TSB1	1,000	,601
TSB2	1,000	,472
TSB3	1,000	,625
TSB4	1,000	,669
TAX1	1,000	,720
TAX2	1,000	,781
TAX3	1,000	,672
TAX4	1,000	,686
TEN1	1,000	,738
TEN2	1,000	,747
TEN3	1,000	,598
TQR1	1,000	,841
TQR2	1,000	,802

TQR3	1,000	,697
IOX1	1,000	,760
IOX2	1,000	,669
IOX3	1,000	,625
IGE1	1,000	,530
IGE2	1,000	,693
IFI1	1,000	,612
IFI2	1,000	,625
IFI3	1,000	,677
ICH1	1,000	,653
ICH2	1,000	,721
ICH3	1,000	,630
IAP1	1,000	,754
IAP2	1,000	,777
IAP3	1,000	,741

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance
1	8,614	20,032	20,032	8,614	20,032	20,032	7,564	17,590
2	5,046	11,736	31,768	5,046	11,736	31,768	3,246	7,548
3	3,637	8,458	40,226	3,637	8,458	40,226	3,035	7,058
4	2,794	6,498	46,724	2,794	6,498	46,724	3,033	7,053
5	2,301	5,351	52,074	2,301	5,351	52,074	2,840	6,606
6	1,812	4,213	56,288	1,812	4,213	56,288	2,711	6,304
7	1,563	3,635	59,923	1,563	3,635	59,923	2,254	5,241
8	1,413	3,286	63,209	1,413	3,286	63,209	2,010	4,674
9	1,341	3,119	66,328	1,341	3,119	66,328	1,562	3,633
10	1,219	2,835	69,163	1,219	2,835	69,163	1,486	3,455
11	,996	2,317	71,480					
12	,945	2,199	73,678					
13	,912	2,121	75,800					
14	,831	1,932	77,732					

15	,771	1,793	79,525					
16	,709	1,648	81,173					
17	,652	1,517	82,690					
18	,603	1,402	84,092					
19	,559	1,299	85,392					
20	,529	1,231	86,623					
21	,505	1,174	87,797					
22	,484	1,125	88,922					
23	,462	1,075	89,996					
24	,426	,990	90,987					
25	,385	,894	91,881					
26	,355	,826	92,707					
27	,319	,741	93,448					
28	,300	,697	94,144					
29	,290	,675	94,820					
30	,267	,620	95,440					
31	,256	,595	96,035					

32	,232	,540	96,574					
33	,208	,485	97,059					
34	,203	,473	97,532					
35	,177	,412	97,943					
36	,155	,361	98,304					
37	,148	,345	98,649					
38	,138	,320	98,969					
39	,122	,283	99,252					
40	,100	,233	99,485					
41	,098	,228	99,713					
42	,076	,177	99,890					
43	,047	,110	100,000					

Rotated Component Matrix[a]

	Component									
	1	2	3	4	5	6	7	8	9	10
IOX1	,833									
IAP3	,827									

IAP2	,805									-,320
IAP1	,766									
IFI1	,744									
IFI2	,729									
IOX2	,712									
ICH3	,703									
ICH2	,700									
ICH1	,698									
IGE2	,647									,353
IGE1	,595									
IFI3	,592									,518
IOX3	,557								,315	
TOF1		,893								
TOF2		,880								
TOF4		,854								
TOF3		,747								
TAX2			,783							

TAX1			,780							
TAX3			,764							
TAX4			,759							
TEC4				,819						
TNO1				-,756						
TEC3				,712						
TEC2				,675			,319			
TOP2					,798					
TOP1					,736					
TOP3			,373		,719					
TOP4					,579					
TQR1						,883				
TQR2						,865				
TQR3						,750				
TSB4							,755			
TSB1							,649			
TSB2							,639			

TEC1				,371			,439			
TEN2								,783		
TEN1								,782		
TSB3					-,316			,564		
TNO3									,746	
TNO2				-,377					,625	
TEN3							,336			,598

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 9 iterations.

Component Transformation Matrix

Component	1	2	3	4	5	6	7	8	9
1	,903	,043	-,183	-,255	-,143	,144	-,141	-,048	,105
2	,147	,567	,513	,101	,572	,144	-,164	,079	,041
3	,229	,325	-,263	,600	-,097	-,416	,278	,325	-,209
4	,195	-,417	,336	,321	,012	,528	,514	,122	-,116

5	,114	-,340	,342	-,381	,160	-,528	,120	,519	,056
6	-,224	,430	-,110	-,397	-,289	,382	,231	,470	-,076
7	-,027	,102	-,218	-,093	,315	-,102	,587	-,313	,565
8	,017	,205	,581	,076	-,647	-,205	,077	-,276	,243
9	,074	,192	,013	-,266	-,057	-,058	,360	,007	-,038
10	-,054	-,077	-,085	,272	-,110	,160	-,253	,454	,736

Component Transformation Matrix

Component	10
1	,098
2	-,001
3	,065
4	,014
5	,133
6	,293
7	,249
8	,108
9	-,865

10	-,244

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
IOX1	,801				
IAP3	,780				
IFI1	,760				
IAP2	,749				
IFI2	,741				
IGE2	,722				
IOX2	,717				
IAP1	,717				
ICH1	,705				
ICH2	,682	-,302			

IFI3	,671				
ICH3	,659				
IOX3	,632				
IGE1	,624				
TAX2		,795			
TAX4		,761			
TOP3		,721		,325	
TAX3		,708			
TOP2		,688			
TAX1		,648			
TOP1		,586			
TOP4		,501		,362	
TEC4			,763		
TEC2			,707		
TNO1			-,695		
TNO2			-,602		
TEC3			,586		

TSB4			,488	-,406	
TNO3			-,461		
TEC1			,438		
TSB1			,416	-,387	
TSB2			,409	-,392	
TSB3			,326		
TOF3				,801	
TOF2				,782	
TOF4				,745	
TOF1				,744	
TQR2					,790
TQR1					,763
TEN1					-,631
TQR3					,629
TEN2		,332			-,598
TEN3					-,417

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 7 iterations.

Component Transformation Matrix

Component	1	2	3	4	5
1	,915	-,227	-,316	,047	,099
2	,168	,781	,033	,598	,058
3	,226	-,265	,728	,292	-,514
4	,273	,370	,537	-,623	,337
5	,097	,363	-,285	-,410	-,781

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Reliability Statistics

Cronbach's Alpha	N of Items
,772	43

B) Time scale
- **All**

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.695	.698	29

Cronbach's Alpha if Item Deleted

TEC1	.698
TEC2	.688
TEC3	.698
TEC4	.684
TNO1	.717
TNO2	.715
TNO3	.702

TOP1	.669
TOP2	.670
TOP3	.665
TOP4	.672
TOF1	.674
TOF2	.669
TOF3	.678
TOF4	.668
TSB1	.708
TSB2	.705
TSB3	.696
TSB4	.698
TAX1	.678
TAX2	.665
TAX3	.676
TAX4	.668
TEN1	.697

TEN2	.687
TEN3	.695
TQR1	.697
TQR2	.699
TQR3	.691

- TMA

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.768	.778	11

Cronbach's Alpha if Item Deleted

TEC1	TEC2	TEC3	TEC4	TNO1	TNO2	TNO3	TSB1	TSB2	TSB3	TSB4
.761	.735	.752	.731	.735	.738	.759	.758	.768	.771	.746

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.688

Bartlett's Test of Sphericity	Approx. Chi-Square	342.453
	df	45
	Sig.	.000

Communalities

	Initial	Extraction
TEC1	1.000	.563
TEC2	1.000	.691
TEC3	1.000	.543
TEC4	1.000	.743
TNO1	1.000	.642
TNO2	1.000	.625
TNO3	1.000	.762
TSB1	1.000	.586
TSB2	1.000	.502
TSB4	1.000	.677

Extraction Method: Principal Component Analysis.

- **TOF**

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.893	.894	4

Cronbach's Alpha if Item Deleted

TOF1	TOF2	TOF3	TOF4
.853	.837	.899	.857

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.720
Bartlett's Test of Sphericity	Approx. Chi-Square	212.365
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
TOF1	1.000	.836
TOF2	1.000	.885
TOF4	1.000	.773

Extraction Method: Principal Component Analysis.

- TPX

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.860	.863	8

Cronbach's Alpha if Item Deleted

TOP1	TOP2	TOP3	TOP4	TAX1	TAX2	TAX3	TAX4
.850	.838	. 831	.856	. 850	.831	.848	.835

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.835

Bartlett's Test of Sphericity	Approx. Chi-Square	408.157
	df	28
	Sig.	.000

Communalities

	Initial	Extraction
TOP1	1.000	.659
TOP2	1.000	.772
TOP3	1.000	.763
TOP4	1.000	.492
TAX1	1.000	.638
TAX2	1.000	.747
TAX3	1.000	.654
TAX4	1.000	.713

Extraction Method: Principal Component Analysis.

- **TEQ**

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.745	.742	6

Cronbach's Alpha if Item Deleted

TEN1	TEN2	TEN3	TQR1	TQR2	TQR3
.711	.744	.755	.665	.655	.708

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.653
Bartlett's Test of Sphericity	Approx. Chi-Square	240.458
	df	10
	Sig.	.000

Communalities

	Initial	Extraction
TQR1	1.000	.851
TQR2	1.000	.813

TQR3	1.000	.705
TEN1Rev	1.000	.803
TEN2Rev	1.000	.840

Extraction Method: Principal Component Analysis.

C) Innovative behaviour scale

- INBEH

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.931	.932	14

Cronbach's Alpha if Item Deleted

IOX1	IOX2	IOX3	IAP1	IAP2	IAP3	IGE1	IGE2	IFI1	IFI2	IFI3	ICH1	ICH2	ICH3
.923	.926	.931	.926	.927	.924	.929	.926	.926	.925	.928	.927	.926	.927

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.903
Bartlett's Test of Sphericity	Approx. Chi-Square	952.272
	df	91
	Sig.	.000

Communalities

	Initial	Extraction
IAP1	1.000	.702
IAP2	1.000	.680
IAP3	1.000	.662
IOX1	1.000	.684
IOX2	1.000	.577
IOX3	1.000	.643
IGE1	1.000	.406
IGE2	1.000	.702
IFI1	1.000	.580
IFI2	1.000	.577

IFI3	1.000	.654
ICH1	1.000	.518
ICH2	1.000	.566
ICH3	1.000	.613

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.453	53.239	53.239	7.453	53.239	53.239	5.049	36.063	36.063
2	1.109	7.922	61.161	1.109	7.922	61.161	3.514	25.099	61.161
3	.995	7.107	68.268						
4	.796	5.689	73.957						
5	.690	4.929	78.885						
6	.569	4.061	82.947						
7	.453	3.238	86.184						
8	.382	2.731	88.916						

9	.349	2.490	91.406							
10	.307	2.190	93.596							
11	.298	2.131	95.727							
12	.232	1.656	97.383							
13	.192	1.372	98.755							
14	.174	1.245	100.000							

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
IAP1	.763	-.345
IAP2	.738	-.368
IAP3	.795	-.175
IOX1	.826	-.043
IOX2	.735	.190
IOX3	.584	.549

Rotated Component Matrix[a]

	Component	
	1	2
IAP1	.814	.198
IAP2	.808	.164
IAP3	.734	.352
IOX1	.677	.474
IOX2	.462	.603
IOX3	.122	.793

IGE1	.628	.108
IGE2	.741	.392
IFI1	.752	-.123
IFI2	.758	-.052
IFI3	.675	.446
ICH1	.720	.016
ICH2	.747	-.091
ICH3	.720	-.307

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

IGE1	.429	.472
IGE2	.343	.765
IFI1	.668	.366
IFI2	.629	.425
IFI3	.257	.767
ICH1	.557	.455
ICH2	.645	.388
ICH3	.756	.201

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization
a. Rotation converged in 3 iterations.

Component Transformation Matrix

Component	1	2
1	.788	.616
2	-.616	.788

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

- IOX

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.795	3

Cronbach's Alpha if Item Deleted

IOX1	IOX2	IOX3
.677	.661	.814

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.678
Bartlett's Test of Sphericity	Approx. Chi-Square	107.657
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
IOX1	1.000	.759
IOX2	1.000	.772
IOX3	1.000	.602

Extraction Method: Principal Component Analysis.

- IGE

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.584	.594	2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.500
Bartlett's Test of Sphericity	Approx. Chi-Square	21.294
	df	1

	Sig.	.000

Communalities

	Initial	Extraction
IGE1	1.000	.711
IGE2	1.000	.711

Extraction Method: Principal Component Analysis.

- IFI

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.800	.800	3

Cronbach's Alpha if Item Deleted

IFI1	IFI2	IFI3
.729	.626	.812

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.664
Bartlett's Test of Sphericity	Approx. Chi-Square	112.964
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
IFI1	1.000	.721
IFI2	1.000	.809
IFI3	1.000	.619

Extraction Method: Principal Component Analysis.

- ICH

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.807	.807	3

Cronbach's Alpha if Item Deleted

ICH1	ICH2	ICH3
.798	.647	.748

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.677
Bartlett's Test of Sphericity	Approx. Chi-Square	114.222
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
ICH1	1.000	.650
ICH2	1.000	.805
ICH3	1.000	.714

Extraction Method: Principal Component Analysis.

- **IAP**

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.857	.859	3

Cronbach's Alpha if Item Deleted

IAP1	IAP2	IAP3
.845	.781	.761

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.724
Bartlett's Test of Sphericity	Approx. Chi-Square	152.869
	df	3
	Sig.	.000

Communalities

	Initial	Extraction
IAP1	1.000	.730

IAP2	1.000	.800
IAP3	1.000	.812

Extraction Method: Principal Component Analysis.

Appendix 6: Descriptive statistics dimensions

Statistics

	Mean	Std. Deviation	Skewness	Min	Max
TMA	3.6532	.58525	-.439	1.70	4.90
TOF	3.3153	.95857	-.260	1.00	5.00
TPX	2.1396	.71126	-.647	1.00	4.25
TEQ	2.7369	.71043	.065	1.00	4.60
IOX	3.7072	.83521	-.265	2.00	5.00
IGE	3.6667	.77557	-.188	1.50	5.00
IFI	3.4685	.81573	-.194	1.33	5.00
ICH	3.4505	.81606	-.288	1.33	5.00

IAP	3.3003	.87842	-.313	1.33	5.00
INBEH	3.5186	.70270	-.224	1.77	5.00

Appendix 7: Correlation within dimensions

N= 111

Correlations

			TMA	TOF	TPX	TEQ	IOX	IGE	IFI	ICH	IAP	INBEH
Spearman's rho	TMA	Correlation Coefficient	1.000	-.003	.021	-.199*	-.283**	-.264**	-.302**	-.303**	-.232*	-.338**
		Sig. (2-tailed)	.	.972	.829	.036	.003	.005	.001	.001	.014	.000
	TOF	Correlation Coefficient	-.003	1.000	.223*	-.031	.097	.171	.198*	.125	.063	.137
		Sig. (2-tailed)	.972	.	.019	.746	.313	.073	.037	.190	.509	.153
	TPX	Correlation Coefficient	.021	.223*	1.000	.034	-.268**	-.261**	-.156	-.226*	-.171	-.266**
		Sig. (2-tailed)	.829	.019	.	.725	.004	.006	.103	.017	.073	.005
	TEQ	Correlation Coefficient	-.199*	-.031	.034	1.000	.083	.194*	.112	.058	.052	.102
		Sig. (2-tailed)	.036	.746	.725	.	.387	.041	.241	.546	.590	.286
	IOX	Correlation Coefficient	-.283**	.097	-.268**	.083	1.000	.694**	.649**	.590**	.679**	.857**
		Sig. (2-tailed)	.003	.313	.004	.387	.	.000	.000	.000	.000	.000

IGE	Correlation Coefficient	-.264**	.171	-.261**	.194*	.694**	1.000	.683**	.594**	.510**	.818**
	Sig. (2-tailed)	.005	.073	.006	.041	.000	.	.000	.000	.000	.000
IFI	Correlation Coefficient	-.302**	.198*	-.156	.112	.649**	.683**	1.000	.700**	.600**	.864**
	Sig. (2-tailed)	.001	.037	.103	.241	.000	.000	.	.000	.000	.000
ICH	Correlation Coefficient	-.303**	.125	-.226*	.058	.590**	.594**	.700**	1.000	.655**	.831**
	Sig. (2-tailed)	.001	.190	.017	.546	.000	.000	.000	.	.000	.000
IAP	Correlation Coefficient	-.232*	.063	-.171	.052	.679**	.510**	.600**	.655**	1.000	.802**
	Sig. (2-tailed)	.014	.509	.073	.590	.000	.000	.000	.000	.	.000
INBEH	Correlation Coefficient	-.338**	.137	-.266**	.102	.857**	.818**	.864**	.831**	.802**	1.000
	Sig. (2-tailed)	.000	.153	.005	.286	.000	.000	.000	.000	.000	.

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix 8: Multilinear Regression Analysis - INBEH

A) TMA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TMA[c]	.	Enter

a. Dependent Variable: INBEH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1[a]	.198	.090	.67016	.198	1.842	13	97	.047
2[b]	.278	.173	.63893	.081	10.711	1	96	.001

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	15.126	14	1.080	2.647	.003[c]
	Residual	39.191	96	.408		
	Total	54.317	110			

a. Dependent Variable: INBEH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.675	.146		25.189	.000
	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591

	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004
	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598
	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244
2	(Constant)	5.075	.450		11.280	.000
	GENDER2	-.108	.136	-.073	-.792	.430
	GENDER3	-1.384	.675	-.187	-2.049	.043
	AGE1	-.239	.303	-.071	-.789	.432
	AGE3	-.002	.189	-.001	-.011	.992
	AGE4	.109	.201	.062	.542	.589
	AGE5	.124	.287	.048	.432	.667

	EDU2	.209	.219	.105	.957	.341
	EDU3	-.394	.146	-.272	-2.704	.008
	EDU5	.280	.342	.075	.819	.415
	YEARS2	.129	.177	.068	.725	.470
	YEARS3	-.174	.205	-.094	-.848	.398
	YEARS4	-.041	.300	-.014	-.138	.891
	YEARS5	-.420	.273	-.172	-1.541	.126
	TMA	-.376	.115	-.313	-3.273	.001

a. Dependent Variable: INBEH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TMA	-.313[b]	-3.273	.001	-.317	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TOF

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TOF[c]	.	Enter

a. Dependent Variable: INBEH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

				Change Statistics				
Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1 [a]	.198	.090	.67016	.198	1.842	13	97	.047
2 [b]	.234	.122	.65827	.036	4.535	1	96	.036

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	12.719	14	.908	2.097	.018[c]
	Residual	41.598	96	.433		
	Total	54.317	110			

a. Dependent Variable: INBEH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.675	.146		25.189	.000

	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591
	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004
	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598
	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244
2	(Constant)	3.091	.309		9.994	.000
	GENDER2	-.156	.138	-.106	-1.127	.263
	GENDER3	-1.257	.695	-.170	-1.810	.074
	AGE1	-.191	.312	-.056	-.611	.543

	AGE3	.191	.189	.112	1.011	.315
	AGE4	.284	.209	.162	1.356	.178
	AGE5	.329	.300	.128	1.097	.275
	EDU2	.166	.225	.083	.738	.462
	EDU3	-.439	.149	-.303	-2.948	.004
	EDU5	.162	.351	.043	.464	.644
	YEARS2	.212	.185	.112	1.144	.255
	YEARS3	-.081	.211	-.044	-.386	.700
	YEARS4	.051	.314	.018	.162	.872
	YEARS5	-.278	.281	-.114	-.991	.324
	TOF	.154	.073	.211	2.130	.036

a. Dependent Variable: INBEH

Excluded Variables[a]

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance

1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOF	.211[b]	2.130	.036	.212	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TPX[c]	.	Enter

a. Dependent Variable: INBEH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

				Change Statistics				
Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1 [a]	.198	.090	.67016	.198	1.842	13	97	.047
2 [B]	.229	.117	.66032	.031	3.910	1	96	.051

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	12.459	14	.890	2.041	.022[c]
	Residual	41.858	96	.436		
	Total	54.317	110			

a. Dependent Variable: INBEH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.675	.146		25.189	.000
	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591
	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004
	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598
	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244

2	(Constant)	4.054	.240		16.915	.000
	GENDER2	-.157	.139	-.107	-1.133	.260
	GENDER3	-1.172	.698	-.158	-1.678	.097
	AGE1	-.108	.314	-.032	-.344	.731
	AGE3	.211	.190	.124	1.110	.270
	AGE4	.127	.209	.073	.609	.544
	AGE5	.142	.297	.056	.479	.633
	EDU2	.223	.228	.112	.982	.329
	EDU3	-.386	.153	-.266	-2.527	.013
	EDU5	.202	.352	.054	.573	.568
	YEARS2	.125	.184	.066	.679	.499
	YEARS3	-.102	.211	-.055	-.482	.631
	YEARS4	-.140	.311	-.049	-.450	.654
	YEARS5	-.304	.281	-.124	-1.082	.282
	TPX	-.192	.097	-.194	-1.977	.051

a. Dependent Variable: INBEH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TPX	-.194[b]	-1.977	.051	-.198	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TEQ[c]	.	Enter

a. Dependent Variable: INBEH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

				Change Statistics				
Model	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1[a]	.198	.090	.67016	.198	1.842	13	97	.047

2 [b]	.205	.089	.67054	.007	.889	1	96	.348

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	11.153	14	.797	1.772	.054[c]
	Residual	43.164	96	.450		
	Total	54.317	110			

a. Dependent Variable: INBEH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	3.675	.146		25.189	.000
	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591
	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004
	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598

	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244
2	(Constant)	3.434	.294		11.683	.000
	GENDER2	-.184	.141	-.126	-1.308	.194
	GENDER3	-1.270	.708	-.172	-1.795	.076
	AGE1	-.212	.321	-.063	-.661	.510
	AGE3	.158	.192	.093	.824	.412
	AGE4	.193	.209	.110	.921	.359
	AGE5	.194	.300	.076	.647	.519
	EDU2	.157	.229	.079	.684	.496
	EDU3	-.424	.154	-.293	-2.758	.007
	EDU5	.177	.357	.047	.494	.622
	YEARS2	.126	.188	.067	.674	.502
	YEARS3	-.104	.214	-.056	-.486	.628
	YEARS4	-.086	.314	-.030	-.274	.785
	YEARS5	-.329	.285	-.135	-1.153	.252
	TEQ	.088	.094	.089	.943	.348

a. Dependent Variable: INBEH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TEQ	.089[b]	.943	.348	.096	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 9: Multilinear Regression Analysis - IOX

A) TMA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TMA[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Mo	R	R	Adjusted	Std. Error	Change Statistics

del		Square	R Square	of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.530[b]	.281	.176	.75804	.035	4.702	1	96	.033

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	21.571	14	1.541	2.681	.002[c]
	Residual	55.163	96	.575		
	Total	76.734	110			

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160
	EDU3	-.383	.175	-.222	-2.188	.031
	EDU5	.027	.411	.006	.065	.948

	YEARS2	.444	.214	.197	2.074	.041
	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256
2	(Constant)	4.876	.534		9.133	.000
	GENDER2	-.217	.161	-.125	-1.347	.181
	GENDER3	-2.306	.801	-.262	-2.877	.005
	AGE1	-.353	.360	-.088	-.982	.329
	AGE3	.021	.225	.011	.095	.924
	AGE4	.216	.239	.104	.905	.368
	AGE5	-.013	.340	-.004	-.039	.969
	EDU2	.410	.259	.173	1.580	.117
	EDU3	-.341	.173	-.198	-1.974	.051
	EDU5	.120	.406	.027	.295	.769
	YEARS2	.428	.210	.190	2.036	.045
	YEARS3	.100	.243	.045	.410	.683
	YEARS4	-.114	.355	-.033	-.320	.750

	YEARS5	-.443	.324	-.153	-1.370	.174
	TMA	-.295	.136	-.207	-2.168	.033

a. Dependent Variable: IOX

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TMA	-.207[b]	-2.168	.033	-.216	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000

	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOX

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TFO

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOF[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.511[b]	.261	.154	.76835	.016	2.016	1	96	.159

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	20.059	14	1.433	2.427	.006[c]
	Residual	56.675	96	.590		
	Total	76.734	110			

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160
	EDU3	-.383	.175	-.222	-2.188	.031

	EDU5	.027	.411	.006	.065	.948
	YEARS2	.444	.214	.197	2.074	.041
	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256
2	(Constant)	3.321	.361		9.197	.000
	GENDER2	-.255	.162	-.147	-1.579	.118
	GENDER3	-2.206	.811	-.251	-2.720	.008
	AGE1	-.315	.364	-.079	-.864	.389
	AGE3	.173	.220	.085	.784	.435
	AGE4	.353	.244	.169	1.444	.152
	AGE5	.147	.350	.048	.419	.676
	EDU2	.376	.262	.159	1.432	.155
	EDU3	-.377	.174	-.219	-2.167	.033
	EDU5	.027	.409	.006	.066	.948
	YEARS2	.493	.216	.219	2.285	.025
	YEARS3	.172	.246	.078	.700	.486

	YEARS4	-.042	.367	-.012	-.115	.908
	YEARS5	-.332	.328	-.114	-1.012	.314
	TOF	.120	.085	.138	1.420	.159

a. Dependent Variable: IOX

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOF	.138[b]	1.420	.159	.143	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000

	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOX

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TPX[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.527[b]	.278	.173	.75967	.032	4.268	1	96	.042

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	21.332	14	1.524	2.640	.003[c]
	Residual	55.402	96	.577		

Total	76.734	110				

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160

	EDU3	-.383	.175	-.222	-2.188	.031
	EDU5	.027	.411	.006	.065	.948
	YEARS2	.444	.214	.197	2.074	.041
	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256
2	(Constant)	4.231	.276		15.343	.000
	GENDER2	-.247	.160	-.142	-1.545	.126
	GENDER3	-2.102	.803	-.239	-2.617	.010
	AGE1	-.224	.362	-.056	-.620	.537
	AGE3	.209	.219	.104	.956	.341
	AGE4	.201	.241	.096	.836	.405
	AGE5	-.027	.342	-.009	-.080	.937
	EDU2	.446	.262	.188	1.703	.092
	EDU3	-.309	.176	-.180	-1.761	.081
	EDU5	.074	.405	.017	.184	.855
	YEARS2	.415	.211	.184	1.967	.052

	YEARS3	.161	.243	.073	.664	.508
	YEARS4	-.218	.358	-.064	-.610	.543
	YEARS5	-.339	.323	-.117	-1.050	.296
	TPX	-.231	.112	-.197	-2.066	.042

a. Dependent Variable: IOX

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TPX	-.197[b]	-2.066	.042	-.206	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000

	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOX

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TEQ[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.498[b]	.248	.138	.77554	.002	.208	1	96	.649

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	18.994	14	1.357	2.256	.011[c]
	Residual	57.740	96	.601		

	Total	76.734	110			

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160

	EDU3	-.383	.175	-.222	-2.188	.031
	EDU5	.027	.411	.006	.065	.948
	YEARS2	.444	.214	.197	2.074	.041
	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256
2	(Constant)	3.640	.340		10.707	.000
	GENDER2	-.276	.163	-.158	-1.696	.093
	GENDER3	-2.214	.819	-.252	-2.705	.008
	AGE1	-.322	.371	-.080	-.870	.387
	AGE3	.148	.222	.073	.668	.505
	AGE4	.283	.242	.136	1.169	.245
	AGE5	.046	.347	.015	.131	.896
	EDU2	.370	.265	.156	1.396	.166
	EDU3	-.370	.178	-.215	-2.081	.040
	EDU5	.035	.413	.008	.084	.933
	YEARS2	.432	.217	.191	1.990	.049

	YEARS3	.152	.248	.069	.615	.540
	YEARS4	-.146	.364	-.043	-.403	.688
	YEARS5	-.372	.330	-.128	-1.129	.262
	TEQ	.049	.108	.042	.457	.649

a. Dependent Variable: IOX

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TEQ	.042[b]	.457	.649	.047	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000

	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOX

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 10: Multilinear Regression Analysis - IGE

A) TMA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TMA[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.485[b]	.235	.124	.72603	.057	7.180	1	96	.009

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.778	13	.906	1.616	.094[b]
	Residual	54.388	97	.561		

	Total	66.167	110			
2	Regression	15.563	14	1.112	2.109	.018[c]
	Residual	50.603	96	.527		
	Total	66.167	110			

a. Dependent Variable: IGE

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063
	AGE1	-.004	.355	-.001	-.012	.991
	AGE3	.166	.214	.089	.776	.439

	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539
	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339
2	(Constant)	5.135	.511		10.043	.000
	GENDER2	-.179	.154	-.111	-1.159	.249
	GENDER3	-1.602	.767	-.196	-2.087	.040
	AGE1	-.068	.345	-.018	-.197	.844
	AGE3	.013	.215	.007	.061	.952
	AGE4	.342	.229	.177	1.495	.138
	AGE5	.258	.326	.091	.792	.430
	EDU2	.080	.249	.036	.321	.749

	EDU3	-.389	.165	-.243	-2.350	.021
	EDU5	.254	.389	.061	.653	.515
	YEARS2	.109	.202	.052	.543	.589
	YEARS3	-.327	.233	-.159	-1.405	.163
	YEARS4	-.108	.340	-.034	-.318	.751
	YEARS5	-.386	.310	-.143	-1.246	.216
	TMA	-.350	.130	-.264	-2.680	.009

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000

	TMA	-.264[b]	-2.680	.009	-.264	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TOF

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOF[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.470[b]	.221	.108	.73259	.043	5.340	1	96	.023

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.778	13	.906	1.616	.094[b]

	Residual	54.388	97	.561		
	Total	66.167	110			
2	Regression	14.645	14	1.046	1.949	.030[c]
	Residual	51.522	96	.537		
	Total	66.167	110			

a. Dependent Variable: IGE

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063
	AGE1	-.004	.355	-.001	-.012	.991

	AGE3	.166	.214	.089	.776	.439
	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539
	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339
2	(Constant)	3.127	.344		9.085	.000
	GENDER2	-.217	.154	-.134	-1.411	.162
	GENDER3	-1.483	.773	-.182	-1.918	.058
	AGE1	-.028	.347	-.007	-.080	.936
	AGE3	.200	.210	.107	.953	.343
	AGE4	.529	.233	.273	2.268	.026
	AGE5	.482	.333	.170	1.444	.152

	EDU2	.040	.250	.018	.160	.873
	EDU3	-.429	.166	-.268	-2.587	.011
	EDU5	.144	.390	.035	.370	.713
	YEARS2	.204	.206	.097	.992	.324
	YEARS3	-.232	.234	-.113	-.990	.325
	YEARS4	.012	.349	.004	.035	.972
	YEARS5	-.239	.313	-.088	-.763	.447
	TOF	.186	.081	.230	2.311	.023

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TOF	.230[b]	2.311	.023	.230	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TPX[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.443[b]	.196	.079	.74437	.018	2.158	1	96	.145

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.

1	Regression	11.778	13	.906	1.616	.094[b]
	Residual	54.388	97	.561		
	Total	66.167	110			
2	Regression	12.974	14	.927	1.673	.074[c]
	Residual	53.192	96	.554		
	Total	66.167	110			

a. Dependent Variable: IGE

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063

	AGE1	-.004	.355	-.001	-.012	.991
	AGE3	.166	.214	.089	.776	.439
	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539
	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339
2	(Constant)	4.150	.270		15.359	.000
	GENDER2	-.227	.157	-.141	-1.451	.150
	GENDER3	-1.413	.787	-.173	-1.795	.076
	AGE1	.048	.354	.013	.136	.892
	AGE3	.207	.214	.110	.965	.337
	AGE4	.366	.236	.189	1.550	.124

	AGE5	.282	.335	.100	.840	.403
	EDU2	.087	.257	.040	.340	.735
	EDU3	-.387	.172	-.242	-2.249	.027
	EDU5	.177	.397	.043	.446	.657
	YEARS2	.108	.207	.052	.522	.603
	YEARS3	-.261	.238	-.127	-1.098	.275
	YEARS4	-.194	.351	-.061	-.553	.581
	YEARS5	-.281	.317	-.104	-.887	.378
	TPX	-.161	.109	-.148	-1.469	.145

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TPX	-.148[b]	-1.469	.145	-.148	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TEQ[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.449[b]	.202	.086	.74161	.024	2.891	1	96	.092

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.778	13	.906	1.616	.094[b]

	Residual	54.388	97	.561		
	Total	66.167	110			
2	Regression	13.368	14	.955	1.736	.061[c]
	Residual	52.798	96	.550		
	Total	66.167	110			

a. Dependent Variable: IGE

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063
	AGE1	-.004	.355	-.001	-.012	.991

	AGE3	.166	.214	.089	.776	.439
	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539
	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339
2	(Constant)	3.352	.325		10.311	.000
	GENDER2	-.255	.156	-.157	-1.637	.105
	GENDER3	-1.508	.783	-.185	-1.926	.057
	AGE1	-.086	.355	-.023	-.242	.809
	AGE3	.157	.212	.084	.742	.460
	AGE4	.415	.232	.214	1.790	.077
	AGE5	.307	.332	.109	.925	.358

	EDU2	.023	.253	.011	.093	.926
	EDU3	-.393	.170	-.246	-2.311	.023
	EDU5	.172	.395	.042	.436	.664
	YEARS2	.083	.207	.040	.402	.689
	YEARS3	-.252	.237	-.123	-1.066	.289
	YEARS4	-.162	.348	-.051	-.465	.643
	YEARS5	-.295	.315	-.110	-.937	.351
	TEQ	.176	.104	.161	1.700	.092

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000

	TEQ	.161[b]	1.700	.092	.171	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 11: Multilinear Regression Analysis - IFI

A) TMA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TMA[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.476[b]	.227	.114	.76778	.068	8.464	1	96	.005

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]

	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	16.604	14	1.186	2.012	.024[c]
	Residual	56.591	96	.589		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847

	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840
	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530
2	(Constant)	5.202	.541		9.620	.000
	GENDER2	-.120	.163	-.070	-.734	.465
	GENDER3	-1.830	.812	-.213	-2.255	.026
	AGE1	-.146	.365	-.037	-.401	.689
	AGE3	-.014	.228	-.007	-.060	.952
	AGE4	.039	.242	.019	.162	.872
	AGE5	.036	.345	.012	.104	.918

	EDU2	.116	.263	.050	.442	.660
	EDU3	-.459	.175	-.273	-2.626	.010
	EDU5	.222	.411	.051	.539	.591
	YEARS2	.023	.213	.010	.108	.914
	YEARS3	-.206	.246	-.096	-.839	.404
	YEARS4	-.084	.360	-.025	-.234	.816
	YEARS5	-.306	.328	-.108	-.933	.353
	TMA	-.401	.138	-.288	-2.909	.005

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TMA	-.288[b]	-2.909	.005	-.285	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFI

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TOF

Variables Entered/Removeda

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TOF[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.457[b]	.209	.093	.77678	.050	6.058	1	96	.016

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]

	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	15.270	14	1.091	1.808	.048[c]
	Residual	57.925	96	.603		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847

	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840
	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530
2	(Constant)	2.909	.365		7.971	.000
	GENDER2	-.165	.163	-.097	-1.007	.316
	GENDER3	-1.694	.820	-.197	-2.067	.041
	AGE1	-.100	.368	-.025	-.271	.787
	AGE3	.200	.222	.102	.901	.370
	AGE4	.251	.247	.123	1.017	.312
	AGE5	.290	.354	.097	.819	.415

	EDU2	.071	.265	.031	.266	.791
	EDU3	-.506	.176	-.301	-2.877	.005
	EDU5	.096	.414	.022	.231	.818
	YEARS2	.130	.218	.059	.597	.552
	YEARS3	-.098	.249	-.046	-.396	.693
	YEARS4	.052	.371	.015	.139	.890
	YEARS5	-.138	.331	-.048	-.415	.679
	TOF	.211	.086	.247	2.461	.016

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TOF	.247[b]	2.461	.016	.244	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFI

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TPX[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.410[b]	.168	.047	.79630	.010	1.115	1	96	.294

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]

	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	12.322	14	.880	1.388	.174[c]
	Residual	60.873	96	.634		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847

	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840
	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530
2	(Constant)	3.950	.289		13.665	.000
	GENDER2	-.182	.167	-.107	-1.089	.279
	GENDER3	-1.641	.842	-.191	-1.949	.054
	AGE1	-.033	.379	-.008	-.086	.932
	AGE3	.193	.229	.098	.843	.401
	AGE4	.089	.252	.043	.351	.726
	AGE5	.084	.359	.028	.235	.815

	EDU2	.106	.274	.046	.385	.701
	EDU3	-.477	.184	-.283	-2.589	.011
	EDU5	.121	.425	.028	.285	.776
	YEARS2	.029	.221	.013	.131	.896
	YEARS3	-.134	.254	-.062	-.528	.599
	YEARS4	-.162	.375	-.048	-.432	.667
	YEARS5	-.194	.339	-.068	-.573	.568
	TPX	-.124	.117	-.108	-1.056	.294

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000

	TPX	-.108[b]	-1.056	.294	-.107	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFI

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TEQ[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.409[b]	.168	.046	.79663	.009	1.037	1	96	.311

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]

	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	12.272	14	.877	1.381	.177[c]
	Residual	60.923	96	.635		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847

	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840
	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530
2	(Constant)	3.397	.349		9.726	.000
	GENDER2	-.202	.167	-.119	-1.211	.229
	GENDER3	-1.711	.841	-.199	-2.035	.045
	AGE1	-.125	.381	-.032	-.329	.743
	AGE3	.156	.228	.079	.687	.494
	AGE4	.127	.249	.063	.512	.610
	AGE5	.108	.357	.036	.302	.763

	EDU2	.058	.272	.025	.214	.831
	EDU3	-.487	.183	-.289	-2.666	.009
	EDU5	.114	.425	.026	.268	.789
	YEARS2	.016	.223	.007	.071	.944
	YEARS3	-.130	.254	-.060	-.511	.610
	YEARS4	-.134	.374	-.040	-.360	.720
	YEARS5	-.207	.339	-.073	-.611	.543
	TEQ	.113	.111	.099	1.018	.311

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TEQd	.099[b]	1.018	.311	.103	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFI

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 12: Multilinear Regression Analysis - ICH

A) TMA

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TMA[c]	.	Enter

a. Dependent Variable: ICH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.486[b]	.236	.125	.76333	.109	13.649	1	96	.000

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]

	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	17.318	14	1.237	2.123	.017[c]
	Residual	55.937	96	.583		
	Total	73.255	110			

a. Dependent Variable: ICH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000
	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629

	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660
	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	5.383	.538		10.013	.000
	GENDER2	.110	.162	.065	.678	.499
	GENDER3	-.299	.807	-.035	-.370	.712
	AGE1	-.279	.362	-.071	-.770	.443
	AGE3	.097	.226	.049	.427	.670
	AGE4	.153	.240	.075	.636	.526
	AGE5	.369	.343	.124	1.075	.285

	EDU2	.194	.261	.084	.742	.460
	EDU3	-.304	.174	-.181	-1.750	.083
	EDU5	.533	.409	.122	1.305	.195
	YEARS2	.072	.212	.033	.340	.734
	YEARS3	-.383	.245	-.178	-1.567	.120
	YEARS4	-.084	.358	-.025	-.235	.815
	YEARS5	-.680	.326	-.240	-2.086	.040
	TMA	-.507	.137	-.363	-3.694	.000

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TMA	-.363[b]	-3.694	.000	-.353	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TOF

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TOF[c]	.	Enter

a. Dependent Variable: ICH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.400[b]	.160	.037	.80069	.032	3.657	1	96	.059

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]

	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	11.709	14	.836	1.305	.219[c]
	Residual	61.546	96	.641		
	Total	73.255	110			

a. Dependent Variable: ICH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000
	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629

	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660
	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	2.856	.376		7.592	.000
	GENDER2	.039	.168	.023	.229	.819
	GENDER3	-.129	.845	-.015	-.153	.879
	AGE1	-.208	.379	-.053	-.548	.585
	AGE3	.349	.229	.177	1.523	.131
	AGE4	.367	.255	.180	1.439	.153
	AGE5	.614	.364	.206	1.685	.095

	EDU2	.135	.274	.058	.492	.624
	EDU3	-.368	.181	-.219	-2.029	.045
	EDU5	.374	.426	.086	.878	.382
	YEARS2	.168	.225	.076	.747	.457
	YEARS3	-.267	.256	-.124	-1.042	.300
	YEARS4	.008	.382	.002	.021	.984
	YEARS5	-.502	.342	-.177	-1.470	.145
	TOF	.169	.088	.198	1.912	.059

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TOF	.198[b]	1.912	.059	.192	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TPX[c]	.	Enter

a. Dependent Variable: ICH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.424[b]	.179	.060	.79133	.052	6.029	1	96	.016

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]

	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	13.140	14	.939	1.499	.126[c]
	Residual	60.115	96	.626		
	Total	73.255	110			

a. Dependent Variable: ICH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000
	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629

	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660
	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	4.058	.287		14.129	.000
	GENDER2	.046	.166	.027	.275	.784
	GENDER3	-.001	.837	.000	-.001	.999
	AGE1	-.093	.377	-.024	-.248	.805
	AGE3	.391	.228	.198	1.715	.090
	AGE4	.168	.251	.082	.669	.505
	AGE5	.384	.356	.129	1.077	.284

	EDU2	.221	.273	.096	.811	.419
	EDU3	-.285	.183	-.169	-1.559	.122
	EDU5	.433	.422	.099	1.026	.307
	YEARS2	.064	.220	.029	.289	.773
	YEARS3	-.285	.253	-.132	-1.126	.263
	YEARS4	-.226	.373	-.068	-.607	.545
	YEARS5	-.519	.337	-.183	-1.540	.127
	TPX	-.286	.116	-.249	-2.455	.016

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TPX	-.249[b]	-2.455	.016	-.243	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TEQ[c]	.	Enter

a. Dependent Variable: ICH

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.358[b]	.128	.001	.81570	.000	.022	1	96	.883

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]

	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	9.379	14	.670	1.007	.453[c]
	Residual	63.876	96	.665		
	Total	73.255	110			

a. Dependent Variable: ICH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000
	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629

	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660
	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	3.448	.358		9.643	.000
	GENDER2	.012	.171	.007	.071	.944
	GENDER3	-.134	.861	-.016	-.155	.877
	AGE1	-.194	.390	-.050	-.498	.619
	AGE3	.318	.233	.161	1.363	.176
	AGE4	.272	.255	.133	1.067	.289
	AGE5	.482	.365	.162	1.319	.190

	EDU2	.131	.279	.056	.469	.640
	EDU3	-.372	.187	-.221	-1.988	.050
	EDU5	.377	.435	.086	.867	.388
	YEARS2	.095	.228	.043	.417	.678
	YEARS3	-.300	.261	-.139	-1.151	.253
	YEARS4	-.132	.382	-.039	-.345	.731
	YEARS5	-.562	.347	-.198	-1.621	.108
	TEQ	.017	.114	.015	.147	.883

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TEQ	.015[b]	.147	.883	.015	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 13: Multilinear Regression Analysis - IAP

A) TMA

Variables Enteed/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TMA[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.426[b]	.182	.062	.85059	.039	4.540	1	96	.036

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]

	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	15.422	14	1.102	1.523	.118[c]
	Residual	69.457	96	.724		
	Total	84.879	110			

a. Dependent Variable: IAP

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479

	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909
	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	4.782	.599		7.983	.000
	GENDER2	-.132	.181	-.072	-.731	.467
	GENDER3	-.882	.899	-.095	-.981	.329
	AGE1	-.351	.404	-.083	-.869	.387
	AGE3	-.128	.252	-.060	-.506	.614
	AGE4	-.205	.268	-.093	-.764	.447
	AGE5	-.029	.382	-.009	-.077	.939

	EDU2	.247	.291	.099	.849	.398
	EDU3	-.475	.194	-.262	-2.450	.016
	EDU5	.274	.455	.058	.601	.550
	YEARS2	.010	.236	.004	.042	.967
	YEARS3	-.052	.273	-.022	-.189	.850
	YEARS4	.184	.399	.051	.462	.645
	YEARS5	-.287	.363	-.094	-.791	.431
	TMA	-.326	.153	-.217	-2.131	.036

a. Dependent Variable: IAP

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TMA	-.217[b]	-2.131	.036	-.213	.822
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAP

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TMA

B) TOF

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TOF[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.388[b]	.150	.026	.86681	.007	.814	1	96	.369

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]

	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	12.749	14	.911	1.212	.280[c]
	Residual	72.130	96	.751		
	Total	84.879	110			

a. Dependent Variable: IAP

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479

	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909
	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	3.242	.407		7.961	.000
	GENDER2	-.181	.182	-.099	-.995	.322
	GENDER3	-.773	.915	-.084	-.845	.400
	AGE1	-.302	.411	-.072	-.736	.463
	AGE3	.031	.248	.014	.124	.902
	AGE4	-.080	.276	-.036	-.289	.773
	AGE5	.112	.395	.035	.283	.778

	EDU2	.209	.296	.084	.705	.483
	EDU3	-.517	.196	-.285	-2.632	.010
	EDU5	.171	.462	.037	.371	.711
	YEARS2	.063	.244	.026	.257	.798
	YEARS3	.019	.277	.008	.067	.947
	YEARS4	.225	.414	.063	.544	.587
	YEARS5	-.181	.370	-.059	-.490	.625
	TOF	.086	.095	.094	.902	.369

a. Dependent Variable: IAP

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TOF	.094[b]	.902	.369	.092	.815
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAP

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOF

C) TPX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TPX[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.396[b]	.157	.034	.86345	.014	1.570	1	96	.213

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]

	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	13.307	14	.951	1.275	.237[c]
	Residual	71.572	96	.746		
	Total	84.879	110			

a. Dependent Variable: IAP

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479

	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909
	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	3.882	.313		12.388	.000
	GENDER2	-.176	.182	-.096	-.970	.334
	GENDER3	-.702	.913	-.076	-.769	.444
	AGE1	-.240	.411	-.057	-.583	.561
	AGE3	.055	.249	.026	.223	.824
	AGE4	-.186	.274	-.085	-.680	.498
	AGE5	-.011	.389	-.003	-.028	.978

	EDU2	.257	.298	.103	.863	.390
	EDU3	-.470	.200	-.260	-2.356	.021
	EDU5	.204	.461	.043	.443	.659
	YEARS2	.007	.240	.003	.031	.975
	YEARS3	.010	.276	.004	.038	.970
	YEARS4	.101	.407	.028	.248	.804
	YEARS5	-.188	.367	-.061	-.510	.611
	TPX	-.159	.127	-.129	-1.253	.213

a. Dependent Variable: IAP

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TPX	-.129[b]	-1.253	.213	-.127	.831
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAP

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TPX

D) TEQ

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TEQ[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.384[b]	.147	.023	.86821	.004	.501	1	96	.481

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]

	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	12.515	14	.894	1.186	.299[c]
	Residual	72.364	96	.754		
	Total	84.879	110			

a. Dependent Variable: IAP

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479

	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909
	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	3.334	.381		8.760	.000
	GENDER2	-.199	.182	-.109	-1.092	.278
	GENDER3	-.785	.916	-.085	-.857	.394
	AGE1	-.331	.415	-.079	-.798	.427
	AGE3	.011	.248	.005	.043	.966
	AGE4	-.133	.271	-.060	-.489	.626
	AGE5	.030	.389	.009	.077	.938

	EDU2	.201	.297	.081	.676	.500
	EDU3	-.499	.199	-.275	-2.506	.014
	EDU5	.185	.463	.039	.400	.690
	YEARS2	.006	.243	.002	.023	.982
	YEARS3	.010	.277	.004	.035	.972
	YEARS4	.144	.407	.040	.354	.724
	YEARS5	-.207	.369	-.068	-.561	.576
	TEQ	.086	.121	.069	.708	.481

a. Dependent Variable: IAP

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000

	TEQd	.069[b]	.708	.481	.072	.923
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAP

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TEQ

Appendix 14: Multilinear Regression Analysis – TAX

A. INBEH

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX[c]	.	Enter

a. Dependent Variable: INBEH
b. Tolerance = .000 limit reached.
c. All requested variables entered.

Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
1[a]	.198	.090	.67016	.198	1.842	13	97	.047
2[b]	.235	.123	.65798	.037	4.622	1	96	.034

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	12.754	14	.911	2.104	.018[c]

	Residual	41.563	96	.433		
	Total	54.317	110			

a. Dependent Variable: INBEH
b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.675	.146		25.189	.000
	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591
	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004

	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598
	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244
2	(Constant)	3.995	.207		19.332	.000
	GENDER2	-.152	.139	-.103	-1.094	.277
	GENDER3	-1.093	.699	-.148	-1.565	.121
	AGE1	-.115	.313	-.034	-.367	.714
	AGE3	.211	.189	.124	1.116	.267
	AGE4	.136	.207	.077	.654	.515
	AGE5	.133	.296	.052	.450	.654
	EDU2	.264	.230	.133	1.150	.253
	EDU3	-.375	.153	-.259	-2.459	.016
	EDU5	.213	.351	.057	.606	.546
	YEARS2	.144	.183	.076	.791	.431
	YEARS3	-.088	.210	-.047	-.419	.677

YEARS4	-.126	.309	-.044	-.409	.683
YEARS5	-.286	.280	-.117	-1.020	.310
TAX	-.180	.084	-.210	-2.150	.034

a. Dependent Variable: INBEH

Excluded Variables[a]

						Collinearity Statistics
Model		Beta In	t	Sig.	Partial Correlation	Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.210[b]	-2.150	.034	-.214	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000

	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH
b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

B. IOX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.537[b]	.289	.185	.75403	.043	5.776	1	96	.018

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	22.153	14	1.582	2.783	.002[c]
	Residual	54.581	96	.569		
	Total	76.734	110			

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160
	EDU3	-.383	.175	-.222	-2.188	.031
	EDU5	.027	.411	.006	.065	.948
	YEARS2	.444	.214	.197	2.074	.041

	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256
2	(Constant)	4.185	.237		17.671	.000
	GENDER2	-.238	.159	-.136	-1.497	.138
	GENDER3	-1.995	.801	-.227	-2.491	.014
	AGE1	-.228	.358	-.057	-.635	.527
	AGE3	.213	.217	.106	.983	.328
	AGE4	.206	.238	.099	.868	.388
	AGE5	-.044	.340	-.014	-.129	.897
	EDU2	.503	.263	.212	1.911	.059
	EDU3	-.291	.175	-.169	-1.665	.099
	EDU5	.092	.402	.021	.228	.820
	YEARS2	.439	.209	.194	2.096	.039
	YEARS3	.179	.241	.081	.744	.458
	YEARS4	-.206	.354	-.060	-.582	.562
	YEARS5	-.314	.321	-.108	-.977	.331

	TAX	-.230	.096	-.226	-2.403	.018

a. Dependent Variable: IOX

Excluded Variables[a]

						Collinearity Statistics
Model		Beta In	t	Sig.	Partial Correlation	Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.226[b]	-2.403	.018	-.238	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOXNEWCOMB

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

C. IGE

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.449[b]	.202	.085	.74182	.024	2.834	1	96	.096

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.778	13	.906	1.616	.094[b]
	Residual	54.388	97	.561		
	Total	66.167	110			
2	Regression	13.338	14	.953	1.731	.062[c]
	Residual	52.829	96	.550		
	Total	66.167	110			

a. Dependent Variable: IGECOMB

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063
	AGE1	-.004	.355	-.001	-.012	.991
	AGE3	.166	.214	.089	.776	.439
	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539

	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339
2	(Constant)	4.115	.233		17.661	.000
	GENDER2	-.221	.156	-.137	-1.415	.160
	GENDER3	-1.339	.788	-.164	-1.700	.092
	AGE1	.045	.353	.012	.129	.898
	AGE3	.209	.213	.112	.980	.330
	AGE4	.370	.234	.191	1.581	.117
	AGE5	.271	.334	.096	.810	.420
	EDU2	.126	.259	.057	.486	.628
	EDU3	-.375	.172	-.234	-2.179	.032
	EDU5	.189	.396	.046	.476	.635
	YEARS2	.124	.206	.059	.604	.548
	YEARS3	-.248	.237	-.121	-1.047	.298
	YEARS4	-.185	.349	-.058	-.531	.596
	YEARS5	-.264	.316	-.098	-.833	.407

TAX	-.159	.094	-.168	-1.683	.096

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.168[b]	-1.683	.096	-.169	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

D. IFI

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.413[b]	.171	.050	.79515	.012	1.396	1	96	.240

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]
	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	12.497	14	.893	1.412	.163[c]
	Residual	60.698	96	.632		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847
	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840

	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530
2	(Constant)	3.918	.250		15.688	.000
	GENDER2	-.178	.167	-.105	-1.063	.290
	GENDER3	-1.587	.844	-.185	-1.880	.063
	AGE1	-.036	.378	-.009	-.094	.925
	AGE3	.194	.229	.099	.850	.398
	AGE4	.093	.251	.045	.369	.713
	AGE5	.077	.358	.026	.215	.830
	EDU2	.134	.277	.058	.482	.631
	EDU3	-.469	.184	-.278	-2.540	.013
	EDU5	.129	.424	.030	.304	.762
	YEARS2	.042	.221	.019	.189	.851
	YEARS3	-.125	.254	-.058	-.492	.624
	YEARS4	-.154	.374	-.046	-.413	.680
	YEARS5	-.182	.339	-.064	-.536	.593

TAX	-.119	.101	-.120	-1.182	.240

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.120[b]	-1.182	.240	-.120	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFICOMB

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

E. ICH

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX	.	Enter

a. Dependent Variable: ICHCOMB

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.419[b]	.176	.056	.79303	.048	5.591	1	96	.020

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]
	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	12.881	14	.920	1.463	.140[c]
	Residual	60.374	96	.629		
	Total	73.255	110			

a. Dependent Variable: ICHCOMB

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000
	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629
	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660

	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	3.919	.249		15.732	.000
	GENDER2	.050	.167	.029	.299	.765
	GENDER3	.089	.842	.010	.106	.916
	AGE1	-.112	.377	-.029	-.298	.767
	AGE3	.383	.228	.194	1.679	.096
	AGE4	.190	.250	.093	.761	.449
	AGE5	.383	.357	.129	1.072	.286
	EDU2	.265	.277	.115	.958	.340
	EDU3	-.281	.184	-.167	-1.529	.130
	EDU5	.441	.423	.101	1.043	.300
	YEARS2	.093	.220	.042	.425	.672
	YEARS3	-.268	.253	-.124	-1.059	.292
	YEARS4	-.198	.373	-.059	-.531	.597
	YEARS5	-.500	.338	-.176	-1.478	.143

TAX	-.238	.101	-.239	-2.365	.020

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.239[b]	-2.365	.020	-.235	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICHCOMB

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

F. IAP

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TAX[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.400[b]	.160	.037	.86186	.017	1.929	1	96	.168

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARSR5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]
	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	13.570	14	.969	1.305	.219[c]
	Residual	71.309	96	.743		
	Total	84.879	110			

a. Dependent Variable: IAPCOMB

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479
	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909

	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	3.839	.271		14.182	.000
	GENDER2	-.171	.181	-.093	-.941	.349
	GENDER3	-.634	.915	-.068	-.693	.490
	AGE1	-.244	.410	-.058	-.596	.553
	AGE3	.056	.248	.027	.227	.821
	AGE4	-.180	.272	-.082	-.664	.509
	AGE5	-.020	.388	-.006	-.050	.960
	EDU2	.292	.301	.117	.972	.333
	EDU3	-.460	.200	-.254	-2.303	.023
	EDU5	.214	.460	.046	.465	.643
	YEARS2	.024	.239	.010	.099	.921
	YEARS3	.022	.275	.010	.080	.936
	YEARS4	.111	.405	.031	.275	.784
	YEARS5	-.172	.367	-.056	-.467	.641

TAX	-.152	.110	-.142	-1.389	.168

a. Dependent Variable: IAP

Excluded Variables[a]

						Collinearity Statistics
Model		Beta In	t	Sig.	Partial Correlation	Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TAX	-.142[b]	-1.389	.168	-.140	.838
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAPCOMB

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TAX

Appendix 15: Multilinear Regression Analysis - TOP

A. INBEH

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOP[c]	.	Enter

a. Dependent Variable: INBEH
b. Tolerance = .000 limit reached.
c. All requested variables entered.

Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change

1 [a]	.198	.090	.67016	.198	1.842	13	97	.047
2 [b]	.211	.096	.66830	.013	1.538	1	96	.218

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.754	13	.827	1.842	.047[b]
	Residual	43.564	97	.449		
	Total	54.317	110			
2	Regression	11.441	14	.817	1.830	.045[c]
	Residual	42.877	96	.447		
	Total	54.317	110			

a. Dependent Variable: INBEH
b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.675	.146		25.189	.000
	GENDER2	-.179	.140	-.122	-1.277	.204
	GENDER3	-1.260	.707	-.170	-1.781	.078
	AGE1	-.171	.317	-.051	-.538	.591
	AGE3	.162	.191	.096	.849	.398
	AGE4	.198	.209	.113	.946	.347
	AGE5	.210	.300	.082	.701	.485
	EDU2	.163	.229	.082	.714	.477
	EDU3	-.447	.152	-.308	-2.944	.004
	EDU5	.162	.357	.043	.455	.650
	YEARS2	.149	.186	.078	.800	.425
	YEARS3	-.113	.214	-.061	-.529	.598
	YEARS4	-.075	.314	-.026	-.239	.812
	YEARS5	-.334	.285	-.137	-1.172	.244

2	(Constant)	3.900	.232		16.782	.000
	GENDER2	-.172	.140	-.117	-1.225	.224
	GENDER3	-1.261	.705	-.170	-1.788	.077
	AGE1	-.136	.318	-.040	-.427	.671
	AGE3	.187	.192	.110	.974	.333
	AGE4	.158	.211	.090	.747	.457
	AGE5	.181	.300	.071	.604	.547
	EDU2	.170	.228	.085	.745	.458
	EDU3	-.422	.153	-.291	-2.765	.007
	EDU5	.176	.356	.047	.494	.622
	YEARS2	.125	.186	.066	.673	.503
	YEARS3	-.115	.213	-.062	-.540	.590
	YEARS4	-.115	.315	-.040	-.366	.715
	YEARS5	-.329	.284	-.135	-1.160	.249
	TOP	-.104	.084	-.120	-1.240	.218

a. Dependent Variable: INBEH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOP	-.120[b]	-1.240	.218	-.126	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: INBEH
b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5
c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

B. IOX

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOP[c]	.	Enter

a. Dependent Variable: IOX

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.496[a]	.246	.145	.77237	.246	2.433	13	97	.007
2	.506[b]	.256	.148	.77109	.010	1.320	1	96	.253

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.869	13	1.451	2.433	.007[b]
	Residual	57.865	97	.597		
	Total	76.734	110			
2	Regression	19.654	14	1.404	2.361	.007[c]
	Residual	57.080	96	.595		
	Total	76.734	110			

a. Dependent Variable: IOX

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.775	.168		22.450	.000
	GENDER2	-.273	.162	-.157	-1.689	.094
	GENDER3	-2.208	.815	-.251	-2.709	.008
	AGE1	-.300	.366	-.075	-.819	.415
	AGE3	.151	.221	.075	.683	.496
	AGE4	.286	.241	.137	1.186	.239
	AGE5	.054	.345	.018	.157	.875
	EDU2	.374	.264	.158	1.417	.160
	EDU3	-.383	.175	-.222	-2.188	.031
	EDU5	.027	.411	.006	.065	.948
	YEARS2	.444	.214	.197	2.074	.041
	YEARS3	.147	.246	.067	.597	.552
	YEARS4	-.140	.362	-.041	-.388	.699
	YEARS5	-.375	.328	-.129	-1.143	.256

2	(Constant)	4.015	.268		14.976	.000
	GENDER2	-.265	.162	-.152	-1.639	.104
	GENDER3	-2.209	.814	-.251	-2.715	.008
	AGE1	-.262	.367	-.065	-.714	.477
	AGE3	.177	.221	.088	.798	.427
	AGE4	.243	.244	.116	.997	.321
	AGE5	.023	.346	.008	.067	.946
	EDU2	.381	.263	.161	1.447	.151
	EDU3	-.356	.176	-.207	-2.023	.046
	EDU5	.041	.411	.009	.100	.920
	YEARS2	.419	.215	.186	1.950	.054
	YEARS3	.145	.246	.066	.589	.557
	YEARS4	-.183	.363	-.054	-.505	.615
	YEARS5	-.370	.328	-.128	-1.130	.261
	TOP	-.111	.096	-.108	-1.149	.253

a. Dependent Variable: IOX

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOP	-.108[b]	-1.149	.253	-.116	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IOX

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

C. IGE

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOP[c]	.	Enter

a. Dependent Variable: IGE

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.422[a]	.178	.068	.74880	.178	1.616	13	97	.094
2	.429[b]	.184	.065	.74993	.006	.708	1	96	.402

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.778	13	.906	1.616	.094[b]
	Residual	54.388	97	.561		
	Total	66.167	110			
2	Regression	12.177	14	.870	1.547	.109[c]
	Residual	53.990	96	.562		
	Total	66.167	110			

a. Dependent Variable: IGE

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.832	.163		23.508	.000
	GENDER2	-.246	.157	-.152	-1.565	.121
	GENDER3	-1.486	.790	-.182	-1.881	.063
	AGE1	-.004	.355	-.001	-.012	.991
	AGE3	.166	.214	.089	.776	.439
	AGE4	.425	.234	.219	1.817	.072
	AGE5	.338	.335	.120	1.010	.315
	EDU2	.037	.256	.017	.145	.885
	EDU3	-.438	.170	-.274	-2.584	.011
	EDU5	.144	.399	.035	.361	.719
	YEARS2	.128	.208	.061	.617	.539
	YEARS3	-.270	.239	-.132	-1.132	.261
	YEARS4	-.140	.351	-.044	-.398	.691
	YEARS5	-.306	.318	-.113	-.961	.339

2	(Constant)	4.003	.261		15.353	.000
	GENDER2	-.240	.157	-.148	-1.524	.131
	GENDER3	-1.487	.791	-.182	-1.879	.063
	AGE1	.023	.357	.006	.064	.949
	AGE3	.185	.215	.098	.858	.393
	AGE4	.394	.237	.203	1.663	.100
	AGE5	.316	.336	.112	.940	.350
	EDU2	.042	.256	.019	.164	.870
	EDU3	-.419	.171	-.262	-2.448	.016
	EDU5	.154	.400	.037	.386	.700
	YEARS2	.110	.209	.053	.528	.599
	YEARS3	-.272	.239	-.133	-1.137	.258
	YEARS4	-.170	.353	-.054	-.483	.630
	YEARS5	-.302	.319	-.112	-.948	.345
	TOP	-.079	.094	-.083	-.842	.402

a. Dependent Variable: IGE

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOP	-.083[b]	-.842	.402	-.086	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IGE

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

D. IFI

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOP[c]	.	Enter

a. Dependent Variable: IFI

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.398[a]	.159	.046	.79678	.159	1.407	13	97	.170
2	.403[b]	.162	.040	.79925	.003	.401	1	96	.528

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.614	13	.893	1.407	.170[b]
	Residual	61.581	97	.635		
	Total	73.195	110			
2	Regression	11.870	14	.848	1.327	.206[c]
	Residual	61.325	96	.639		
	Total	73.195	110			

a. Dependent Variable: IFI

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.705	.173		21.362	.000
	GENDER2	-.197	.167	-.116	-1.177	.242
	GENDER3	-1.698	.841	-.198	-2.019	.046
	AGE1	-.073	.377	-.019	-.193	.847
	AGE3	.162	.228	.082	.712	.478
	AGE4	.134	.249	.066	.538	.592
	AGE5	.128	.356	.043	.359	.721
	EDU2	.067	.272	.029	.246	.806
	EDU3	-.516	.180	-.307	-2.860	.005
	EDU5	.095	.424	.022	.225	.823
	YEARS2	.045	.221	.020	.202	.840
	YEARS3	-.142	.254	-.066	-.557	.579
	YEARS4	-.120	.373	-.036	-.322	.748
	YEARS5	-.213	.339	-.075	-.630	.530

2	(Constant)	3.843	.278		13.827	.000
	GENDER2	-.192	.168	-.113	-1.144	.255
	GENDER3	-1.698	.844	-.198	-2.013	.047
	AGE1	-.051	.380	-.013	-.135	.893
	AGE3	.177	.230	.090	.771	.443
	AGE4	.109	.253	.054	.433	.666
	AGE5	.110	.359	.037	.307	.759
	EDU2	.071	.273	.031	.261	.795
	EDU3	-.501	.183	-.298	-2.745	.007
	EDU5	.104	.426	.024	.243	.808
	YEARS2	.030	.223	.014	.136	.892
	YEARS3	-.143	.255	-.066	-.560	.577
	YEARS4	-.145	.376	-.043	-.385	.701
	YEARS5	-.211	.340	-.074	-.620	.537
	TOP	-.063	.100	-.063	-.633	.528

a. Dependent Variable: IFI

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOP	-.063[b]	-.633	.528	-.064	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IFI

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

E. ICH

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter
2	TOP[c]	.	Enter

a.Dependent Variable: ICH
b. Tolerance = .000 limit reached.
c. All requested variables entered.

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.358[a]	.128	.011	.81158	.128	1.094	13	97	.374
2	.396[b]	.157	.034	.80209	.029	3.309	1	96	.072

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.365	13	.720	1.094	.374[b]
	Residual	63.890	97	.659		
	Total	73.255	110			
2	Regression	11.494	14	.821	1.276	.236[c]
	Residual	61.761	96	.643		
	Total	73.255	110			

a. Dependent Variable: ICH

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.494	.177		19.775	.000

	GENDER2	.013	.170	.008	.076	.940
	GENDER3	-.132	.857	-.015	-.154	.878
	AGE1	-.187	.384	-.048	-.485	.629
	AGE3	.319	.232	.161	1.374	.173
	AGE4	.273	.253	.134	1.076	.285
	AGE5	.485	.363	.163	1.335	.185
	EDU2	.132	.277	.057	.476	.635
	EDU3	-.376	.184	-.223	-2.046	.043
	EDU5	.374	.432	.086	.866	.389
	YEARS2	.099	.225	.045	.442	.660
	YEARS3	-.302	.259	-.140	-1.164	.247
	YEARS4	-.130	.380	-.039	-.341	.734
	YEARS5	-.563	.345	-.198	-1.632	.106
2	(Constant)	3.890	.279		13.947	.000
	GENDER2	.026	.168	.016	.157	.875
	GENDER3	-.134	.847	-.016	-.158	.875
	AGE1	-.124	.382	-.032	-.326	.745

	AGE3	.362	.230	.183	1.570	.120
	AGE4	.202	.253	.099	.797	.428
	AGE5	.434	.360	.146	1.205	.231
	EDU2	.144	.274	.062	.525	.601
	EDU3	-.333	.183	-.198	-1.815	.073
	EDU5	.398	.427	.091	.932	.354
	YEARS2	.058	.224	.026	.260	.795
	YEARS3	-.305	.256	-.142	-1.193	.236
	YEARS4	-.201	.378	-.060	-.531	.596
	YEARS5	-.555	.341	-.196	-1.628	.107
	TOP	-.182	.100	-.182	-1.819	.072

a. Dependent Variable: ICH

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
1	GENDER1	.[b]	.	.	.	.000

	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000
	YEARS1	.[b]	.	.	.	.000
	TOP	-.182[b]	-1.819	.072	-.183	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: ICH

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

F. IAP

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5[b]	.	Enter

2	TOP[c]	.	Enter

a. Dependent Variable: IAP

b. Tolerance = .000 limit reached.

c. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.378[a]	.143	.028	.86598	.143	1.245	13	97	.260
2	.385[b]	.148	.024	.86785	.005	.582	1	96	.447

a. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.137	13	.934	1.245	.260[b]

	Residual	72.742	97	.750		
	Total	84.879	110			
2	Regression	12.575	14	.898	1.193	.294[c]
	Residual	72.304	96	.753		
	Total	84.879	110			

a. Dependent Variable: IAP

b. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.568	.189		18.926	.000
	GENDER2	-.194	.182	-.106	-1.071	.287
	GENDER3	-.775	.914	-.084	-.848	.399
	AGE1	-.292	.410	-.069	-.711	.479

	AGE3	.015	.247	.007	.061	.952
	AGE4	-.128	.270	-.058	-.472	.638
	AGE5	.045	.387	.014	.117	.907
	EDU2	.207	.296	.083	.701	.485
	EDU3	-.521	.196	-.287	-2.657	.009
	EDU5	.171	.461	.036	.371	.711
	YEARS2	.027	.240	.012	.114	.909
	YEARS3	.001	.276	.000	.003	.997
	YEARS4	.155	.406	.043	.382	.704
	YEARS5	-.212	.368	-.069	-.577	.566
2	(Constant)	3.748	.302		12.420	.000
	GENDER2	-.188	.182	-.103	-1.034	.304
	GENDER3	-.776	.916	-.084	-.847	.399
	AGE1	-.263	.413	-.062	-.638	.525
	AGE3	.035	.249	.016	.139	.890
	AGE4	-.160	.274	-.073	-.583	.561
	AGE5	.022	.389	.007	.057	.955

	EDU2	.213	.297	.085	.717	.475
	EDU3	-.501	.198	-.277	-2.529	.013
	EDU5	.182	.462	.039	.394	.695
	YEARS2	.009	.242	.004	.036	.971
	YEARS3	-.001	.277	.000	-.003	.998
	YEARS4	.123	.409	.034	.300	.765
	YEARS5	-.209	.369	-.068	-.565	.573
	TOP	-.083	.109	-.077	-.763	.447

a. Dependent Variable: IAP

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
1	GENDER1	.[b]	.	.	.	.000
	AGE2	.[b]	.	.	.	.000
	EDU4	.[b]	.	.	.	.000

	YEARS1	.[b]	.	.	.	.000
	TOP	-.077[b]	-.763	.447	-.078	.874
2	GENDER1	.[c]	.	.	.	.000
	AGE2	.[c]	.	.	.	.000
	EDU4	.[c]	.	.	.	.000
	YEARS1	.[c]	.	.	.	.000

a. Dependent Variable: IAP

b. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5

c. Predictors in the Model: (Constant), YEARS5, GENDER3, AGE1, GENDER2, YEARS4, EDU5, YEARS2, EDU3, AGE3, AGE4, YEARS3, EDU2, AGE5, TOP