HUMAN ASPECTS VALUE BASED SOFTWARE ENGINEERING: A DEVELOPER'S PERSPECTIVE

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I declare that this thesis entitled *"Human Aspects of Value-Based Software Engineering: A Developer's Perspective*" is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ABSTRACT

Human values are increasingly recognized as the most important aspect of software development. To address values in software engineering, human values such as respect, social justice, integrity, social responsibility, and software sustainability have little focused. A limited set of values have been explored and some of the reasons are lack of guidelines for addressing values in software development methodology, ignoring the fact of human values of the developers of software, lack of diversity among technology leaders to address values. Software developers are directly involved in software development and infuse their values are in practice adaptions of software development practices. Ignoring such values to address in software development can risk for loss of user satisfaction, financial loss, and overall software quality. Thus, this study aims to explore the needed values of software developers which are explicitly and effectively addressed during software development. A survey methodology was employed in this study to explore the industry-based information regarding human values of software developers to infuse in practice adoption of software development practices. Developers from the industry participated in the survey through the questionnaire. A survey instrument is adopted from Shawartz's basic theory for humans values, which is the most comprehensive to date. Results are analyzed through fundamental statistics to examine the values priorities of developers in development practices. The findings of this research suggest that developer's values help crucially to take decisions in the practice of software development. Cultural aspects, integrity, autonomy, and social responsibility are some of the most explicit values in action. This study not only helps to realize the technology leaders to resist the fundamental human aspect that can address values in software engineering, but also provide guiding philosophy related to the developer's perspective to infuse them in development practices. By the results of this research, it is suggested that human values should be practiced and existing software engineering methods must conform for human values to address in software development practices with evolutionary adaptations.

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LIST OF ABBREVIATIONS

R_ID	Respondent ID
SE	Software Engineering
ICT	Information and Communication Technology
RE	Requirement Engineering

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DEDICATION

This thesis work is dedicated to my parents and my teachers throughout my education career who have not only loved me unconditionally but whose good examples have taught me to work hard for the things that I aspire to achieve.

CHAPTER 1

INTRODUCTION

1.1 Overview

This chapter documents the research's background, statement of the research problem, research questions and research objective, scope of the study, aim of the research, methodology, and scope of research.

1.2 Background of Research

Computer engineering, Software engineering, or computer software are very useful and much helpful to the public in terms of software engineering due to value-based human aspects which can be responsible for changing of final results of the final products. human values are much important from the developer perspective because they can create a problem in the whole findings and results may be changed in no time in Software engineering. Plenty of studies have highlighted the impact of the human aspect and their role in Software engineering. To realize the importance of the cultures in which software products are produced, and all those factors which can create problem in decisions-making powers including customer and as well as developer's point of view working in Software engineering, it is understandable that software engineers are directly linked with values which are called human values [2].

Values are always directly linked with human performance and attitude; all these Human values are the assets qualities of the person that lead him or her to take different types of

decisions and understanding in life according to the situation. Based on human values a man takes into account the human element when we interact with other human beings. Human values are, for example, consideration, appreciation, listening, openness, affection, respect, acceptance, empathy, and love towards other human beings. It is with those human values that one becomes truly able to put into practice his/her ethical values, such as justice, integrity, and refusal of violence and ban to kill – even in a crisis. Human values convey a positive and affective surge, which reinforces the rationale of moral values. They are the values that permit us to live together in harmony and personally contribute to peace. Human values are a tool to manage human relations and a tool for peace when the tension is high so it can be said that these values directly influence results because they can disturb the performance of any person. These human aspects play a vital role and can disturb the final findings or results.

In human values-based Software engineering information can be collected than gathered and analyzed from all the phases from the customers as well as the developers or other members of a project team. The requirement's gathering phase is a conception and a perception of the actual desired need near what should be done and occur in upcoming days in sense of project completing. And what should it be done to complete the final results or projects from the perspective of both customers as well as a developer [1]? Although software engineers or developer sometimes do not bother the values and don't give them much importance, ultimately results come in the shape of undesired outcomes and final findings which away beyond the customers need and requirement so values are important in Software engineering because of the way they shape the individual's interactions with software.

Furthermore, Software engineering activities need to add as much value as possible to support developers in completing their tasks in the given time, cost, and resource constraints. For example, developers may "value" tools that help them identify the best set of test cases, but may consider long planning meetings as a "waste" because they do not help them deliver a high- quality product [1]. So, software engineering is used to build and maintain high-quality software- intensive systems and services that provide value to their users and society as a whole [3].

Values do matters from the developer perspective or project engineers who are working

on a project or software. People who are involved in decision-making measures and processes may have problems in the final findings and all those results or outcomes of results which can be unacceptable from the developer perspective. Such decisions are forceful and have to change situations that can affect the final results of the project or particular software. This leading theory on human values and how these values affect the final findings and all those results from the developer perspective is common nowadays [3][2].

However, clear value and waste considerations have to a large extent been neglected in Software engineering in the past. As in Lean development, any activity that is not considered to add value (to the customer but also developers) may be considered as waste and cause potential risks (e.g., frustrated customers and developers, project delays) [3]. The resulting delay in the software development process can easily occur.

In the earlier studies, most focus shifts were towards the increasing economic benefits of software and there was very little focus on human values, ethics, and benefits. But Boehm and Sullivan have challenged this mindset and they have purposed that human-based value.

Values must be given importance and should be considered and given importance in software engineering practices. Human aspects are an integral part of the software process and they should be given equal importance in the software Process, as it led to the creation of an agile manifesto. As agile believes that if the people working on the project are competent, the project will be successful but if the people working on the project are not competent and not good enough it will cause project failure. So, it can be said that “people trump process”. As in psychology research, it’s been said discovered that happy employees are more productive and they work much better and produce much more and better results than the ones who are unhappy at the job. Recently it has been observed that a developer’s mood is very essential for software development. There is still a need for research on the role of emotions in software engineering. it is very hard to measure the success or outcome of software without knowing the importance of human values which may affect their performances, In today’s competitive world and international companies, so accessing the value of software is becoming very difficult as there is still a lack of measuring methods or instruments. Certain metrics are available

but they only comprise limited sides. A metric is an “A metric is a “function whose inputs are software data and whose output is a single numerical value that can be interpreted as the degree to which software possesses a given attribute” [7]. Scacchi detected in his research that which factors during software development effects the software development process the most and does this creates a negative impact on the productivity of software and play a role in software failure. Software engineering needs to incorporate human factors in the software development process and need to increase research in this field to lessen the challenges and effects it is causing in the development process. And there is a need to provide methodology or strategies to deal with these [9].

Human values are a tool to manage human relations. Human value-based in Software engineering Values always has a significant role in manipulating policymaking and performances. And all these actions directly linked influenced upon software products [2]. As it is understandable the importance of Human Values which is well-defined as the supervisory and managerial principles which have much influenced both the customer's side as well as specialists from the developer perspective, these values are always a source of collective information and decision-making processes from an organizational point of view. Regardless of division in these values, and changed persons or particular act differently in many similar conditions and situations accordingly. The main reason is that every person has different and changed importance on each value in software engineering.

There are situations where there is a conflict on values between stakeholders who are directly involved in product making process (for example if someone contributing financial aid to charity kindness and universalism, but if it spends the same money on completing one’s hobby and help helps achieve pleasure- seeking), so its dependents on every person or individual that who he reacts about these values and how he takes these values important according to their importance software engineering [2].depending on the values from, it is likely possible that every developer or stakeholder have and changed importance of and changed values according to the and changed situations. Division in these values, and changed persons or particular act differently in many similar conditions and situations accordingly.

The main reason is that every person has different and changed standing on each value

in software engineering. There are situations where there is a conflict on values between stakeholders who are directly involved in the product-making process (for example if someone contributing financial aid. Human values, such as and economic needs success respect, worries, social needs, joy, happiness, family, community justice, a significant role in manipulating policymaking and performances. It is commonly well-known and understandable that practice that the requirements engineering (RE) process is much more subjective and affected by easygoing issues such as policymaking or individual standards and values of stakeholders and sponsors, the study identifies the various values from the developer perspective working in and changed organizations.

Human values studies always should be famous and changed from computing ethics studies. Values are important in Software engineering because of the way they shape the individual's interactions with software. They are a measure for the evaluation. We can measure our results by using these values in Software engineering. The evaluation process may be affected due to these human values [5].

Although software engineers or developer sometimes do not bother the values and don't give them much importance, ultimately results come in the shape of undesired outcomes and final findings which away beyond the customers need and requirement so values are important in Software engineering because of the way they shape the individual's interactions with software. Human values, such as respect, acceptance, consideration, appreciation, listening communication, public interaction, Emotions, social honesty, workplace cultures and norms, and teamwork economic success, affect and change software production while decision-making processes in software engineering. as it needs a final product so these values can change the results in Software engineering [2][6].

1.3 Problem Statement

Most of the Existing studies have significantly reported the importance of the right value identification for generic perspective however none of them reported or investigated the human aspect of value-based in Software engineering from a developer perspective [7].

These human values may be affecting while assembling the final results or outcome in software engineering from a developer perspective in software development. There is still plenty of work can be done in human aspects of value-based software engineering from developer perspective.

To address values in software engineering, human values such as respect, social justice, integrity, social responsibility, and software sustainability have been focused very little. A limited set of values have been explored and some of the reasons are lack of guidelines for addressing values in software development methodology, ignoring the fact of human values of the developers of software, lack of diversity among technology leaders to address values. Software developers are directly involved in software development and infuse their values are in practice adaptions of software development practices. Ignoring such values to address in software development can risk for loss of user satisfaction, financial loss, and overall software quality.

As a significance, value is a much vast concept so a lot of work can be done in terms of human personality as well as social values. Many researchers have performed their level best before this on human values and their effects. in addition to the software development community typically from developer perspective values affects directly on such that (automation, productivity, quality, low cost, etc.) [6]. While cost, safety, availability, and security have received some attention, broader human values (and the notion of value beyond business, economic and technical value) such as compassion, social responsibility, and justice have been a side concern in Software engineering. software development is persistent so human value aspects in software engineering are becoming even more essential.

1.4 Research Questions

The main purposed idea of this particular research is to critically and detail examine the developer perspective that how human values can impact the flow of activities in software development towards values-based Software engineering: from the developer perspective.

There are two questions which are as following that will explain this particular research.

RQ 1: What human values theories exist in the literature relevant to the software development perspective?
RQ 2: How human aspects (developer perspective) affect towards value-based Software engineering.?

1.5 Aim of Research

Research Aim is the main key focus which is used to examine the Human aspect, specifically the developer perspective of how the human values aspect can impact or affect the software development that led to the value-based Software engineering. as much work can be done on human values-based Software engineering, so the aim is clear to highlight those aspects or factors which can create a problem the final finding or results in SE (Software engineering) from the developer perspective. Although software engineers or developer sometimes do not bother the values and don't give them much importance, ultimately results come in the shape of undesired outcomes and final findings which away beyond the customers need and requirement so values are important in Software engineering.

1.6 Scope of Study

The scope of the study is to identify the human aspects of the value-based Software engineering developer perspective. Those human aspects can create a problem the finding results from the developer perspective. Impact towards an existing state of practice in Human-based Software engineering. The first contribution will be the detail of human value theories related to Software engineering. And the second contribution will be the practitioner's perspective on human values' effect on value-based Software engineering.

Due to these academicians and practitioners can get the guidelines related to Human

Aspects of Value-Based Software engineering: Developer perspective ultimately affecting the quality of the gathered requirement. Idea is to find and identified the values and what is mean by human values. Those human values can create a problem with the final findings and all those results or result in Software engineering from the developer perspective.

1.7 Thesis Outline

The scope of the study is to identify the human aspects of value-based Software engineering developer perspective; the thesis report consists of 5 chapters. The key objective and mission of research are to identify and trace the Human Aspects of Value-Based Software engineering: Developer perspective. those aspects or human values which may have an impact and can change the final desired outcomes from the developers "perspective. Which is harmful to both from a customer point of view as well as from the developer point of view and developer perspective in SE. The main objectives and their achievement are defined and explained in the following thesis. Chapter one is concerning with the introduction of human values and the importance of all those human values in Software engineering which are detailed describes an overview of the background of research.

Defining the human values, the Problem statement also describes the first chapter of the thesis, which is the main objective and concern area of this research. Additionally, it also aims to define research questions that how human values affect the final results and findings from the developer perspective, which is attached in appendix, scope, and contribution of the study and significance of the study, is also discussed in it. So Generally, Chapter one gives an overview of the human values and their uses in Software engineering from the developer perspective.

Chapter second is "Literature Review" and it describes the existing studies related to Human Aspects of Value-Based (SE) Software engineering: Developer perspective. In the second chapter Human Aspects of Value-Based Software engineering: Developer perspective is described in detail. It also describes the values and values-based Software

engineering. These values, and changed persons or particular act differently in many similar conditions and situations accordingly. The main reason is that every person has different and changed standing on each value in software engineering. Human Aspects of Value-Based Software engineering: The developer perspective is described in detail. It also describes the values and values-based Software engineering. There are situations where there is a conflict of values between stakeholders who are directly involved in the product-making process. Because everyone considers the importance of any human values from its point of view. So, there is a possibility that in the human aspect of value-based engineering, the importance of human values may be differing from developers: perspective.

The third chapter of this thesis is “Research Methodology”. It shows the methodology used for this research and how those human values will be traced and trace which can create a problem with the final results. In this thesis “Survey “methodology is going to be used to collect desire results. Each research question related to human values from a developer perspective is deliberated and methodology that is used for the research. The Conclusions of the research questions are also debated in section three. Our methodology is surveying so, survey methodology can be used to identify the human values which can create a problem with the results from the developer perspective.

Chapter four is “Results, Analysis, and Validations”. This chapter contains results that what are the factors in human value-based Software engineering which can create problem results from the developer perspective. Results of the questionnaires are analyzed that are filled by the developers. After examining the outcomes, a phase of validation is done and performed. Human aspects and values are discussed in this chapter due to them the final findings and outcomes can be disturb and may create a huge problem in final or desired results from a developer perspective in SE (software engineering).

Chapter five is the “Conclusion”. It contains the fulfilments of our research purposes that how value-based Software engineering affects the outcomes from the developer perspective. Future work is also discussed in this section as well. Limitations and upshots of research are also defined with the contribution and significance of this study.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In our previous chapter, we have reported the introduction of our study where the background of the problem, problem statement, research questions and objective, research's aim, and scope of research. This chapter further extends it by exploring the related work published to our problem area and our research.

2.2 Value Based Software Engineering

Computer engineering, Software engineering, or computer software are very useful and much helpful to the public in terms of software engineering due to value-based human aspects which can be responsible for changing of final results of the final products. In human values-based SE (Software engineering) information collected then gathered and analyzed from all the phases from the customers as well as the developers or other members of a project team. The requirements' gathering phase is a conception and a perception of the actual desired need about what is going to happen in the future in sense of project completion. And what it should be done to complete the final results or projects from the perspective of both customers as well as a developer [1].

Software engineering to build and maintain high-quality software-intensive systems and services that provide value to their users and society as a whole [3]. Furthermore, Software engineering activities need to add as much value as possible to support developers in completing their tasks given time, cost, and resource constraints. For example, developers may "value" tools that help them identify the best set of test cases, but may consider long planning meetings as a "waste" because they do not help them deliver a high-quality product [1].

From a developer perspective or project engineers who are working on a project or software, and changed people are involved in decision-making measures and process which can create a problem the final findings and all those results or outcomes of final results from the developer perspective. Such decisions are forceful and have to change situations that can affect the final results of the project or particular software. This leading theory on human values and how these values affect the final findings and all those results or results from a developer perspective is common nowadays [3][2].

However, clear value and waste considerations have to a large extent been neglected in Software engineering in the past. As in Lean development, any activity that is not considered to add value (to the customer but also developers) may be considered as waste and cause potential risks (e.g., frustrated customers and developers, project delays) [3].
However, clear value and waste considerations have to a large extent been neglected in Software engineering in the past. As in Lean development, any activity that is not considered to add value (to the customer but also developers) may be considered as waste and cause potential risks (e.g., frustrated customers and developers, project delays) [3].

Human Values can be defined as the guiding principles influencing individual, collective and organizational decision-making processes. these values are always the source of collective information and decision-making processes from an organizational point of view. Regardless of division in these values, and changed persons or particular act differently in many similar conditions and situations accordingly. The main reason is that every person has and changed importance on each value in software engineering. There are situations where there is a conflict on values between stakeholders who are directly involved in product making process, so its dependents on every person or individual that who he reacts about these values and how he takes these values important according to

their importance software engineering [2].

The study of human values-based Software engineering should be well-known from the study of computing ethics and has a very important and vital role in software engineering from a developer perspective. Values are much important in Software engineering because results and final findings and all those results are finalized based on these human value-based Software engineering. Results or outcomes can measure our results by using these values in Software engineering. The assessment process may be affected due to these human values [5][12].

Human values, such as respect, acceptance, consideration, appreciation, listening communication, Public interaction, Emotions, social honesty, workplace cultures and norms, and teamwork economic success, effective software construction, and decision-making processes as well. As need final product so this value can change the results in Software engineering [2][6].

Depending on the values from, it is likely possible that every developer or stakeholder have and changed importance of and changed values according to the and changed situations [11]. Human values are a tool to manage human relations. These human values help to define determine what is important and what is no more required in a sense of these values. Values are the ends to which act and come in many forms Human Values play an important role in decision-making [10].

Some of the most common Human values, such as, and economic needs success respect, community justice, a significant role in manipulating policymaking and performances. It is commonly well-known and understandable that practice that the requirements engineering (RE) process is much more subjective and affected by easygoing issues such as policymaking or individual standards and values of stakeholders and sponsors, the study identifies the various values from developer perspective working in and changed organizations [3].

To realize the importance of the cultures in which software products are produced, and all those factors which can create problem decision-making powers including customer

and as well as developers working in Software engineering, it is understandable that software engineers are directly linked with values which are called human values. These human Values play a vibrant and momentous role in manipulating and strong decision-making behaviors; all these actions have influence and have the skill to change the final product in sense of Software engineering [2][13]. Schwartz has worked on human values that in Software engineering relational model are kept when practical to detailed and exact life domains.

2.3 Existing Studies

The existing studies on Human Aspects of Value-Based Software engineering are scaled. Table 1 shows the Existing studies that have reported on and changed human aspects including communication, Public interaction, Emotions, social honesty, workplace cultures and norms, Emotions and Public interaction.

There are seven relevant studies conducted on Human Aspects of Value-Based Software engineering. in these studies, researchers have worked on human values that in Software engineering relational models are kept when practical to detailed and exact life domains to some extent from the developer perspective.

However, existing studies consist of four columns, first Colum for author name and year of publication second for the domain of study third contain contribution in study and lastly limitation at column number four.

Table2.1 Existing studies

Author/ Year	Domain	Contribution	Limitations
RumyanaProynova, Barbara Paech, Andreas Wicht, Thomas Wetter. /2019	Requirements Engineering process	Human values are discussed in the perspective of SE (software engineering) presented the theory of	How human values can be effective in the RE process by gathering basic needy requirements

		personal values in the RE process.	[Principal ideas/results]
"Suhaimi Ibrahim, Mohd Nazri Mahrin & Noar Azura Zakaria /2015"	Software development process	The goal of this study is to suggest a VBSPT outline to recommend atailored process in software development regarding human values which can create problem development	Provided framework, explain how human values are effective Software engineering.
"Uma Viswanath& Stefanie Betz /2019"	Software development Projects	"This paper presents a model for measuring the value of a software product in software development Project	The construct validity, Internal validity, External validity, Reliability
"Emily Winter, Stephen Forshaw, Lucy 'Hunt, and Maria Angela Ferrario, /2019 "[2]	Software engineering	"Laid out two principles to advance the study of human values in software production"	"Human value or human values always keep on a difficult and complex thing to study, particularly due to their operation at 3 stages and their variability of subjective clarifications" [2]
"An Overview of the Schwartz Theory of Basic Values/ Shalom H. Schwartz 2012"	Human Values	Define the values which can create a problem the final findings and all those results and results.	Values may change due to and changed circumstances
"Toward	Human Values	"Built a theory of the	Motions are

auniversal psychological structure of human values./ Shalom H. Schwartz" [8][9].		universal types of values, those values which may create a problem by achieving the desired results"[8][9].	concerning each other [8][9].

Paper of Rumyana Proynova, Barbara Paech, Andreas Wicht, /2019 Thomas Wetter to find whether enthusiasm and activeness of nurses overlap with personal values, office, or individual characteristics. The key and important determination of this study are to highlight the values which can create a problem in the results or conduct. Lack of nursing staff concessions patient care that is dependent upon the nurse. Moreover, Motivation and occupation pleasure are aspects due to the nurses remain quiet and silent. Little is known about the measurement and difference of nurses' enthusiasm. Finding for human values which can create problems program [14].

In the paper of ("Emily Winter, Stephen Forshaw, Lucy Hunt, and Maria Angela Ferrario,2019"), human values persist always a complex item to study, specifically, it is due to their action and uncertain situations, at three levels and their variation of subjective clarifications This paper explain the main importance human values in Software engineering (SE) as the human values are significant developing part of research with noteworthy societal implications. its proposal two main significant values to advance this research outline: firstly, the meaning of values as illustrious from, however, connected to, morality and ethics; and secondly, the need for clear theoretical outlines for these discussed values study.it provides the initial findings from an initial study (N=12 members) using a Values Q-Sort tool that is planned and design in agreement with discoursed these two ideologies. This research accomplishes with the debate and discussions about traditions educated, continuing trials challenges, and future guidelines and directions from the developer perspective.

Existing studies have significantly reported the importance of the right value identification for software development however none of them reported or investigated

the human aspect of value-based Software engineering. Numerous studies have highlighted the impact of the human aspect and their role in Software engineering. To realize the values by following them software is formed and all those decisions that are made in SE phases, all those values need to understand software engineers' values [15][16].

Human values are the tool to manage human relations. Human Values show an important and main character in manipulating policy and decision making and in performances and all these activities influence and impact the final product of software directly. From per developer's perspective, Human Values may be defined as the supervisory and manageable ethics and values manipulating separate, joint, and organizational decision-making procedures and processes. As it is clear that all these values and changed individuals act differently in similar situations, Values always show a decision making and significant role in swaying role in Software engineering while policy-making or decision-making the behaviors and these activities influence upon software products directly [2]. Human values, depending upon the nature for example esteem, respect, collective justice, and economic achievement, inspiration all these values are made the cause of software construction and strong decisions are taken in decision- making processes due to all these values [7][17].

From a developer perspective, Human values must be differing from the study of calculating and computing realities. Values are important in Software engineering since the way the personality's relations and interactions with software development in SE. it is the main tool to measure those human values effects for the evaluation and final results which are much needed for everyone. We can measure our results by using these values in Software engineering. The evaluation process may be affected due to these human values [4][18].

So, after all the above-mentioned studies, we are much aware of the awareness of the human values in Software engineering, as some studies are mentioned in the table but we are going to follow human values in the light of Shalom H. Schwartz's studies. Shalom H. Schwartz design a questionnaire regarding all those values or factors which can create problems with the final results or final findings and all those results. But we going to discuss it from the developer's perspective. The questionnaire which is picked is designed

according to these values or values respectively. Existing studies have reported on and changed human aspects including communication, Public interaction, Emotions, social honesty, workplace cultures and norms, Emotions and Public interaction [19][20].

It is generally recognized from repetition that the requirements engineering (RE) process is heavily prejudiced by personal values which are also known as human values of stakeholders [3][21]. Schwartz has worked on human values that in Software engineering social and personal model are sustained after practical to definite life domains and area. Schwartz's theory of basic values can be understood by the following picture which is mention below.

More of Schwartz’s detailed view theory can be seen from this figure. Shalom H. Schwartz design a questionnaire regarding all those values or factors which can create problems with the final results or final findings and all those results. But going to discuss it from the developer's perspective. The questionnaire is designed according to these values or values respectively.

Existing studies have reported on and changed human aspects including communication, Public interaction, Emotions, social honesty, workplace cultures and norms, Emotions and Public interaction [22][23].

Relevant studies conducted on Human Aspects of Value-Based Software engineering. in these studies, researchers have worked on human values that in Software engineering relational models are kept when practical to detailed and exact life domains to some extent from the developer perspective.

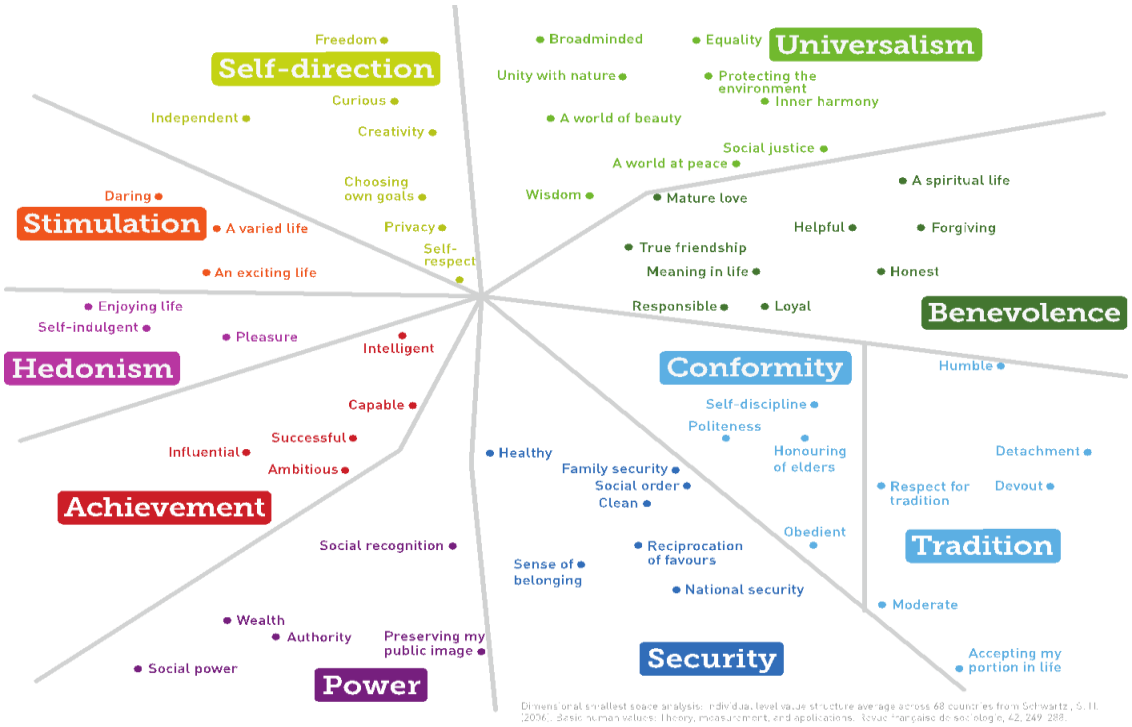

Figure 2. 1 Shalom H. Schwartz 2012" toward a universal psychological structure of human values.[9]

It classifies 10 motivationally and changed values and additionally labels the active relations amongst all of them. With the better graphical representation of these interlinked relationships; the current theory positions the 10 values in a round assembly [24].

In research papers of A Summary of the "Schwartz Theory of Basic Values/Shalom H. Schwartz 2012" toward a universal psychological structure of human values / Shalom H . Schwartz respectively, Schwartz and his fellows showed an advanced set of nineteen basic and important individual values that serve as "managerial and guiding principles in the life of a person or group in daily life. This develops particularly correct human values are one of the maximum influential and powerful clarifications of purchaser or customer conduct as well as it can be fine from a developer perspective in SE. basic knowhow all these and changed human values which are essential goals can also increase the working of that organization and its productivity from a developer perspective in SE.

2.4 Chapter Summary

In this chapter existing studies regarding human values are discussed, mainly the key focus point is human values in Software engineering. Software engineering. It is understandable and recognizes that the cultures in which software is shaped and the choices that are complete in Software engineering SE, need to understand software engineers' values. Values are important in Software engineering because of the way they shape the individual's interactions with software. They are a measure for the evaluation. We can measure our results by using these values in Software engineering.

Schwartz has worked on human values that in Software engineering personal models are sustained when practically too specific life areas. Schwartz's theory is for general purpose, it can be used in every field of life does not matter the weather, social sciences, engineering, or other educational fields. Schwartz's theory of basic human values will be meaningful and much more helpful if it is going to be used from a developer perspective. Schwartz theory of basic values can be understood by the following picture which is mention below So after all the above-mentioned studies we are much aware of the awareness of the human values in Software engineering, as some studies are mentioned in the table but we are going to follow human values in the light of Shalom H. Schwartz studies. Shalom H. Schwartz design a questionnaire regarding all those values or factors which can create problems with the final results or final findings and all those results. But we going to discuss it from a developer's point of view. Although there is still some opposition in "The Shalom H. Schwartz studies. And the human values which are defined in the study. But still, Shalom H. Schwartz's studies have been used in more than 80 countries worldwide across the globe.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

In this thesis chapter Human aspect, specifically from the developer perspective that how the human values aspect can impact or affect the software development process or working that led to the value-based Software engineering from developer perspective especially. as much work can be done on human values-based Software engineering, so the aim is clear to highlight those aspects or factors which can create a problem the final finding or results in SE (Software engineering) from the developer perspective.

The main objective and the focus area are methodology; the methodology survey through questionnaire that how those human values can be fined or trace which can directly affect can create the problems while development phase from the developer perspective. The survey methodology was reported in detail [25].

3.2 Operational Framework

Table 3.1 shows each research questions with its methodologies and results. These questions have to find and identified the values and what is mean by human values. And those human values can create a problem with the final findings and all those results or result in Software engineering from a developer perspective respectively.

Table 3. 1 Research Questions

ID	Research Question	Methodology	Outcome
RQ1	What human values theories exist in the literature relevant to the software development perspective?	Survey questionnaire	Identified the values and what is mean by human values.
RQ2	How human aspects (developer perspective on human values) affect value-based Software engineering.	Survey questionnaire	Those human values can create a problem with the final findings and all those results or result in Software engineering from a developer perspective.

3.3 Methodology

The methodology is a structure or process of principles or guidelines even it may say directions from which exact and specific approaches or procedures may be imitative to understand or solve and changed difficulties and problems within the defined scope of a specific discipline. The core point is to get desired and needed output based on that final finding or results in it will be easy to understand that human value-based Software engineering has much more importance. And these values play a vital role and have the impact to change the outcomes from the developer's perspective in the process of software development. In this research, a method which is going to be used to conduct this study is a survey, and this survey will be performed through a questionnaire to check whether human values can create a problem the final findings and all those results or results from the developer perspective. The guideline of Mark Kasunic is used for survey conduction. Because the survey is the best way to get the exact response from a concerned group of people, and people can easily express their thoughts and idea even experience through a survey.

3.3.1 Survey

A survey is conducted to find the human values, and especially those human values which may or surely affect the working or process of Software engineering from the developer perspective. Following are the steps of the survey.

3.4 Survey Steps

Figure 3.1 shows the steps to conduct the survey. The survey protocol is comprised of seven steps. Each of them is explained below.

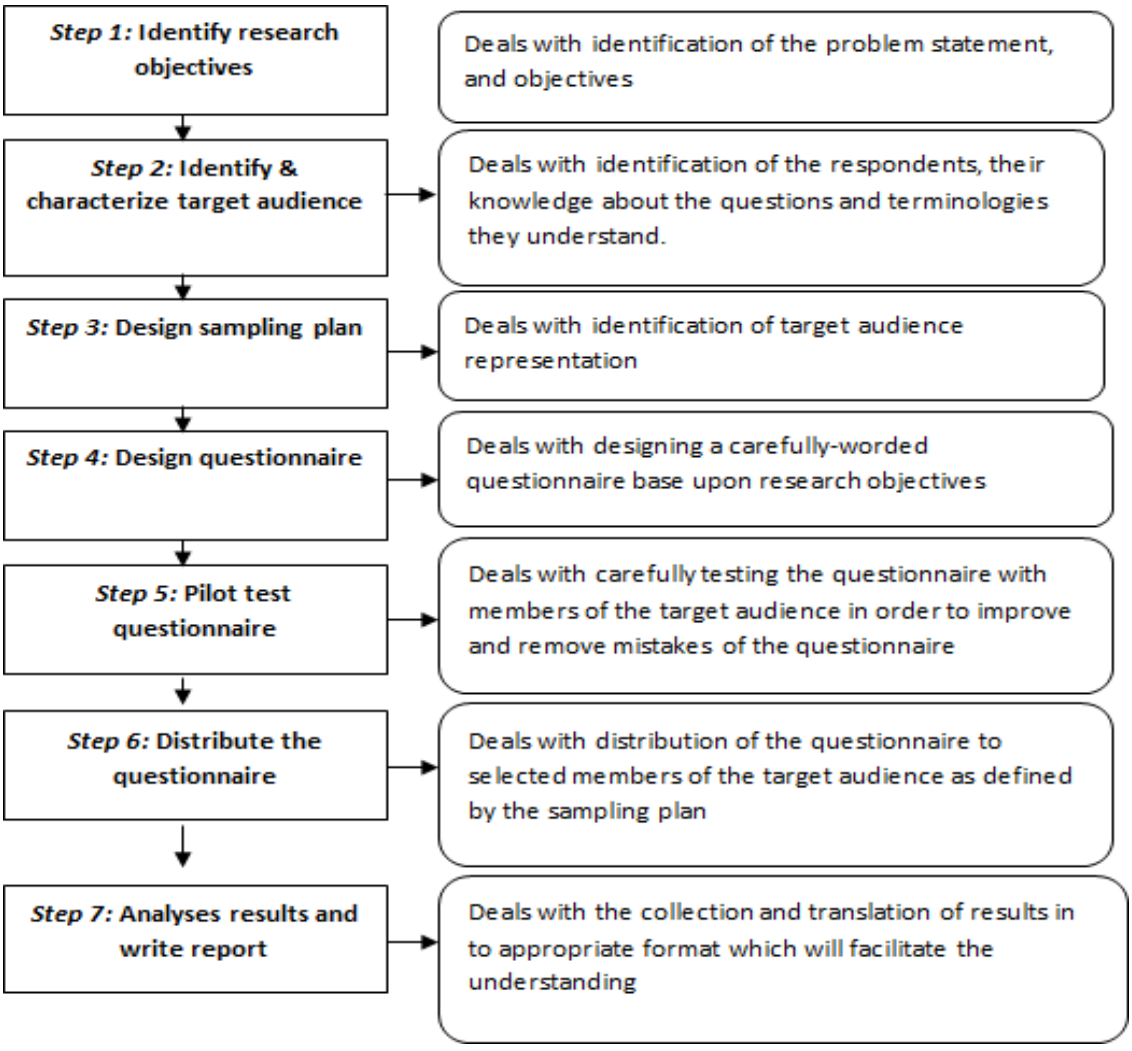

Figure 3. 1 Survey Stages

As the focus area was human value-based software engineering from the developer perspective, so the first step is to highlight those human values which may affect and disturb the working in software engineering from the developer perspective. in the next concern people or groups were picked, those persons who can easily answer whether human values affect directly in the software engineering process. The only selective answer can be retrieved by software developers because developers or programmers are the key persons which can easily give their experience that whether human values affect directly in the software engineering process. There was no much need for a design sampling plan as well as designing of the questionnaire because Shawartz 's "basic theory of human values" picked to find the answer of concern question that what are the factors that may affect values-based software engineering from a developer perspective and weather human values affect directly in the software engineering process.

Distributed to the industry to the software developers the values that can affect software developer's performance. And due to those values results or the final ending of the project affected or change. The key focus is to get the answers to two questions which are they have to identify the values and what is mean by human values. And those human values can create a problem with the final findings and all those results or result in Software engineering from a developer perspective respectively.

3.4.1 Identify research Objectives

The important phase of the survey is to check and identify whether human values may have an important role in Software engineering from the developer perspective. A research objective is to get the answer and to identify the values and what is mean by human values. And those human values can create a problem with the final findings and all those results or result in Software engineering from a developer perspective respectively.

3.4.2 Identify and Characterize Target Audience

The concern and desired audience of this research are engineers specifically working in Software engineering as developers. Our main area of focus is software developers. As some studies are mentioned in the table but we are going to follow human values in the light of Shalom H. Schwartz's studies. Plenty of people on board and can reach out for research purposes, but as developer perspective was the key focus area of reach and have to find those human aspects which may affect the final findings and results from the developer perspective in |SE while development. Shalom H. Schwartz design a questionnaire regarding all those values or factors which can create problems with the final results or final findings and all those results. But it is going to discuss it from the developer's point of view.

3.4.3 Design Sampling Plan

Numerous software houses are communicated, the number of these software houses directly depends on strength of their developer. Software house must be using developer platform. Purposive sampling strategy has been used because our audience is a specific group and accessing them was difficult. A contact individual from the amplitude was chosen so that the survey could be sent to the related section and careful input can be collected.

3.4.4 Design Questionnaire

The questionnaire which is packed for the survey was designed by Schwartz, and it is known as the theory of Schwartz's theory.it is carefully designed for identifying the values that can affect a software developer’s performance. Mentioned studies of H. Schwartz in the second chapter in the table but we are going to follow human values in the light of Shalom H. Schwartz studies. Shalom H. Schwartz design a questionnaire regarding all those values or factors which can create problems with the final results or final findings and all those results. But it is going to be discussing it from the developer's

point of view.

And due to those values results or the final ending of the project affected or change. It proves the main area of focus while collecting the info of human value-based Software engineering.

Table 3.2 Questions for designing Questionnaire

Q1 How will be the survey is mediated?
Q2 What page design and formatting will be the most effective according to our needs and requirement?

3.4.5 Pilot Test Questionnaire

Questionnaire tested by different experts of their relevant filed like a developer in development filed and same likely designer in designing field. All these developers and Engineers gave their 100% in command to give any further suggestions of the questionnaire.

3.4.6 Distribute Questionnaire

The questionnaire is distributed to industry to the software developers the values that can affect software developer's performance. And due to those values results or the final ending of the project affected or change.

3.4.7 Analyses Results and Write Report

Results are generated and analyzed from the questionnaire for those values who can create a problem the results or final results of developers reported accordingly.

3.5 Chapter Summary

Working outline and survey methodology are discussed in this 3rd chapter. The methodology of our research surveys. Outcomes of the research questions are also acknowledged and highlighted. There are three research questions with their methodologies and outcomes. In an operational framework, research is planned from opening to ending. The outline of the whole research procedure is debated and research is separated into and changed phases. Each phase consists of some tasks that are involved in the research process. From classifying the research aims to examining the results of the outcomes, 7 main survey steps will be followed next. every step contains a set of responsibilities and some important tasks that must be fulfilled to complete a survey and to get the final desired outputs or results.

CHAPTER 4

SURVEY RESULTS AND VALIDATION

4.1 Introduction

Chapter 3 discuss the methodology and steps followed for survey conduction. While this Chapter illustrates the result of the survey. And correlations between different results and findings.

4.2 Survey Conduction

Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 participants were contacted in order perform this survey or research phase. This study contributes towards the Software requirement body of knowledge, more specifically toward the software engineering body of knowledge. Our area of focus of survey is from developer perspective, so the target audience for our research was software developers. All the information regarding the survey steps, objectives, choice of concern audience, to conduct the survey is reported in Chapter 3. A survey was conducted by following the survey guidelines of Kasunic [21]. The questionnaire was sent to the target audience and the list of the companies is attached in Appendix B. The questionnaire contained three main sections. in the first section of the questionnaire, a basic introduction of human value-based Software engineering is given to them who are going to give their responses

in that survey.

In section two basic personnel information of the respondent is gathered within the same questionnaire like Name, Education, Experience and Job Descriptions, etc. in the third section which is the last one too, comprised of the questions to check the human values aspects that may affect the final findings or desired outcomes from a developer perspective in Software engineering process. Section III of the questionnaire was designed to check those factors which may create a problem in the final ending or results from the developer's perspective in that process.

All information is required to be filled and completed by the surveyor end, like personnel information of the respondent is gathered within the same questionnaire like Name, Education, Experience and Job Descriptions, etc.

The email almost sends to around 40 people and changed software houses or organizations and persons individually, the online response was not good enough; the ratio of responses was too slow and late so it was really hard to collect the desired response. So hard copies of the survey then given to the concerned people and organizations. By visiting the software house and concern with people physically, it becomes possible to get a response of around 100 plus people. Finally, by combining all the responses, a total of 104 were received. Thus, 104 responses were used in our data analysis.

4.3 Descriptive Statistics of Respondents

2nd part of the questionnaire is to examine the respondent's info detail or background/Bio. The respondents asked about their Names, Qualifications, Designation, and Organization Names.

Table 4.1 shows the distribution of respondents based on their designation in the organization.

Table 4.1: Distribution of Respondents, Based Upon Their Position in Organization

Sr.no	Position in Organization	Frequency
1	.NET DEVELOPER	10
2	Android/Mobile App Developer	9
3	Game/Unity Developer	2
4	Sr. Software Developer, Jr. Software Developer, Software Engineer	19
5	CEO, Head of Department, Owner	5
6	Business Developer, Business Analyst	5
7	Project Manager, Manager, IT Admin, Server Admin, Entergy, Team Lead, Assistant Manager, Architect, Technical Consultant	15
8	Sr. Etl Developer, PHP Developer, Real Native/React Native Developer, Node JS	15
9	Web Developer, UI/UX Designer, Word Press Developer	12
10	IOS Developer, Freelancer, Flutter Developer, Functional Consultant	5
11.	ERP, Dynamic, DB Developer, CRM Developer	3
12	SEO Expert	3
	Total	104

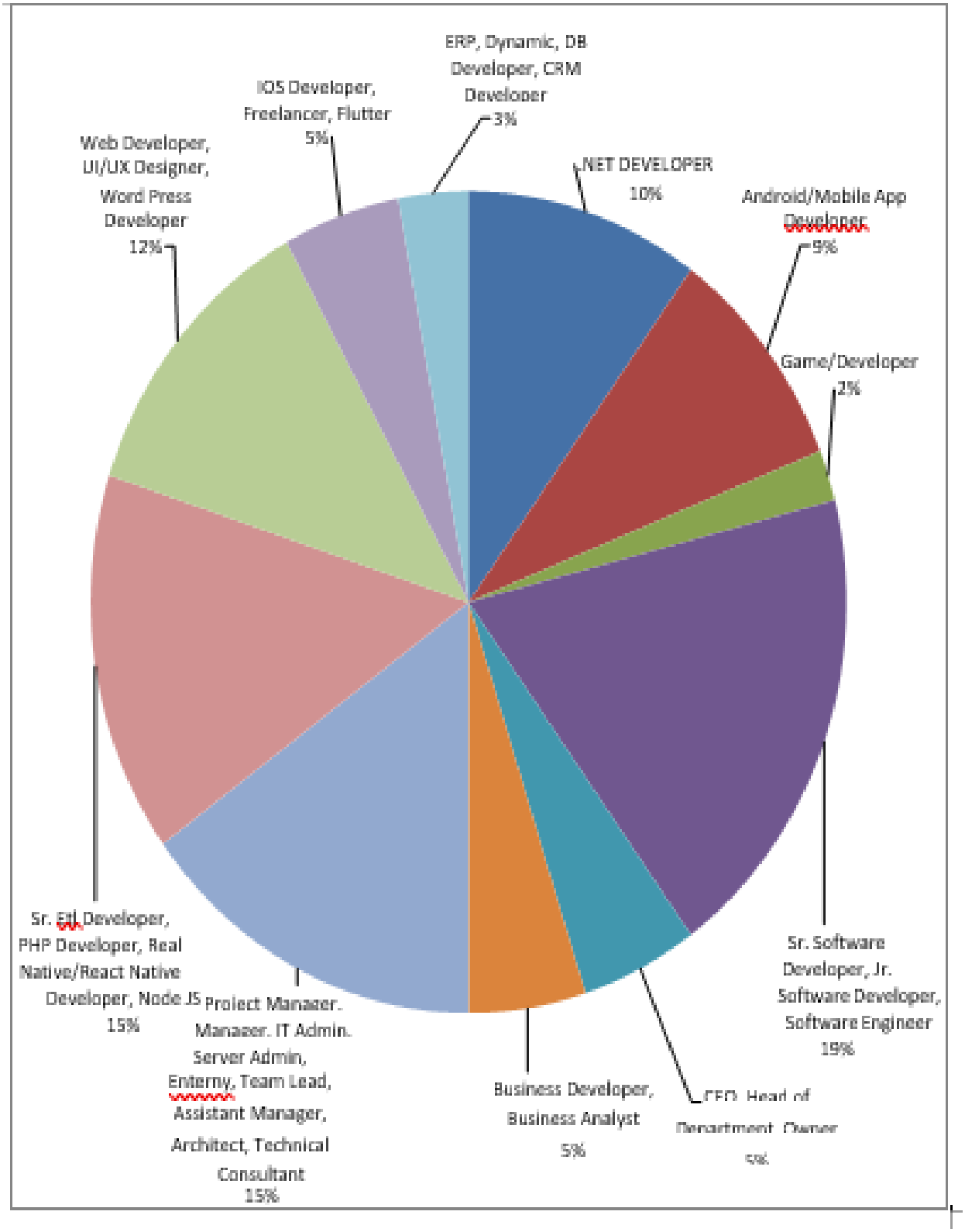

Figure 4.1: Developers Designation

4.4 Result Analysis Related to Human Values

This section reports the result related to human values-based Software engineering from the developer perspective. The analysis is made on the key point that what types of human values can impact the final findings and all those results or results, and due to those factors, the final results may be changed.

4.5 Human Value Based Software Engineering from Developer's Perspective

The purpose of conducting this part of the survey was to check the human values that can impact the final findings and all those results or results, and due to those factors, the final results may be changed. From 0-4 (Neutral 0, Agree 2, Strongly Agree-1 Strongly Disagree-4, Disagree 3).

4.5.1 Testing Results/Statistics

SPSS tool was used for analysis. All those values can impact the final findings and all those results or results, and due to those factors, the final results may be changed. from 0-4(Neutral 0, Strongly Agree-1, Agree 2, Strongly Disagree-4, Disagree 3). Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 participants. This study contributes towards the Software engineering body of knowledge, more specifically toward the software engineering body of knowledge. Due to these academicians and practitioners can get the guidelines related to the ongoing challenges and their solutions from a developer perspective in Software engineering. Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 participants. SPSS tool was used for analysis. All those values can impact the final findings and all those results or results, and due to those factors, the final results.

Table 4.2: creativity or new ideas from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	strongly agree	60	57.7	58.3	58.3
	Agree	39	37.5	37.9	96.1
	strongly disagree	4	3.8	3.9	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 1. when asked by developers that Thinking up new ideas and being creative is significant to you. Result against the first question which was. In that 57.7% strongly agreed that now doubt about that news ideas and thoughts are always meaningful and helping for a good developer and it is always being creative is significant to you impact on, while 37.5% agreed and 3.8% strongly disagree.

Table 4.3: It is important to you to be rich

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	17	16.3	16.5	16.5
	strongly agree	14	13.5	13.6	30.1
	agree	61	58.7	59.2	89.3
	disagree	11	10.6	10.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
	Total	104	100.0 %		

In mentioned question, developers gave the response to the question: 2. when asked from developers is it important for developers or coders to be rich, or to be in good condition economically. The response against the question it is important to you to be rich. Result against 2nd question which was. In that 16.3 % neutral 13.5% strongly agreed that It is important to you to be rich, while 58.7% agreed and 10.6% strongly disagree.

Table 4. 4: Responses against equally treated

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	11	10.6	10.7	10.7
	strongly agree	38	36.5	36.9	47.6
	Agree	36	34.6	35.0	82.5
	Disagree	18	17.3	17.5	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 3. when asked from developers that are it important to you as a developer perspective “that every person in the world be treated equally”. Result against 3rd question which was 10.6 % neutral 36.5% strongly agreed 34.6% agreed and 17.3% disagree that It is significant and most important aspect form developer perspective that every developer must be treated same like others. There should be no discernment and discrimination at working place from the developer's perspective.

Table 4.5: Importance of abilities from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	5	4.8	4.9	4.9
	strongly agree	41	39.4	39.8	44.7
	Agree	46	44.2	44.7	89.3

	strongly disagree	11	10.6	10.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response to the question: 4. when asked from developers that is It significant to you to show your abilities. Result against 4th question which was 4.8 % neutral 39.4% strongly agreed 44.2% agreed and 10.6% strongly disagree. From the developer's perspective, the developer needs to have abilities and command on its work.

Table 4.6: Secure surroundings from developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	5	4.8	4.9	4.9
	strongly agree	63	60.6	61.2	66.0
	Agree	23	22.1	22.3	88.3
	strongly disagree	4	3.8	3.9	92.2
	Disagree	8	7.7	7.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave a response to the question: 5. When asked by developers, is it important or does the safe and secure surroundings matters a lot from the developer perspective. Result against 5th question which was 4.8 % neutral 60.6% strongly agreed 22.1% agreed and 3.8% strongly disagree and 7.7% disagree. that it is much important and required a safe and secure place for working from the developer perspective, it is required for developers to show their skills and abilities.

Table 4.7: Having lots of things in life. at the same time

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	11	10.6	10.7	10.7
	strongly agree	44	42.3	42.7	53.4
	Agree	32	30.8	31.1	84.5
	strongly disagree	4	3.8	3.9	88.3
	Disagree	12	11.5	11.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 6. when asked from developers that is it significant for developer perspective to do lots of and changed things at a same in life. Result against 6 the question which was 10.6 % neutral 42.3% strongly agreed 30.8% agreed and 3.8% strongly disagree and 11.5% disagree. Developers think that to reduce the boring routine it is important to have plenty of things or and changed things at the same times in life.

Table 4.8: As a developer perspective following the rules every time

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	8	7.7	7.8	7.8
	strongly agree	33	31.7	32.0	39.8
	Agree	21	20.2	20.4	60.2
	strongly disagree	11	10.6	10.7	7.9
	Disagree	30	28.8	29.1	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response to the question: no 8. when asked by the developer that people should follow rules? at any cost at all times, even when no one is watching. Result against 7th question which was 7.7 % neutral 31.7% strongly agreed 20.2% agreed and 10.6% strongly disagree and 28.8% disagree that. According to the response from developers that developers must follow rules at any condition does not matter if someone watching or not.

Table 4.9: Developers must listen to people who are and changed from them

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	3	2.9	2.9	2.9
	strongly agree	32	30.8	31.1	34.0
	Agree	48	46.2	46.6	80.6
	strongly disagree	4	3.8	3.9	84.5
	Disagree	16	15.4	15.5	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 8. when the question was asked from developers that is it important to you to listen to other developers who are diverse and change from you. Result against 8th question which was2.9% neutral 30.8% strongly agreed 46.2% agreed and 3.8% strongly disagree and 15.4% disagree. Those developers think that is necessary to listen to everyone from a developer perspective in SE while developing.

Table 4.10: Satisfied from developer perspective with what they have

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	12	11.5	11.7	11.7
	strongly agree	31	29.8	30.1	41.7
	Agree	32	30.8	31.1	72.8

	strongly disagree	8	7.7	7.8	80.6
	disagree	20	19.2	19.4	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question:9. When the question asked from developers that Do developer believes that developers should be satisfied with what they have or their performance. Result against 9th question which was 11.5% neutral 29.8% strongly agreed 30.8% agreed and 7.7% strongly disagree and 19.2% disagree that developers think that it is significant that there must be satisfied from the developer perspective. It is much needing that developers should be satisfied with what they have or what they have achieved.

Table 4.11: Is pleasure important from the developer perspective in and changed things

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	15	14.4	14.6	14.6
	strongly agree	42	40.4	40.8	55.3
	Agree	24	23.1	23.3	78.6
	strongly disagree	7	6.7	6.8	85.4
	Disagree	15	14.4	14.6	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 10. When a question is asked from a developer about it is important to you to do things that give you pleasure. Result against 10th question which was 14.4% neutral 40.4% strongly agreed 23.1% agreed and 6.7% strongly disagree and 14.4% disagree. Developers gave their

response upon whether they think pleasure in life is important or not from the developer perspective. Pleasure is an important element of everyone's life but as per the developer perspective, developers need to give their 100.

Table 4.12: It is important to you to make your own decisions about what you do

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	11	10.6	10.7	10.7
	strongly agree	30	28.8	29.1	39.8
	Agree	52	50.0	50.5	90.3
	strongly disagree	10	9.6	9.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 11. Developers need to make their own decisions as per the developer's perspective about what they do according to development. Result against 11th question which was 10.6% neutral 28.8% strongly agreed 50% agreed and 9.6% strongly disagree, that developer needs to make your own decisions about what you do.

Table 4.13: Is it necessary to help other developers around you

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	5	4.8	4.9	4.9
	strongly agree	49	47.1	47.6	52.4
	Agree	24	23.1	23.3	75.7
	Disagree	25	24.0	24.3	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 12. Do you think to provide support and help to the other developers around yourself at working place while developing? Result against 11th question which was 4.8% neutral 47.1% strongly agreed 23.1% agreed and 24% disagree, developers, think that developer perspective must be helpful and supportive for the other developer's perspective at working place while development.

Table 4.14: Being very successful is important to you from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	10	9.6	9.7	9.7
	strongly agree	49	47.1	47.6	57.3
	Agree	28	26.9	27.2	84.5
	strongly disagree	7	6.7	6.8	91.3
	Disagree	9	8.7	8.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 13. Being very successful is important to you. Result against 13th question which was 9.6% neutral 47.1% strongly agreed 26.9% agreed and 6.7% strongly disagree 8.7% disagree that It is important for the developer to Being very successful is important for him/her.

Table 4.15: Is important from a developer's perspective to be in a safe country

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	17	16.3	16.5	16.5
	strongly agree	37	35.6	35.9	52.4
	Agree	42	40.4	40.8	93.2
	strongly disagree	7	6.7	6.8	100.0 %
	Total	103	99.0	100.0 %	

Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 14. In mentioned question, developers gave the response of the question: 14. Developers consider the importance of a safe country. It matters to you that you are safe in your country. Result against 14th question which was 16.3% neutral 35.6% strongly agreed 40.4% agreed and 6.7% strongly disagree that It is important for a developer that your country is safe.

Table 4.16: You like to take risks

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	15	14.4	14.6	14.6
	strongly agree	49	47.1	47.6	62.1
	Agree	39	37.5	37.9	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 15. You like to take risks. Result against 15th question which was 14.4% neutral 47.1% strongly agreed 37.5% agreed, that It is important for the developer to take risks. The more you risky, the more skilled from a developer's perspective in software engineering.

Table 4.17: Is important from a developer perspective to behave always properly

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	7	6.7	6.8	6.8
	strongly agree	29	27.9	28.2	35.0

	Agree	40	38.5	38.8	73.8
	Disagree	27	26.0	26.2	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of the question: 16. It is important to you always to behave properly. Result against 16th question which was 6.7% neutral 27.9% strongly agreed 38.5% agreed 26 % disagree, that it is significant and aimed at developer side to always behave correctly and properly. Attitude matters in the working place, from a developer's perspective every developer must behave properly at every time.

Table 4.18: Is it important from a developer's perspective to charge and tell others what to do?

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	32	30.8	31.1	31.1
	strongly agree	26	25.0	25.2	56.3
	Agree	24	23.1	23.3	79.6
	strongly disagree	7	6.7	6.8	86.4
	Disagree	14	13.5	13.6	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 17. Leading from the front from a developer's perspective is the more effective thing and everyone wants to be part of it in software engineering from the developer perspective. Result against 17th question which was 30.8% neutral 25% strongly agreed 23.1% agreed6.7 % strongly disagree and 13.5 % disagree. It matters Leading from the front as a developer's

perspective is the more effective thing and everyone wants to be part of it in software engineering from a developer perspective.

Table 4.19: Is the loyal friend is important for you as a developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	12	11.5	11.7	11.7
	strongly agree	53	51.0	51.5	63.1
	Agree	26	25.0	25.2	88.3
	strongly disagree	12	11.5	11.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 19. Respondent has the view point to be faithful and loyal to your collegians as per developer perspective. Result against 18th question which was 11.5% neutral 51% strongly agreed 25% agreed 11.5 % strongly disagree, that the developer to you needs to be loyal to your friends.

Table 4.20: Does environment matter from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	10	9.6	9.7	9.7
	strongly agree	28	26.9	27.2	36.9
	Agree	46	44.2	44.7	81.6
	Disagree	19	18.3	18.4	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 19. Looking after

the environment is important to you. Result against 19th question which was 9.6% neutral 26.9% strongly agreed 44.2% agreed 11.3 % disagree, that It is important and matter for developers to have the good environment as per developer perspective.

Table 4.21: Religious belief is important to you

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	4	3.8	3.9	3.9
	strongly agree	58	55.8	56.3	60.2
	Agree	23	22.1	22.3	82.5
	strongly disagree	7	6.7	6.8	89.3
	Disagree	11	10.6	10.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of question no: 20. Religious belief is important to you. Result against 20th question which was 3.8% neutral 55.8% strongly agreed 22.1% agreed 6.7% strongly disagree and 10.6% disagree, that It is important for a developer that Religious belief is important to you.

Table 4.22: Is important to be organized and cleans from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	15	14.4	14.6	14.6
	strongly agree	51	49.0	49.5	64.1
	Agree	29	27.9	28.2	92.2
	Disagree	8	7.7	7.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 21. It matters from the developers' perspective that things must be well and well organized. Moreover, if the surrounding is neat and cleans as per developers' perspective, so it means a lot and will improve the working of developers in software engineering. Result against 21st question which was 14.4% neutral 49% strongly agreed 27.9% agreed 7.7% disagree and 10.6% disagree, that It is important for the developer to you that things be organized and cleans.

Table 4.23: Is it important to be curious from the developer and try to understand all sorts of things?

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	19	18.3	18.4	18.4
	strongly agree	18	17.3	17.5	35.9
	Agree	53	51.0	51.5	87.4
	strongly disagree	8	7.7	7.8	95.1
	Disagree	5	4.8	4.9	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 22. As shown in table 4.23 the respondent shared the opinion. Results 18.3% neutral, 17.3% strongly agree, 51.0% agree, 7.7% strongly disagree and 4.8% disagree respectively. The search for new things and skills from the developer's perspective always helpful. Curiosity cannot be finished from life as per developer perspective.

Table 4. 24: Is important to Promoting peace between all groups in the world from developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	8	7.7	7.8	7.8

	strongly agree	58	55.8	56.3	64.1
	Agree	33	31.7	32.0	96.1
	strongly disagree	3	2.9	2.9	99.0
	Disagree	1	1.0	1.0	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 23. As shown in table 4.24 the respondent shared the opinion of the importance that Encouraging and promoting harmony and peace between all groups in the world especially from the developer perspective. Results 7.7% neutral, 55.8% strongly agree, 31.7% agree, 2.9% strongly disagree and 1.0% disagree respectively. peace and harmony among all the employees working in the same place from a developer perspective are much more important and value able thing.

Table 4.25: You think it is important to be ambitious

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	19	18.3	18.4	18.4
	strongly agree	52	50.0	50.5	68.9
	Agree	26	25.0	25.2	94.2
	Disagree	6	5.8	5.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response to question no: 24. As shown in table 4.25 the respondent shared the opinion of the importance to be ambitious. Results 18.3% neutral, 50.0% strongly agree, 25.0% agree, and 5.8% disagree respectively. Everyone wants to progress and bright future in his life from a developer perspective in

software engineering.

Table 4.26: Do you think as a developer, is it the best way to do things traditionally?

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	8	7.7	7.8	7.8
	strongly agree	27	26.0	26.2	34.0
	Agree	33	31.7	32.0	66.0
	strongly disagree	21	20.2	20.4	86.4
	Disagree	14	13.5	13.6	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 25. As shown in table 4.26 the respondent shared the opinion of the importance that Promoting peace among all groups in the world. Results 7.7% neutral, 55.8% strongly agree, 31.7% agree, 2.9% strongly disagree and 1.0% disagree respectively.

Table 4.27: Enjoying life’s pleasures from a developer's perspective is important for you

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	12	11.5	11.7	11.7
	strongly agree	44	42.3	42.7	54.4
	Agree	32	30.8	31.1	85.4
	strongly disagree	15	14.4	14.6	100.0 %

	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 26. As shown in table 4.26 the respondent shared the opinion of the importance that Enjoying life's pleasures. Results collected from the survey are 11.5% neutral, 42.3% strongly agree, 30.8% agree, 14.4% strongly disagree respectively. Performance in software engineering in the sense of development from a developer perspective is directly interlinked with the pleasure of the life of developers.

Table 4. 28: Is it necessary or important to respond to everyone from the developer perspective

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	9	8.7	8.7	8.7
	strongly agree	27	26.0	26.2	35.0
	Agree	46	44.2	44.7	79.6
	strongly disagree	13	12.5	12.6	92.2
	Disagree	8	7.7	7.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 27. As presented in table 4.28 the respondent shared the opinion of the importance that to reply to the needs of others or respond to other's requests from the developer perspective. Results collected from the survey are 8.7% neutral, 26.0% strongly agree, 44.2% agree, 12.5% strongly disagree and 7.7% disagree respectively.

Table 4. 29: Is important from the developer's perspective to be obedient

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	16	15.4	15.5	15.5
	strongly agree	33	31.7	32.0	47.6
	Agree	32	30.8	31.1	78.6
	Disagree	22	21.2	21.4	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 28. Presented in table 4.29 the respondent shared the opinion of the importance to you to be obedient. Results collected from the survey are 15.4% neutral, 31.7% strongly agree, 30.8% agree, 21.2% disagree respectively. Regards and obedient-ness are always mattered, from the developer perspectives it means a lot.

Table 4.30: Is important from the developer's perspective to protect the weakness or weak point in society.

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	14	13.5	13.6	13.6
	strongly agree	33	31.7	32.0	45.6
	agree	49	47.1	47.6	93.2
	disagree	7	6.7	6.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 29. Presented in

table 4.30 respondents shared the opinion of important to you to protect the weak in society. Results collected from the survey are 13.5% neutral, 31.7% strongly agree, 47.1% agree, 6.7% disagree respectively.

Table 4.31: Is significant to you to enjoy exciting life

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	14	13.5	13.6	13.6
	strongly agree	39	37.5	37.9	51.5
	Agree	43	41.3	41.7	93.2
	Disagree	7	6.7	6.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of question no: 30. As shown in table 4.31 the respondent shared the opinion of important to have an exciting life. Results collected from survey are 13.5% neutral, 37.5% strongly agree, 47.3% agree, 6.7% disagree respectively. An exciting and joyful life is the requirement of everyone, as per the developer perspective, exciting life must be required of better performance from the developer's perspective while developing.

Table 4.32 Staying healthy is very important to you

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	3	2.9	2.9	2.9
	strongly agree	48	46.2	46.6	49.5
	Agree	37	35.6	35.9	85.4
	strongly disagree	8	7.7	7.8	93.2
	Disagree	7	6.7	6.8	100.0 %

	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 31. Presented in table 4.32 the respondent shared the opinion of the importance of staying healthy and having sound life. Results collected from the survey are 2.9% neutral, 46.2% strongly agree, 35.6% agree, 7.7 strongly disagree 6.7% disagree respectively. Health is directly proportioned to development from a developer perspective in software engineering.

Table 4.33: From the developer perspective is life important to you. Do you struggle to perform better than other developers?

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	15	14.4	14.6	14.6
	strongly agree	45	43.3	43.7	58.3
	Agree	28	26.9	27.2	85.4
	strongly disagree	1	1.0	1.0	86.4
	Disagree	14	13.5	13.6	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 32. Presented in table 4.33 the respondent shared the opinion of importance to strive to do better than others. Results collected from survey are 14.4% neutral, 43.3% strongly agree, 26.9% agree, 1.0% strongly

Table 4.34 is important from a developer perspective to forgiving those who hurt developers.

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	30	28.8	29.1	29.1
	strongly agree	30	28.8	29.1	58.3
	Agree	36	34.6	35.0	93.2
	Disagree	7	6.7	6.8	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 33. displayed in table 4.34 respondent shared the opinion that it is important from a developer perspective to be Sympathetic and forgiving the others, who have unhappy you and hurt you before this. Results collected from the survey are 28.8% neutral, 28.8% strongly agree, 34.6% agree, 6.7% disagree respectively.

Table 4.35 It is important to you to be independent.

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	8	7.7	7.8	7.8
	strongly agree	45	43.3	43.7	51.5
	Agree	24	23.1	23.3	74.8
	strongly disagree	13	12.5	12.6	87.4
	Disagree	13	12.5	12.6	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 34. Presented in table 4.35. the respondent shared the opinion of the importance **to** be independent in every decision. Results collected from the survey are 7.7% neutral, 43.3% strongly agree, 23.1% agree, 12.5% strongly disagree and 12.5% disagree respectively. Without any intervention or involvement, developers can give their 100 % while developing in software engineering from a developer's perspective.

Table 4.36: Having a stable government is important to you.

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	strongly agree	42	40.4	40.8	40.8
	Agree	36	34.6	35.0	75.7
	strongly disagree	5	4.8	4.9	80.6
	Disagree	20	19.2	19.4	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of question no: 35. As presented in Table 4.36, respondents shared the opinion of important a stable government. Results collected from the survey are 40.4% strongly agree, 34.6% agree, 4.8% strongly disagree and 19.2% disagree respectively. as it is essential for every citizen of every country to have a stable government or stable system of the country, so it is much required a stable and constant system of the country from a developer perspective as well.

Table 4.37: Is significant from the developer perspective to be polite with other persons all the time

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	28	26.9	27.2	27.2

	strongly agree	28	26.9	27.2	54.4
	Agree	20	19.2	19.4	73.8
	Disagree	27	26.0	26.2	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response to question no: 36. As presented in table 4.37 respondents shared the opinion that a developer must be polite and humble with other colleagues and fellows while developing in software engineering. Most developers do not want to have any type of disturbance or problem while development time. Results collected from the survey are 26.9% neutral, 26.9% strongly agree, 19.2%, agree and 26% disagree respectively. Results came from the developer perspectives that do not interrupt or bother other developers while working environment.

Table 4.38 is important from the developer perspective that having a good time in life

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	9	8.7	8.7	8.7
	strongly agree	51	49.0	49.5	58.3
	Agree	33	31.7	32.0	90.3
	Disagree	10	9.6	9.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response the question no: 37. As presented in tabletop 4.38 the respondent shared the opinion of important having a good time is

very important. Results collected from the survey are 8.7% neutral, 49.0% strongly agree, 31.7%, agree and 9.6% disagree respectively. Developers think that having a good time whiles development is directly linked with having a good time in life from the developer perspective.

Table 4.39 is important from the developer's perspective that the developer must be humble and modest.

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	5	4.8	4.9	4.9
	strongly agree	50	48.1	48.5	53.4
	agree	36	34.6	35.0	88.3
	disagree	12	11.5	11.7	100.0 %
	Total	103	99.0	100.0 %	
Missing	System	1	1.0		
Total		104	100.0 %		

In mentioned question, developers gave the response of question no: 38. As presented in Table 4.39, respondents shared the opinion of the importance to be humble and modest. Results collected from the survey are 4.8% neutral, 48.1% strongly agree, 34.6%, agree and 11.5% disagree respectively. Developers showed their response that, developers must be humble and must be modest in their working and profession.

Table 4.40: You always want to be the one who makes the decisions. You like to be the leader

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	19	18.3	18.4	18.4
	strongly agree	33	31.7	32.0	50.5
	agree	37	35.6	35.9	86.4
	disagree	14	13.5	13.6	100.0 %
	Total	103	99.0	100.0 %	

Missing	System	1	1.0		
Total results		104	100.0 %		

In mentioned question, developers gave the response to question no: 39. As publicized in table 4.40 respondents shared the opinion of it important to always want to be the one who makes the decisions. You like to be the leader. Results collected from the survey are 18.3% neutral, 31.7% strongly agree, 35.6%, agree and 13.5% disagree respectively. Most developers agreed to have strong decision-making or policy-making position while developing. Developers, one should be independent in his decisions from developers' perspective while developing in software engineering.

Table 4.41 is important from the developer's perspective to adjust to nature

		Frequency	Percent %	Valid Percent %	Cumulative Percent %
Valid	Neutral	16	15.4	15.5	15.5
	strongly agree	39	37.5	37.9	53.4
	Agree	29	27.9	28.2	81.6
	strongly disagree	7	6.7	6.8	88.3
	Disagree	12	11.5	11.7	100.0 %
	Total results	103	99.0	100.0 %	
Missing	System	1	1.0		
Total results		104	100.0 %		

In mentioned question, developers gave the response of question no: 40. As publicized in table 4.41 the respondent shared the opinion of importance that you may fit in nature. You like to be the leader. Results collected from the survey are 15.4% neutral, 37.5% strongly agree, 29.9%, 11.5 % strongly disagree agree and 11.5% disagree respectively. A mixed response came from the developers' side, some developers showed their concerns that developers should fit themselves with nature and according to every condition or circumstance. Whereas some developers do not believe so much that developers should fit themselves with nature and according to every condition or

circumstances.

4.6 Correlation

4.6.1 Achievement

As capability, success and ambitious lies in same group which is Achievement so all these values capability, success and ambitious are correlated with each other as shown in Table 4.42.

Table 4.42 Correlation for Achievement

Correlations

		Capability	Successful	Ambitious
Capability	Pearson Correlation	1	.344**	-.239*
	Sig. (2-tailed)		.001	.028
	N	84	84	84
Successful	Pearson Correlation	.344**	1	-.015
	Sig. (2-tailed)	.001		.891
	N	84	84	84
Ambitious	Pearson Correlation	-.239*	-.015	1
	Sig. (2-tailed)	.028	.891	
	N	84	84	84

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

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

4.6.2 Benevolence

Spiritual Life, Meaningful Life, Forgiving and Sense of Belonging lies in same group which is Benevolence so in results Spiritual Life is not correlated with honest and, Spiritual Life is not correlated with Sense of Belonging. remaining all of them are

correlated.

Table 4.43 Correlation for Benevolence

Correlations					
		Spiritual Life	Meaningful Life	Forgiving	Sense of Belonging
True Friendship	Pearson Correlation	.026	-.086	.519**	-.156
	Sig. (2-tailed)	.816	.436	<.001	.157
	N	84	84	84	84
Helpful	Pearson Correlation	.023	.359**	.267*	-.030
	Sig. (2-tailed)	.836	<.001	.014	.788
	N	84	84	84	84
Forgiving	Pearson Correlation	.219*	-.219*	.167	.069
	Sig. (2-tailed)	.045	.045	.129	.531
	N	84	84	84	84
Honest	Pearson Correlation	.365**	.208	.131	.299**
	Sig. (2-tailed)	<.001	.057	.233	.006
	N	84	84	84	84
Spirtual Life	Pearson Correlation	1	-.004	-.066	.553**
	Sig. (2-tailed)		.972	.549	<.001
	N	84	84	84	84
Meaningful Life	Pearson Correlation	-.004	1	-.159	.247*
	Sig. (2-tailed)	.972		.148	.023
	N	84	84	84	84
Forgiving	Pearson Correlation	-.066	-.159	1	-.242*
	Sig. (2-tailed)	.549	.148		.027
	N	84	84	84	84
Sense of Belonging	Pearson Correlation	.553**	.247*	-.242*	1
	Sig. (2-tailed)	<.001	.023	.027	
	N	84	84	84	84

4.6.3 Conformity

Honoring elders and objectiveness lies in same group which is conformity so according to the results Honoring elders and objectiveness are correlated with each other.

Table 4.44 Correlation for Conformity

Correlations			
		Honoring Elders	Objectiveness
Honoring Elders	Pearson Correlation	1	.006
	Sig. (2-tailed)		.957
	N	84	84
Objectiveness	Pearson Correlation	.006	1
	Sig. (2-tailed)	.957	
	N	84	84

4.6.4 Hedonism

Self-Indulgent, Enjoying Life, Objectiveness, Enjoying Life and pleasure are lies in Life Hedonism according to results pleasures and enjoying life is not correlated with each other. Whereas all remaining values are correlated.

Table 4.45 Correlation for Hedonism

Correlations					
		Exciting Life	Pleasure	Enjoying Life	Self Indulgent
Exciting Life	Pearson Correlation	1	.195	-.272*	-.053
	Sig. (2-tailed)		.075	.012	.631
	N	84	84	84	84
Pleasure	Pearson Correlation	.195	1	.072	.490**
	Sig. (2-tailed)	.075		.514	<.001
	N	84	84	84	84
Enjoying Life	Pearson Correlation	-.272*	.072	1	.365**
	Sig. (2-tailed)	.012	.514		<.001
	N	84	84	84	84

Self Indulgent	Pearson Correlation	-.053	.490**	.365**	1
	Sig. (2-tailed)	.631	<.001	<.001	
	N	84	84	84	84
Enjoying Life II	Pearson Correlation	-.027	.200	.315**	.111
	Sig. (2-tailed)	.804	.069	.004	.313
	N	84	84	84	84
Objectiveness	Pearson Correlation	.279*	.334**	-.190	-.244*
	Sig. (2-tailed)	.010	.002	.084	.025
	N	84	84	84	84

4.6.5 Power

Power Value contain Wealth, ambitious and social recognition Wealth, ambitious and social recognition are highly correlated with each other and have strong correlation bounding.

Table 4.46 Correlation for Power

Correlations				
		Wealth	Ambitious	Social Recognition
Wealth	Pearson Correlation	1	-.030	-.034
	Sig. (2-tailed)		.788	.760
	N	84	84	84
Ambitious	Pearson Correlation	-.030	1	.141
	Sig. (2-tailed)	.788		.199
	N	84	84	84
Social Recognition	Pearson Correlation	-.034	.141	1
	Sig. (2-tailed)	.760	.199	
	N	84	84	84

4.6.6 Security

Sense of belonging, security and wealth exist in security**.** Sense of belonging and security are not correlated with other according to the results.

Table 4.47 Correlation for Security

Correlations

		Security	Sense of Belonging	Healthy	Sense of Belonging
Security	Pearson Correlation	1	.467**	.250*	-.175
	Sig. (2-tailed)		<.001	.022	.111
	N	84	84	84	84
Sense of Belonging	Pearson Correlation	.467**	1	.178	.185
	Sig. (2-tailed)	<.001		.106	.092
	N	84	84	84	84
Healthy	Pearson Correlation	.250*	.178	1	.147
	Sig. (2-tailed)	.022	.106		.181
	N	84	84	84	84
Sense of Belonging	Pearson Correlation	-.175	.185	.147	1
	Sig. (2-tailed)	.111	.092	.181	
	N	84	84	84	84

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

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

4.6.7 Self-Direction

Self-direction contains creativity, independence and freedom. according to the result freedom and independence are not correlated with each other whereas remaining are correlated with each other.

Table 4.48 Correlation for Self-Direction

Correlations				
		Creativity	Independence	Freedom
Creativity	Pearson Correlation	1	-.108	.316**
	Sig. (2-tailed)		.326	.003
	N	84	84	84
Independence	Pearson Correlation	-.108	1	.364**
	Sig. (2-tailed)	.326		<.001
	N	84	84	84
Freedom	Pearson Correlation	.316**	.364**	1
	Sig. (2-tailed)	.003	<.001	
	N	84	84	84
**. Correlation is significant at the 0.01 level (2-tailed).				

4.6.8 Stimulation

Independence, Different thing in life and daring in life ae lies in value stimulation. according to the given result Independence, Different thing in life and Daring in life are closely correlated with each other.

Table 4.49 Correlation for Stimulation

Correlations				
		Independence	Different Thing in Life	Daring
Independence	Pearson Correlation	1	-.240*	-.188
	Sig. (2-tailed)		.028	.086
	N	84	84	84
Different Thing in Life	Pearson Correlation	-.240*	1	.223*
	Sig. (2-tailed)	.028		.041
	N	84	84	84
Daring	Pearson Correlation	-.188	.223*	1

	Sig. (2-tailed)	.086	.041	
	N	84	84	84

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

4.6.9 Tradition

Respect and moderate lies in Tradition activity. Where both moderate and respect are not correlated with each other.

Table 4.50 Correlation for Tradition

Correlations

		Respect	Moderate
Respect	Pearson Correlation	1	-.453**
	Sig. (2-tailed)		<.001
	N	84	84
Moderate	Pearson Correlation	-.453**	1
	Sig. (2-tailed)	<.001	
	N	84	84

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

4.6.10 Universalism

Universalism contains Equality, Peace, Spiritual Life, Wisdom and World Peace. All of them Equality, Peace, Spiritual Life, Wisdom and World Peace are highly correlated with each other in universalism.

Table 4.51 Correlation for Universalism

Correlations

		Equality	Peace	Spiritual Life	Wisdom	World Peace
Equality	Pearson Correlation	1	.042	-.309**	.243*	-.040
	Sig. (2-tailed)		.704	.004	.026	.717
	N	84	84	84	84	84
Peace	Pearson Correlation	.042	1	.289**	.126	.305**

	Sig. (2-tailed)	.704		.008	.254	.005
	N	84	84	84	84	84
Spiritual Life	Pearson Correlation	-.309**	.289**	1	.126	.496**
	Sig. (2-tailed)	.004	.008		.254	<.001
	N	84	84	84	84	84
Wisdom	Pearson Correlation	.243*	.126	.126	1	-.057
	Sig. (2-tailed)	.026	.254	.254		.606
	N	84	84	84	84	84
World Peace	Pearson Correlation	-.040	.305**	.496**	-.057	1
	Sig. (2-tailed)	.717	.005	<.001	.606	
	N	84	84	84	84	84
Unity with Nature	Pearson Correlation	.116	.172	.195	.458**	-.252*
	Sig. (2-tailed)	.295	.118	.075	<.001	.021
	N	84	84	84	84	84

4.7 Chapter Summary

This study contributes towards the Software engineering body of knowledge, more specifically toward the software engineering body of knowledge. Due to these academicians and practitioners can get the guidelines related to the ongoing challenges and their solutions from a developer perspective in Software engineering. Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 participants. SPSS tool was used for analysis. All those values can impact the final findings and all those results, due to those factors, the final results. Developers a thing, to reduce the boring routine it is important to have plenty of things and changed things the same times in life. It is much important and required a safe and secure place for working from a developer perspective; it is required for developers to show their skills and abilities. From the developer's perspective, the developer needs to have abilities and command of their work. The most important aspect from the developer perspective that every developer must be treated the same as others. There should be no discernment and discrimination at working place from the developer perspective. Those developers think that is necessary to listen to everyone from a developer perspective in SE while developing. Significantly, there must be satisfaction from the developer perspective. It is much need

that developers should be satisfied with what they have or what they have achieved. Most of the developers agreed to have strong decision-making or policy-making positions while developing. Developers should be independent in their decisions from the developer's perspective while developing in software engineering. Without any intervention or involvement, developers can give their 100 % while developing in software engineering from a developer's perspective. An exciting and joyful life is the requirement of everyone, as per the developer perspective, exciting life must be required of better performance from the developer's perspective while developing.

CHAPTER 5

CONCLUSION

5.1 Introduction

Chapter 4 illustrates the results of the survey. This Chapter provides the knowledge about human values that can create a problem in final findings and all those results in Software engineering from the developer perspective.

5.2 Research Summary

This study was done to explore the human values that can create a problem the final findings and all those results or results in Software engineering from the developer perspective. Developers may “value” tools that help them identify the best set of test cases, but may consider long planning meetings as a “waste” because they do not help them deliver a high-quality product.

Making selections in software development, developers, project engineers, and all other participants involved in conclusion making and result-making processes that involve uncertain future results and desired outcomes. All these results take place in self-motivated and varying environments and have frequently extensive effects on Software engineering. The leading theory of how people make such choices is the theory of predictable value.

The study was also related to human values, to do so we identified the impact of values from the developer's perspective regarding human value-based Software engineering.

There are two main questions of the particular research. And this research sought to answer these research questions. The key purpose to get the answer to those two questions which are These questions to have to find and identified the values and what is mean by human values. And those human values which can create a problem the final findings and all those results or result in Software engineering from developer perspective respectively.

The main purpose of this research is, critically examine the developer perspective on how human values can impact the flow of activities in software development towards values-based Software engineering.

Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 participants. SPSS tool was used for analysis. All those values can impact the final findings and all those results, due to those factors, the final results. It is much important and required a safe and secure place for working from a developer perspective; it is required for developers to show their skills and abilities. From the developer's perspective, the developer needs to have abilities and command of their work. The most important aspect from the developer perspective that every developer must be treated the same as others. There should be no discernment and discrimination at working place from the developer perspective. Those developers think that is necessary to listen to everyone from a developer perspective in SE while developing. Significantly, there must be satisfaction from the developer perspective.

The first question in the study is to identify the human aspects of value-based Software engineering developers: perspective. Those human aspects can create a problem the finding results from the developer perspective. Impact towards an existing state of practice in Human- based Software engineering. The first contribution will be a detail of human value theories related to Software engineering. And the second contribution will

be the practitioner’s perspective on human values' effect on value-based Software engineering.

Due to these academicians and practitioners can get the guidelines related to Human Aspects of Value-based Software engineering: Developer perspective ultimately affecting the quality of the gathered requirement. And in the second question, we get the results of those factors which may fact the final findings and all those results or results.

5.3 Fulfillment of Research Objectives

This study identified those basic human values from a developer perspective which may change the results in Software engineering using the survey methodology. Researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. Information gathered from a developer's perspective is very useful and can give a lot of help in future research like Developers a thing, to reduce the boring routine it is important to have plenty of things or and changed things the same times in life. It is much important and required a safe and secure place for working from a developer perspective; it is required for developers to show their skills and abilities. From the developer's perspective, the developer needs to have abilities and command of their work. Are these aspects from the developer perspective is highlighted and discuss in this research paper from developer perspective.

5.4 Academic and Practical Contributions

This study identified those basic human values from a developer perspective which may change the results. This study contributes towards the Software engineering body of knowledge, more specifically toward the software engineering body of knowledge. Due to these academicians and practitioner can get the guidelines related to the ongoing challenges and their solutions from a developer perspective in Software engineering.

5.5 Dissemination of knowledge through Publications

The extracted information from this study will be published in a paper. Working on conference paper has been completed and it is under review by supervisors and experts. Human aspects of value-based software engineering from a developer perspective are discussed in a conference paper and sooner it would be present in the conference.

5.6 Limitations of Research

In this study, researchers tried to gather pure industry-based information regarding the human aspect of value base Software engineering from the developer perspective. It was made sure to contact the most relevant people from whom; accurate information can be gathered. 103 expert their field of development in SE, participant's responses were gathered, which is considered as a small sample size. More population samples could lead to more comprehensive findings regarding challenges and their solutions. The results are interpreted as critically as possible but some mistakes may be done while interpreting the respondent's response. Moreover, only developers were contacted because results were required from developer perspective.

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APPENDIX A

Survey Questionnaire

Section 1: Respondent Background/Bio:	
Name:_____	**Qualification:**
Designation:_____	**Organization:**
Experience : _____	

Questions	
1. Thinking up new ideas and being creative is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

2. It is important to you to be rich.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
3. It is important to you that every person in the world be	○ Strongly agree
treated equally.	○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
4. It's very important to you to show your abilities.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
5. It is important to you to live in secure surroundings.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
6. it is important to you do lots of different things in life.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

7. You think people should follow rules at all times, even when no-one is watching.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
8. It is important to you to listen to people who are different from you.	○ Strongly agree ○ Agree ○ Neutral
	○ Disagree ○ Strongly disagree
9. Do you believe that people should be satisfied with what they have?	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
10. It is important to you to do things that give you pleasure.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
11. It is important to you to make your own decisions about what you do.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

12. It's very important to you to help the people around yourself.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
13. Being very successful is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
14. It is very important to you that your country be safe.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
15. You like to take risks.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
16. It is important to you always to behave properly	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

17. It is important to you to be in charge and tell others what to do	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
18. It is important to you to be loyal to your friends.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
19. Looking after the environment is important to you.	○ Strongly agree ○ Agree
	○ Neutral ○ Disagree ○ Strongly disagree
20. Religious belief is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
21. It is important to you that things be organized and cleans.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

22. Do you like to be curious and to try to understand all sorts of thing?	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
23. Promoting peace among all groups in the world is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
24. You think it is important to be ambitious.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree
	○ Strongly disagree
25. Do you think it is best to do things in traditional ways?	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
26. Enjoying life's pleasures is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

27. It is important to you to respond to the needs of others.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
28. It is important to you to be obedient.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
29. It is important to you to protect the weak in society.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
30. It is important to you to have an exciting life.	○ Strongly agree
	○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
31. Staying healthy is very important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

32. Getting ahead in life is important to you. Do you strive to do better than other.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
33. Forgiving people who have hurt you is important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
34. It is important to you to be independent.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
35. Having a stable government is important to you.	○ Strongly agree ○ Agree ○ Neutral
	○ Disagree ○ Strongly disagree
36. It is important to you to be polite to other people all the time. you try never to disturb or irritate others.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

37. Having a good time is very important to you.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
38. It is important to you to be humble and modest.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
39. You always want to be the one who makes the decisions. You like to be the leader.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree
40. It is important to you to adapt to nature and to fit into it.	○ Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly disagree

APPENDIX B

Respondent Bio Data / Detail

NAME OF THE ORGANIZATION	ADDRESS	WEBSITE
KONSTANT VARIABLES	SOFTWARE TECHNOLOGY PARK,SECTOR I9, ISLAMABAD	WWW.KONSTANTVARIABLES.COM
SMART IS	AGHA KHAN ROAD,SECTOR F5/1,ISLAMABAD	WWW.SMART-IS.COM
ADLABS	1955/H MUBASHIR MANZIL NEAR RAFI ROAD TARIQABAD,RAWALPINDI	IT PARK I-9, ISLAMABAD
ONE BITE	99-G, MODEL TOWN LAHORE	WWW.ONEBYTELLC.COM
NINESOL TECHNOLOGIES	SECTOR F8 AYUB MARKET,ISLAMABAD	WWW.NINESOL.COM
FORTLOGICS	DUBAI PLAZA,6TH ROAD,RAWALPINDI	WWW.FORTLOGICS.COM