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**Exploring the efficacy of applying personality assessment
tools at the recruitment stage to achieve personality job fit
in Iranian manufacturing organisations**

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of the requirement for the degree of Doctor of Philosophy

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DEDICATION

I am dedicating this thesis to four beloved people who mean so much to me. A special feeling of gratitude to my loving parents Jamal Shaygan and Simin-Dokht Nadimi, whose love and prayers always surrounded me until I become what I am now. To my brother Ali and my sister Maryam for the constant source of support and encouragement in my life.

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ABSTRACT

The purpose of this thesis is to explore the efficacy of applying personality assessment tools at the recruitment stage to achieve personality job fit in Iranian manufacturing organisations. To reach this purpose, multi-concept approach research was used to find an explanation for the questions being studied. This approach involves the search in Human Resource Management, recruitment strategies, occupational psychology, and cross-cultural differences topics.

The topic of personality assessment tools has been studied by researchers for many years, however, it is still a new concept and sometimes unfamiliar to some Iranian organisations. Since applying personality assessment tools at the recruitment stage is generally one of the tasks of human resource departments, it was necessary to study the topic of HRM in Iran before examining the concept of personality assessment tools. Also, as the literature could not identify the knowledge related to research objectives, the combination of exploratory interviewing and grounded theory was considered as an appropriate strategy for this research. This empirical study scrutinised HRM conditions in the Iranian manufacturing sector by conducting 28 semi-structured face-to-face interviews and observations of HR departments and HR people.

The empirical study of this research which could identify the lack of HRM knowledge in Iran's manufacturing sector has created a clear and scientific perspective for both the educational and manufacturing sectors in Iran. In this way, the research explored how the use of what is commonly accepted to be scientific practice can facilitate the employment working process and how the adaptation and cooperation of academic knowledge with industry will produce up-to-date and practical knowledge for job seekers. The primary data collected from participants identified the points of view of the Iranian HR managers, both those who applied and those who intended to apply personality assessment tools to achieve personality job fit in the recruitment process.

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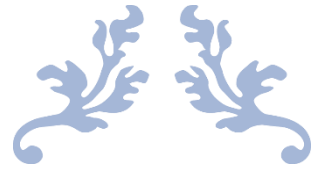
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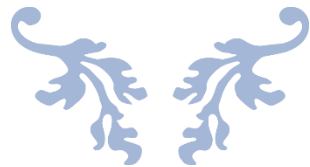
ABBREVIATIONS (Based on Alphabetical Order)

APA	American Psychological Association
BASIS	Behavioural Attribute and Skills Interviewing System
BSc	Bachelor of Science
BA	Bachelor of Arts
CEO	Chief Executive Officer
CAQDAS	Computer-Assisted Qualitative Data Analysis Software
DISC	Dominance, Inducement, Submission, Compliance
EFQM	European Foundation for Quality Management
EMBA	Executive Master of Business Administration
EJS	Employee job satisfaction
HR	Human Resource
HRM	Human Resource Management
HRP	human Resource Planning
IVD	Individualism
I/O	Industrial and Organisational Psychology
IND	Indulgence
ISO	International Organization for Standardisation
KSAOs	Knowledge, Skills, Abilities and Other characteristics
LTO	Long-term Orientation
MBTI	Myer Brigs Type Indicator
MBA	Master of Business Administration
MAS	Masculinity
MSc	Master of Science
PATs	Personality Assessment Tools
PD	Power Distance
RQ	Research Question
SHRM	Strategic Human Resource Management
SHRM	Society for Human Resource Management

SJT	Situational Judgment Test
TQM	Total quality management
UAI	Uncertainty Avoidance Index
USA	United States of America



CHAPTER ONE
INTRODUCTION



1.1 Introduction

This chapter aims to provide a general overview of what this thesis focuses on by introducing the background of the study, research questions, objectives, methodology applied and thesis structure.

This research focuses on Iranian organisations' recruitment systems, specifically the application of personality assessment tools in the manufacturing sector. The evidence to date shows that the concept of personality assessment tools has not been applied or considered in Iranian organisations' recruitment systems, leading to employees leaving their jobs because of incompatibility between their personality and job roles (Memarzade and Mehrnia, 2007; Eje'e. 2010; Faraji et al., 2016).

The sanctions imposed on Iran by the USA because of the development of nuclear energy in Iran since 2006 caused severe difficulties for Iran's economic situation (Katzman, 2010). According to the researchers (Torbat, 2005; Clawson, 2010; Laun, 2015; Bootwala, 2020), these sanctions targeted any currency-exchange network, and all Iranian companies were banned from imports and exports, including exporting oil reserves (Iran has the 4th largest oil reserve) and sanctions prevented it from capitalising on that resource. Also, international banking transactions to Iran and from Iran have been stopped. These sanctions created a recession and paralysed Iran's economy. Iran's manufacturing sector is not allowed to import raw materials and equipment needed or export their products or services. So, at this stage, recruiting highly skilled people is particularly important for Iranian companies to prevent any extra loss because of the high turnover of the workforce who are poor skills match. At the same time, evidence (Namazie and Pahlavnjad, 2016) demonstrates the recruitment process and human resource concepts were always a matter of concern for Iranian organisations and did not support the success of organisations even before the sanctions were imposed. Due to critical situations caused by sanctions and even without them, it is essential to find out the root of problems in Iranian organisations' recruitment systems.

1.2 Introducing Iran

Since this research was conducted in Iran and the information obtained includes the background of Iranian culture and knowledge, here is a summary of the history and culture of Iran.

The below information about Iran in section 1.2 has been gathered from researchers Daniel, (2012); Durant, (1990); Gershevitch, (1985); and Yarshater et al. (1983).

Iran (official name: Islamic Republic of Iran) is a country with one of the world's oldest continuous major civilisations, formerly named Persia. In general, the history of Iran is divided into two parts: the history of Iran before Islam and the history of Iran after Islam. The history of Iran before Islam is divided into three parts: Iran before the Aryans, Aryan migration to Iran and Ancient Persia.

The first signs of Iran's civilisation can be traced back to 10,000 BC when Aryan tribes (Medes, Parths and Persians) from Europe and Central Asia migrated and settled in the land known as Iran. The Medes had a vast territory that included present-day Iran and parts of Turkey. Cyrus the Great, who became the king of Persia by suppressing the rules of the Medes and Parths, founded Achaemenid Empire (550-330 BC). As the first empire in the history of the world, the Achaemenid Empire must have been in power around the end of the eighth century or the first quarter of the seventh century AD, which lasted until Alexander the Great marched his armies through Persia in 330 BC. The Achaemenid Empire was so vast that it was stretched from India to the Nile River in Egypt and the Benghazi region in present-day Libya and from the Danube River in Europe to Central Asia. The critical feature of this kingdom was respect for individual and ethnic freedom, religious acceptance and tolerance, honouring law and order, encouraging indigenous arts and culture, and promoting trade and art (Daniel, 2012; Durant, 1990).

After the death of Alexander, the Great, his general Seleukos began his reign by establishing the Seleucid¹ rule. The roots of the Seleucids were Greek, and for this reason, they brought the Greek language and culture to Iran. After the Seleucids, the Parthians were also a Greek

¹ According to Strootman (2013, p. 1), 'The Seleucid Empire (312–64 BCE) was the largest of the three Macedonian empires that emerged after the death of Alexander the Great. It was created by Seleukos Nikator from his satrapy of Babylonia, incorporating and transforming the infrastructure of the preceding Achaemenid Empire.'

civilisation that began their dynasty. The Arabs invaded Persia from Arabian Peninsula (current Saudi Arabia). They conquered the Sassanids² as the last dynasty of Persia (651 AD), and after the victory of the Muslim Arabs over the Sassanids, the religion of Islam was established in Iran. Islamisation in Iran was a long process since 651 AD when the Muslim Arabs invaded Persia, and the Zoroastrian³ religion declined in Persia. But Islam has been introduced as the official religion of Iran since the Islamic revolution in 1979 until now (Daniel, E.L., 2012).

The dynasties of the post-Islamic period lasted for about twelve centuries. The last kingdom of Iran (Pahlavi) was established in 1924 by Reza Khan. During the Pahlavi period, Iran's oil industry was nationalised under Dr Mohammad Mossadegh's leadership. This issue became the basis for the "independence uprisings" that eventually led to the 1979 Islamic Revolution in Iran.

1.2.1 From Persia to Iran

In 1935, on the first day of the Persian new year, Iran's kingdom (Pahlavi) announced to all foreign delegates that the country's name had been changed from Persia to Iran and would no longer be called Persia, Perseh or Pars. The word Iran means the land of Aryans (Aryan means noble). The term Aryan originated and was used from the time of the Achaemenid Empire (550–330 BC). The word Iran is one of the oldest words that the Aryan race brought to the circle of civilisation (Abrahamian, 2018).

According to Fisher et al. (1968) and Amanat (2017), Iran has an area of 1,648,195 square kilometres in southwestern Asia and with a population of about 83 million is the second-largest country in the Middle East. Iran is bordered by the Caspian Sea to the north, Armenia and the Republic of Azerbaijan to the northwest, Afghanistan and Pakistan to the east, Turkmenistan to the northeast, the Persian Gulf and the Sea of Oman to the south, and Iraq and Turkey to the west. Iran has a strategic position in the Persian Gulf region as the Strait of Hormuz in southern Iran is a vital route for crude oil transportation. Tehran is the capital and

² According to Pollack (2004, p. 9), 'The Sassanids ruled Iran until they in turn were overthrown by a new power rising in the south, Islam.'

³ According to Nigosian (1993), Zoroaster was a prophet of an ancient Iran (Persia) who lived in the seventh to sixth century BCE. Zoroastrianism is the world's oldest revealed religion and Zoroastrians believe in one God, called Ahura Mazda (meaning 'Wise Lord'). The phrase "Good Thoughts, Good Words, Good Deeds" represent the three pillars of the Zoroastrian Faith and sums up the beliefs and conduct of its followers.

the most populous city in the country. Iran is a country with different ethnicities and cultures, and the predominant ethnic and cultural group of this country are Persian speakers (Amanat, 2017). The constitution of the Islamic Republic of Iran declares Shiite Islam as the official religion of Iran, and the majority (99.44 %) of the people of this country are followers of this religion (Abrahamian, 2018; Osiewicz, 2020). The official language of this country is Persian⁴. Iran has extensive reserves of fossil fuels, including the world's second-largest natural gas supply and the fourth-largest oil reserves (Abrahamian, 2018).

1.3 Research Background

1.3.1 The Emergence of the Personality Assessment Tools in Occupational Setting

According to Lanyon and Goodstein (1997), personality assessments refer to the methods and tools for gathering and organising information about another person expecting that this information will lead to a better understanding of that person. Also, Cohen et al. (2013) define personality assessment as a psychological evaluation tool, which, through the holistic evaluation of an individual, aids decision-making and allows assessors to conclude a person's future behaviour.

The psychological topic in an occupational setting that considers the employees' personalities were questioned by Robert Guion and Richard Gottier for the first time in 1966. In the late 1980s, a series of highly influential research outputs on the Five-Factor model were published to emphasize that specific personality traits predict the employee's performance (Gatewood, Field and Barrick, 2016). Although personality tests have been around for a long time, 'their use dramatically increased after 1988, when the USA federal law banned the use of polygraphs by employers.' (Stabilet, 2002, p. 281)

To increase the research on psychology at work, organisations⁵ in Europe and the United States began to focus more on personnel's psychological profiles in recruitment and

⁴ According to Shabani-Jadidi and Sedighi (2018), 'among the Iranian languages, that are conventionally divided into the three stages of Old, Middle, and New Iranian, Persian occupies a special position in that it is the only one to be substantially documented in all three periods as Old, Middle, and New Persian.'

⁵ The Society for Industrial and Organisational Psychology (SIOP), The European Association for Work and Organisational Psychology (EAWOP), The American Psychological Association (APA) and The Association for Psychological Science (APS)

employee training. For example, Industrial and Organisational Psychology (I/O) was founded in the mid-1880s as the branch of psychology and as a scientist-practitioner model to follow two objectives: (1) to understand and increase the knowledge of human work behaviour (scientists), (2) to improve personnel's work behaviour and work environment (practitioners). So, I/O psychology, by focusing on employees' attitudes and behaviours, increase workplace productivity as a long-term benefit for the employers (Riggio, 2017).

An examination of the literature shows that psychological personality assessment tools have been used in two general ways: (1) to help psychologists diagnose mental health issues and behavioural disorders, and (2) to help employers in the recruitment process choose candidates whose behaviour is compatible with the requirements of particular positions, in addition to assisting employees in improving the efficiency of their performance and ensuring constructive communications with colleagues (Stabilet, 2002). Nevertheless, it should be noted that 'the term "psychological testing" covers a broad range of tests, including tests of cognitive ability and personality tests' (Stabilet, 2002, p. 279).

1.3.2 Is it important to apply Personality Assessment Tools (PATs) in recruitment?

Regarding the focus of this study, in occupational settings, the research addresses personality assessment tools and not the broader range of psychological testing. According to Morgeson et al. (2007), personality assessment tools are useful in determining what type of personality may be the most appropriate for an advertised position, thus allowing personnel managers to select new staff based on whose personalities match the particular job requirements.

Applying personality assessment tools in the recruitment process depends on the job requirements, can be for internal or external selection. If one were selected as a manager, an administrative assistant or a manual worker, the assessment methods might be the same, but the criteria applied are different. According to Pulakos (2005), to understand what the job requires and what the candidates require for the job, there are two different types of formal assessments: 1. Job oriented (list of tasks a job needs to be done) 2. KSAs oriented (what Knowledge, Skills and Abilities (KSAs) a candidate needs to perform the job). The method for assessing personality is a subset of KSA-Based assessments.

According to Parkinson (2008), personality tests are sometimes called personality indicators to measure candidates' personal qualities (characteristics, personality, values, motivation,

and beliefs). Achieving high or low scores on personality tests does not show if a candidate is qualified or not. Still, it shows what the job requires and if the candidate's personal qualities match the job specification.

Correspondingly, a review of the personality assessment tools discussed in the recruitment literature reveals that the managers, by using personality tests, find out unconscious aspects of candidates which are not readily observable in face-to-face interviews. In this way, according to Cavico et al. (2015), the tests can reduce the personal judgments of recruiters in choosing suitable candidates. Personality tests are assessment tools to help employers in accurate and fair decision making, and they are mainly used with CVs (Curriculum Vitae) and job interviews. Also, the tests are better performance predictors of candidates to predict their actual behaviour in specific job roles, especially in an organisation's crisis (Cavico et al., 2015).

Some of the most well-known personality tests that can be applied in the human resources selection process are listed below in table 1.1 in alphabetical order. The HR departments are responsible for implementing the tests at the recruitment stage, and the results need to be analysed by occupational psychologists. These tools can be readily adapted to a particular organisational context. Although, there are many more personality assessment tools available globally, the below tests have been chosen based on the citation availability for the researcher.

Table 1.1: Some of the most well-known personality tests applied in the human resources selection process

Test	Developed by	Description
Activity Vector Analysis (AVA)	Walter V. Clarke, 1948	A behavioural assessment tool and measuring job-related behaviour (PDA, 2014)
Big Five personality traits	Sir Francis Galton, 1884	Human personality describes five factors: Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism (Raja, 2004)
Birkman Method	Roger Winfred Birkman, 2013	It is an online personality test to show individuals' occupational preferences by understanding people's strengths and needs and giving them an insight into, they need to live up to their highest potential (Berkman and Capparell, 2013)
Cross-Cultural Adaptability Inventory	Kelley & Meyers, 1995	It measures four sub-dimensions of adaptability: emotional resilience, flexibility, perceptual acuity and personal autonomy (Nguyen, 2010)

California Psychological Inventory	Harrison G. Gough, 1956	It is a self-report inventory that includes 434 true-false questions to measure personality and behaviour (Mamat, 2009)
DISC assessment	William Moulton Marston, 1972	It is a behaviour assessment tool and refers to dominance, inducement, submission, and compliance of individuals (Hedge, 2012)
Eysenck Personality Questionnaire (EPQ)	Hans Jürgen Eysenck and Sybil B. G. Eysenck, 1975	It is a questionnaire to assess personality traits based on physiology and genetics (Premuzic and Fumhum, 2014)
HEXACO model of personality structure Personality Inventory	Ashton and Lee, 2000	This model assesses the six major dimensions of personality: Honesty-Humility, Emotionality, Extraversion, Agreeableness (versus Anger), Conscientiousness, and Openness to experience (Ashton, 2017)
Holland Codes (RIASEC) (Personality-occupation matching)	John L. Holland, 1990	The model refers to the Realistic, Investigative, Artistic, Social, Enterprising and Conventional aspects of individuals. It helps them how to find out an occupation based on their interest (Andersen and Vandehey, 2011)
Myers-Briggs Type Indicator (MBTI)	Isabel Briggs Myers, 1917	It is an introspective self-report questionnaire to show individual's differences and how they make decisions by the perception of the word (Quenk, 2009)
Newcastle Personality Assessor (NPA)	Daniel Nettle	It is a test of character that assess the big five personality dimensions and shows how the personality is structured (Nettle, 2007)
NEO PI-R (Neo personality inventory, revised)	Paul Costa and Robert McCrae, 1985	It examines a person's Big Five personality traits as well as the six traits that define each domain (Raja, 2004)
PA preference inventory (PAPI)	Max Kostick, 1960	It analyses ten role scales and needs scales. The test asks how much you agree or disagree with a particular statement (Jones, 2011)
Personality assessment inventory (PAI)	Leslie Morey, 1991	It is a self-report of 344 item personality test that assesses psychopathological syndromes of individuals (Morey, 2003)
Sixteen Personality Factor Questionnaire or 16PF Questionnaire (16PF)	Raymond B. Cattell, 1943	It analyses the personality in 16 main factors (Raja, 2004)

According to Mercer (2012), the consequences of wrong recruitment because of not using personality assessment tools include 1) Hiring unsuitable candidates causes economic losses for organisations as replacing employees is costly, 'the average cost of replacing a bad hire is 1.5 times the worker's salary and benefits, meaning that it could cost \$45,000 to replace

someone making \$30,000 in salary and benefits.’ Or one California strategic HR partnership calculated the cost of wrong hiring is ten times an employee’s annual salary. Even in large enterprises, wrong hiring at the CEO level can cost hundreds of millions of dollars. 2) Although one way to find out how a person worked in the previous job is by relying on the references of prior employers, it is not reliable enough without using personality tests as some prior employers reveal neutral information to prevent lawsuits. So, the applicant's job history from past employers may be invalid and unreliable. 3) Employers, by not using personality tests in the recruitment process, cannot choose a person with the right and relevant characteristics for the advertised job performance (Mercer, 2012).

Besides all the literature about the risks of not using personality assessment tools, there are studies showing the impact and effectiveness of using them: 1) financial benefits, 2) more satisfied and motivated employees, and 3) the career’s compatibility with the individual’s personality. To achieve these aims, according to Mercer (2012), Human Resource Management (HRM) needs to become more strategic in the recruitment process and measure the impact of personality assessment tools for organisational success.

1.4 Research Problem, The Value, and Importance of The Research

In comparison to studies about recruitment and HRM globally, there are very few studies (30) focusing on Iran’s HRM and Iran’s recruitment system. The available research indicates that despite having motivational systems in place, there are some serious issues, including low job satisfaction among employees, poor suitability for roles and staff retention being lower than the sector average. According to Farndale et al. (2017), to identify what is causing the observed issues, focusing on cultural factors across countries can be helpful. Hence, this research by undertaking primary data sampling has uncovered real cultural issues in the Iranian HRM and recruitment system.

Nilipour et al. (2017) argue that the evolution of HRM in Iran proceeds slowly, and Iranian organisations are reluctant to make a change in HRM strategies and design sustainable goals in HR policies to achieve organisational improvement and positive employee outcomes. However, the article has not speculated on why, yet this is important.

Based on a study of the available articles, the problems which studies agree on relating to human resources in Iranian organisations are divided into two categories: 1) The problems

during the recruitment process and 2) the problems after the employment contract (Namazie & Frame, 2007; Bidmeshgipour, 2009; Soltani, 2010; Ravari et al., 2012; Jalalkamali et al., 2016; McKenna, 2016; Namazie & Pahlavnjad, 2016; Fesharaki & Sehat, 2018).

The problems related to the first category include HR managers' inability to predict candidates' future performance and recruiters' lack of knowledge in using personality assessment tools to choose the right person. The problems related to the second category include lack of employee motivation, weak job performance, low levels of employee engagement, low productivity, high demand for job displacement and low occupational commitment. However, the research to date has focused solely on identifying the problems in Iranian HR regarding recruitment practices and not highlighting potential solutions.

The matter that has been ignored in previous studies has a direct link between the two above mentioned categories (the problems during the recruitment process and the problems after the employment contract). The studies which are discussed in the literature review chapter show a lack of knowledge in Iranian organisations' HR strategies during the recruitment process that causes the problems in category two (after the employment contract). Researchers have suggested a few solutions to change organisational policies to overcome mentioned problems and encourage people at organisations for the best possible job performance. The solutions include applying motivational methods (Tabassi and Bakar, 2008), increasing training courses (Tabassi and Bakar, 2008; Khalili et al., 2012; Shiri et al., 2013), understanding employee values regard to Iran's culture and religion (Jalalkamali et al., 2016), increasing salaries and benefits (Namazie and Frame, 2007; Shiri et al., 2013), performance appraisals (Namazie and Frame, 2007) and presenting sustainable HRM model based on balanced scorecard⁶ (Nilipour et al., 2017).

Although the personality assessment tools might be carried out in some Iranian organisations at their recruitment stage, there is no evidence of articles relating to investigating the impact of their use.

Despite an extensive emphasis on the critical role of applying personality assessment tools in recruitment, and also a plethora of studies in the literature review chapter showing

⁶ 'BSC (Balance Score Card) is a strategic performance measurement system. The BSC measures an organisation's performance from five key perspectives: financial, customer, internal business, learning and growth and mission and vision.' (Suprpto, Wahab and Wibowo, 2009)

personality tests and behavioural interviews are predominant methods in recruitment, there is no evidence of research work on the impact of using personality assessment tools in Iran's recruitment process. The literature shows that Iranian companies are reluctant to run personality assessment tools and tend more to use functional criteria (e.g., university degree, work experience, knowledge) in staffing (Namazi and Pahlavnejad, 2016). The reason for the reluctance will be investigated in the data collection and data analysis chapters.

So, as the psychological aspects and personalities are not easy to observe or assess by human resource managers and employers, the question is, how do Iranian organisations identify valuable and required characteristics of candidates in recruitment? How do the interviewers probe in-depth about applicants' required personalities for the job vacancies? What reliable and valid method do they use to identify if candidates are person-job fit and person-organisation fit? The literature (discussed in the next chapter), with only a few studies focusing on the critical role of a person's personality adaptability with job specifications, has been done in Iranian organisations. However, they are not sufficient and practical. To cover such a gap in Iran's HRM system, it is needed to research to find out the impact of using personality assessment tools in Iran's recruitment system.

The potential impact of this research will be beyond academia. This research is likely to benefit Iranian organisations, specifically the manufacturing sector. The knowledge granted by this research contributes to benefits and influences the Iranian recruitment system. As the competition in globalisation⁷ is intense and rapid worldwide (Jamal and Saif, 2011), Iran's economy must keep up with the economic changes to expand its business significantly. Investigating the impact of applying personality assessment tools at the recruitment stage helps Iranian organisations set employment criteria, policies and practices that are not subjective and take on a scientific approach. Then the risk of selecting people who do not meet the job criteria is reduced, and people who are not only scientifically but also personality compatible with the job are hired. This increases productivity at work because people have an inner interest and motivation for their job. By considering workforce optimisation as one

⁷ According to Yalcin (2018, p. 1), 'globalization can be defined as an extensive network of economic, cultural, social and political interconnections and processes which goes beyond national boundaries.'

of the five dimensions of the human capital management system⁸, the power of the Iranian manufacturing sector future relies on effective recruitment, which is the right hiring decision. It is clear that human capital, as one of the key competitive advantages, impacts an organisation's performance and economic growth (Wilson and Briscoe, 2004).

1.4.1 The Research Originality

To understand the usefulness and value of this research, two aspects of theoretical and empirical contribution have been investigated. According to Nicholson et al. (2018, p.2), a theoretical contribution is 'an assessment of interestingness, utility, originality, value and being something, which adds, embellishes or creates something beyond what is already known.' Considering the theoretical contribution, this research adds new knowledge to the field of HRM, specifically Iranian organisations and this research, by delineating cultural contradictions in the implementation of management tools (personality assessment tools), shows whether non-native (Western) models can be successfully implemented in indigenous cultures (Iranian culture). According to Farndale et al. (2017, p. 6), 'the outcomes of HRM practices are dependent on the context in which they are implemented, i.e., there is no single formula for best practice HRM.' So, this research by arguing more need of context studies in Iran's HRM add value into the HR studies.

With the progressive development of personality assessment knowledge in academia, specifically in an occupational setting, attention could be devoted from academia to industry. The growth processes of various personality assessment tools, in theory, have been discussed in the literature by scholars; however, a lack of comprehensive review of all studies on this topic concerning the identification of the impact of PATs on Iranian organisations determines the theoretical contribution of this research in HRM field. Exploring the success of implementing personality assessment tools as Western management tools in non-Western cultures develops a new concept for the HRM field, specifically in an occupational setting.

Regarding the originality of this research as an empirical contribution, new findings based on one-on-one interviews reveal unknown insights into recruitment criteria and HRM practices in Iranian organisations. The relationship between applying personality assessment tools at

⁸ The human capital management is comprising of the five dimensions (Leadership practices, Knowledge accessibility, Learning capacity, Workforce optimization, Employee engagement) define by Bassi and McMurrer (2007).

the recruitment stage and person-job fit in Iran's HRM context has not been supported by the previous empirical studies; therefore, the empirical contribution of this study gains more knowledge and get precise, meaningful data on how HRM and recruitment occur in Iranian organisations. The methodology which has been chosen with rigour and precision has been discussed in chapter three.

1.5 Aims, Objectives and Research Questions

The importance and necessity of using personality assessment tools in recruitment have been defined in the previous section. Therefore, if Iranian organisations want to keep pace with changing conditions in the business environment, it is of vital importance to update their organisations' HR processes, policies, and practices to take advantage of future opportunities. Also, Iran's HRM system might need to consider personality assessment tools in staffing (hiring people) to achieve strategic objectives.

Spencer (2004), as cited by Ofori (2011, p. 4), claimed that 'recruiting and selecting wrong candidates can have extensive negative cost implications, while effective processes can contribute to a reduction in turnover and therefore increase in productivity.' Nowadays, successful organisations try to add significant value to their recruitment process by using personality assessment tools to aid accurate decisions and select motivated candidates whose personalities are matched with their job roles (Ofori & Aryeetey, 2011).

Research Aim: To explore the impact of using personality assessment tools on Iranian manufacturing companies in their recruitment process to achieve the personality-job fit.

The following research objectives would facilitate the achievement of this aim:

Objective 1: To determine how much Iranian HR managers and recruiters are familiar with applying PATs at recruitment.

Objective 1.1: To investigate Iranian HR managers' perceptions of the effectiveness of applying PATs in the recruitment process.

Objective 1.2: To determine the process of assessing personality job fit in the recruitment process of Iranian manufacturing organisations.

Objective 2: To assess the pros and cons of applying PATs in the recruitment process of Iranian manufacturing organisations.

Objective 3: To determine if applying PATs at the recruitment stage has a vital role in selecting the right people for the job in Iran.

Objective 3.1: To explore the impact of Iranian cultural issues on the application of PATs at the recruitment stage.

The literature shows a lack of using PATs in Iran's recruitment process. This research seeks to address the following questions derived from the literature (see Chapter Two):

Research question related to Objective 1:

RQ1: How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?

RQ1.1: How do HR managers evaluate criteria related to personality job fit in the recruitment process of Iranian manufacturing organisations?

Research question related to Objective 2:

RQ2: What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

Research question related to Objective 3:

RQ3: Is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?

RQ3.1: How does Iran's culture impact the application of personality assessment tools in the recruitment process?

1.6 The Research Process

To identify the problem or develop the research questions and fulfil the aims and objectives of the research, a multi-concept approach was adopted to provide an advanced fundamental understanding and a holistic evaluation of HR strategies in Iran. According to Clark and Wright (2009, p. 7), 'multi-concept research may be a more fruitful means to generate significant insights than seeking to find gaps in existing theories.' So, the existing literature in the areas of organisational strategic management, business cultural and political environment,

occupational psychology, and human resource management were reviewed to see how the existing HR perspectives and strategies in Iran provide the current insights for HRM and impact on the people's management principles and practices (see figure 1.1).

Figure 1.1: Multi-concept approach of this research



Moreover, an inductive approach through semi-structured interviews was adopted to generate meanings from the collected data, identify patterns and establish clear links and correlations between the research objectives and findings derived from the data collection to build a new theory. So, to achieve the research objectives, the inductive approach was used to analyse the qualitative data.

The appropriate research strategy, which will be discussed in the research methodology chapter for the inductive approach, was through an exploratory qualitative research method to explain the causality of the variables and the relationships between them. The primary data collection method was through face-to-face semi-structured interviews technique with 28 HR managers, CEOs, and expert HR consultants in Iranian organisations' manufacturing sector. Also, the internal documents, data and annual reports provided by some of the interviewees enriched the data sources. Once the data were collected, the research followed grounded theory analysis to provide an explanation and focus on generating and discovering the

research questions' answers from the data. Also, as the data sets as non-numerical and unstructured, the NVivo software package was applied for organising, classifying, and coding of collected information.

This research process involved the following main phases:

1. Selecting the research area
2. Formulating the research aim, objectives, and research questions
3. Conducting the literature review
4. Selecting the philosophical decisions, research methodology and methods of data collection
5. Collecting the primary data
6. Data findings
7. Data discussion
8. Reaching conclusions and recommendations

1.7 Scope of The Research

The general purpose of conducting this research is to determine the impact of applying PATs at the recruitment stage to achieve a personality-job fit in the Iranian manufacturing sector. Although many factors impact the person-job fit in an organisation, the focus of this study is on humans' psychological aspects and personalities and other elements. For example, hard elements including knowledge, technical abilities, employment history, education, qualifications, and skills are not included within the scope of this research. The literature gap shows the hard elements in Iranian manufacturing sectors have been considered and applied in their recruitment process; however, PATs are an unknown and unfamiliar area in Iranian organisations' HR strategies. Based on the literature studies, there is a need to apply more scientific methods and personality assessment tools linked to specific job requirements to consider it as the appropriate HR strategy. So, PATs in this research are considered as a holistic evaluation of an individual to conclude the future behaviour of a person.

1.8 Structure of The Thesis

This thesis consists of six chapters. Figure 1.2 (page 18) shows the structure of the chapters in this research.

Chapter One outlines an overview of the background of the study, research questions, objectives, methodology applied and thesis structure. Chapter Two provides a critical review of the available scholarly papers and books which contribute to this research topic. Chapter Three explains the research philosophy, approach and methodology the researcher applied to solve the research problem. Chapter Four presents the collected primary data through the qualitative data analysis method. Chapter Five declares new knowledge derived from data analysis and discusses the effects of the research finding as well as predicts and suggests future research work. Chapter Six provides the summary of findings relate to the research questions, outlines the original contribution to knowledge found in this research, outlines theoretical and empirical contribution to knowledge and recommendations for further research.

1.9 Summary of The Chapter

The main objective of this chapter was to introduce the research background, research objectives that facilitate the achievement of aims, identify the literature gaps, research problems related to human resources in Iranian manufacturing organisations, and the questions that need to be addressed. It has also stressed the importance of exploring the impact of applying PATs at the recruitment stage to achieve personality-job fit to keep pace with changing conditions in the business environment. It is of vital importance to Iranian organisations to update their HR processes, policies, and practices to take advantage of future opportunities. Also, the research process and scope have been clarified, and the contents of each thesis chapter have been explained briefly to help readers have a better understanding and general overview of this thesis process.

The next chapter (literature review) will discuss, highlight, and outline the relevant studies regarding the research questions.

Figure 1.2: Thesis Structure

Chapter 1: Introduction and overview of the study

(Outlines the research background, research problem, aims and objectives, research process and scope)

Chapter 2: Literature Review

- Recruitment,
- Selecting the right person,
- Personality,
- Personality Assessment Tools (PATs),
- Exploring the concept of HRM in Iran

Chapter 3: Research Methodology

- Research philosophies and approaches,
- Formulates the data collection method through semi-structured interviews,
- The suitable sampling technique,
- The Interviews protocol and design,
- Rationale for the selection of participating organisations,
- Rationale for the selection of interviewees

Empirical Chapters (Chapters 4 and 5)

Chapter 4: Data Analysis

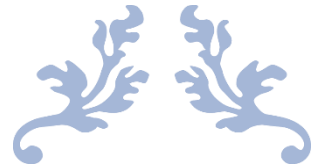
- Presents the data findings relevant to the three research questions,
- Coding the findings by NVivo,
- Explains the themes in detail

Chapter 5: Data Discussion

- Critically re-examining of the literature review and synthesising with the founded data,
- How and why the findings fit with the concept of personality assessment tools,
- The implication of modern HR management tools in Iranian organisations

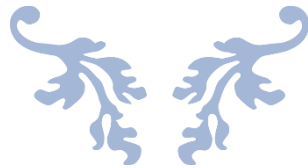
Chapter 6: Conclusion and Recommendations

- Provides the summary of findings relate to the research questions,
- Outlines the original contribution to knowledge found in this research,
- Outlines theoretical and empirical contribution to knowledge,
- Recommendations for further research



CHAPTER TWO

A REVIEW OF LITERATURE



2.1 Introduction

This chapter reviews the literature associated with the impact of applying personality assessment tools (PATs) at the recruitment stage, which incorporates a broad range of literature including PATs in an occupational setting, HR managers' capabilities in recruiting to achieve the personality-job fit, employees' work efficiency due to pick the right person as the results of applying PATs, Iranian organisational HRM strategies, Iranian recruitment systems and principles.

2.1.1 Literature Search Strategy, Selection Criteria, Inclusion and Exclusion

Overview of the literature shows (research up to May 2021) that there is a dearth of literature regarding the research topic in the Iranian context. So, to achieve the research aims, objectives and answer the research questions, which are outlined in Chapter One, a narrative literature review approach was adopted to understand contemporary knowledge, undertake an in-depth and critical assessment, describe and appraise the most relevant and influential literature on the topic in the area of organisations' HRM strategies and practices which cover the aspects of HR and recruitment perspectives to select the right person. By adopting this type of literature review a clear background of knowledge will be provided by overviewing the published ideas and theories related to the research objectives and assessing the current state of knowledge.

Systematic or meta-analysis literature review has not been chosen as a lack of studies related to this research topic needed a comprehensive examination of personality assessment tools genesis from early ages, therefore, to look for literature in a specific period is not applicable for this research. An argumentative literature review has not been chosen as this research does not defend or refute an argument and looks for the impact of applying personality assessment tools at the recruitment stage.

As part of this study, seminal and contemporary studies of personality theories and occupational psychology will be reviewed to:

- ✓ Develop an understanding of the extent to which the scrutiny of human personality differences is important to find out,
- ✓ Identify the human personality factors that impact on work efficiency,

- ✓ Explore the extent to which HR policies and practices in personnel selection⁹ can contribute to achieving organisational goals.

Due to inadequate and limited published journal articles and books regarding the research subject, the literature review has not only focused on them but also included doctorate dissertations, published conferences reports and Iranian organisations' research studies to optimise the chance of gaining a full appraisal of the existing knowledge of the topic and establish gaps.

The review started in July 2017, firstly exploring the concept of personality literature, searching for all critical human psychological aspects in the writings published since the 9th or 8th century BC until the present, containing the keywords personality differences, characteristics, person-job fit, personality assessment tools, psychometric test, recruitment strategies, HR strategy, selection process (traditional and present), workforce adaptability in their titles, abstracts or keywords in two categories of general studies and specific to Iran. This resulted in a large number of articles in general, however, regarding the studies about Iran's HRM strategy in the selection process this was very limited. See table 2.1 for inclusion and exclusion criteria.

Table 2.1: Literature review inclusion and exclusion criteria

Discipline	Inclusion	Exclusion
Iran HRM Strategies	All the available Iranian and non-Iranian publications about Iran's HRM strategies regardless of time frame, recruitment and selection.	HRM strategies related to non-Iranian organisations.
Occupational Psychology	Published books and journal articles related to: The history of occupation psychology, the origin and history of the personality assessment methods, and the use of personality assessment tools at the recruitment stage.	Studies focus on other subjects of occupational psychology rather than personality assessment tools and post-recruitment issues.

⁹ According to Nikolaou and Foti (2018, p. 460), 'Personnel selection forms the basis for a number of other important Human Resource Management functions, such as employee appraisal, training, development, and succession planning.'

Culture	Iranian culture vs Western culture	Culture studies that do not relate to recruitment and organisational behaviour.
Politics	Iran's political situation and issues that influence organisations specifically in HRM strategies.	Studies related to the political conditions of non-Iranian countries.
History	Studies related to the impact of Iranian history on Iranian culture, studies related to the impact of historical changes in Iran on organisational culture.	History of Iran before Iran's Islamic revolution (1979).
Religion	Studies related to the impact of the Islamic revolution on organisational culture and Islamic criteria on candidates' shortlisting at the recruitment stage.	Studies related to non-Islamic criteria and impact on Iranian organisational behaviour.

The majority of the articles about Iran's HRM strategies are categorised into two groups:

1. The studies which present a general overview of HRM systems in Iran based on Iranian HR professionals' viewpoints and which highlight the importance of changes in Iran's HRM system to improve the HR strategies at the recruitment stage and after recruitment.
2. The studies which include data collected from Iranian organisations about different aspects of HRM in Iran. However, there is no evidence of a study to investigate specifically the application of PATs in Iranian organisations' recruitment processes with the aim of personality-job fit.

The first group of studies, which is broader in their scope, address the overall dimensions of HRM policies and practices in Iran. However, they pay less attention to the solutions to overcome the existing problems. Also, most of the studies in group one are based on HR professionals' observations and experiences, rather than research findings. The second group of studies, which are fewer than the first group, focus on post-employment problems and their effects on organisational performance rather than looking for the causes and pre-employment problems which is the main focus of this thesis.

It is noteworthy that this review goes beyond the core literature as some aspects like Iran's cultural, political and religious changes in the last 40 years since the Islamic revolution (1979), caused the changes and evolution in behaviours and lifestyle of people. This affected their mindsets in implementing the strategies in the business environment specifically in the manufacturing sector too.

2.1.2 Structure of the chapter

To classify the findings and to provide a clear basis for an understanding of the existing body of knowledge, this chapter is categorised into 5 sections:

- A. Recruitment,
- B. Selecting the right person,
- C. Personality,
- D. Personality Assessment Tools (PATs),
- E. Exploring the concept of HRM in Iran

Section A explores definitions of recruitment and selection and what they are designed to achieve. Also, effective recruitment and its post-hire effects, wrong recruitment and its post-hire effects and cultural differences in the recruitment process have been discussed.

Section B first explores HR managers' challenges in the selection process to choose the right person. Then look for the reasons why organisations looking for the right person and how to select the right person for the required job.

Section C first explores the importance of studying personality theories in an occupational setting in two eras of early and contemporary studies and how they have been assessed. Then, it explores the importance and necessity of applying personality tests in occupational settings at the recruitment stage and discusses the current literature base on the effectiveness and ineffectiveness of personality tests. Also, this section investigates if PATs at the recruitment stage determine personality-job fit and what the outcomes of personality-job fit for an organisation are.

Section D explores the opponents' and proponents' critical viewpoints on the effectiveness of applying PATs in recruitment. Then, explores HR managers' perspectives if PATs indicate future behaviours and what are the strengths and weaknesses of using PATs in recruitment.

Also, this section explores the psychometric test through Ipsative and Normative measurements at the recruitment stage.

Section E explores the concept of HRM in Iran and why is it important to investigate the recruitment processes and HRM systems of Iran. This section identifies gaps and shortcomings in the Iranian HRM literature.

Section A: Recruitment

2.2 Exploring Definitions of Recruitment, Selection and Their Purpose

Whilst organisations try to set the best strategies and plans for achieving their approach, growing their businesses and maintaining sustainable competitive advantages, the changing conditions in the fast-moving business environment are inevitable (Sherman, 2019). So, to keep pace with the business environment's changes and to survive, it is of vital importance to apply strategic policies, processes, and practices to take advantage of future opportunities (Deimler et al., 2013; Sherman, 2019).

Some researchers (Barney, 1991; Schuler & Rogovsky, 1998; Florea, 2013) discussed the increased complexity of business strategies and activities, traditional sources such as financial capital, business location, advanced production machines and organisational structure are not considered as certain competitive advantages anymore. One of the most important and powerful non-traditional competitive advantages is human resources derived from recruitment and selection. Also, Verburg (1999) confirms that with the trend of increasing today's firms' activities, the value of human resource management has taken precedence over any other consideration and the outcome of recruitment to select employees does not only impact on the pre-hire process but also the post-hire too (Ma and Allen, 2009). So, to select a person with the ability to achieve sustainable competitive success that cannot be readily adapted to other particular organisational contexts and duplicated by others, well-managed professional organisations feel the necessity of implementing a strategic recruitment process and selection method to align with their strategic approach (Pfeffer, 1994). Recruitment is a critical process of each organisation 'aimed at attracting applicants with required qualifications and keeping them interested in the organisation so that they will accept a job offer when it is extended.' (Barber, 1998 cited in Ma and Allen, 2009, p. 336)

To understand why professional businesses, consider recruitment and subsequently selection as an indirect effect of the strategy (Porter, 1985), it is necessary to know and further examine what recruitment and selection achievements are and how that makes their competitive advantages.

Examining various research studies in the recruitment field shows there is a common goal which is to select the right person from among a pool of candidates. To achieve this goal, organisations apply various recruitment methods or modify their recruitment processes and strategies to build up more effective, reliable and valid recruitment and selection to the type of job for which they are hiring to keep their competitive advantage (Branine, 2008; Ma and Allen, 2009; Gerxhani and Koster, 2015). To find out why it is vital for organisations to have a successful recruitment process, the post-hire effects of successful and failed recruitment and selection systems in organisations should be examined.

2.2.1 An effective recruitment and its post-hire effect

Some researchers (Waxin and Barmeyer, 2008; Florea, 2013) believe effective recruitment includes considering the minimum cost with maximum achievements and quality to minimize the risk of choosing the wrong candidate. Regarding the costs of recruitment, researchers (Bonte and Bustos, 2004; Compton, 2009; Cassidy and Kreitner, 2009) classified costs of recruitment into (a) direct and tangible (advertising, fees to recruitment agencies, travel expenses, recruitment and selection tests and medical examination costs, training expenses for new employers, etc.), and (b) indirect and intangible (costs regarding time, preparing the job description, pay to external interviewers, placement announcements, screening applicants, arranging interviews, reference checks, preparation of employment contracts, the cost of low productivity and rework of errors in new employees until they reach their effective level, costs of coaching and supervision). Bacanu (1997) cited in Florea (2013) claims with selecting the right person, lower training and development skills expenses are needed and the right person who is capable of high performance will grow the efficiency of the organisation.

Gamage (2014) and Ekwoaba et al. (2015) agree the basic aim of recruitment is to attract qualified candidates and select the best of them. They believe there is a positive and significant relationship between effective recruitment and the performance of an

organisation as when the best candidates match with the job's specification roles productivity is increased by their performance. As a result, Snell et al. (2010) discuss that managers and those who are responsible for making selection decisions should be aware of organisations' goals and strategic plans to apply related recruitment policies and practices to achieve organisational goals.

2.2.2 Employee Job Satisfaction (EJS) linked to recruitment

Armstrong (2006) and Kumar and Gupta (2014) agree that there is a link between employees' job satisfaction and its impact on their performance. However, according to Nikolaou (2003), although there is a relationship between personality and employee job satisfaction, the result of his study demonstrated that it is not between personality and performance-related variables. Although there are plenty of studies that demonstrate human resource practices' impact on employee job satisfaction (EJS), there is no evidence of studies to directly investigate the specific impact of recruitment on EJS. As recruitment is part of HRM responsibilities (Armstrong, 2006, Kumar and Gupta, 2014), some of the factors influencing employees' satisfaction relate to post-recruitment. The factors such as praise and recognition methods, amount of salary, the level of pay and benefits, job design and the clarity of the job description are documented in employment contracts influence potential employees to choose the organisation rather than other organisations (Parvin and Kabir, 2011; Tizikara and Mugizi, 2017).

2.2.3 Inappropriate recruitment and post-hire effects

Researchers (Ofori and Aryeetey, 2011; Tyagi, 2012; Carter, 2015) demonstrate in their studies that inappropriate recruitment has devastating consequences and huge losses including time and cost for a business and there should be strategies to minimize the chances of wrong decisions to avoid choosing individuals who are not capable through three stages of recruitment, selection and induction strategies. They suggest pre-employment tests such as Emotional Intelligence (EI), personality and aptitude tests. These tests need to be applied as an interview aid in the first stage which is recruitment to predict the candidates' future successful performance. Nikolaou and Tsaousis (2002) demonstrated the relationship between EI and occupational stress as well as its consequences on organisational

commitment (COE and CEO)¹⁰. In their research employees high in EI scored higher in both COE and CEO. Employees with higher EI might feel more valued in their position which increases the feeling of commitment and loyalty (Nikolaou and Tsaousis, 2002). So, considering the EI test at the recruitment stage might be beneficial for organisational goals and needs.

Researchers (Ofori and Aryeetey, 2011; Tyagi, 2012; Carter, 2015) acknowledged that the second stage 'selection' (three stages of recruitment, selection and induction strategies) is where most hiring managers fail as they are not committing the appropriate amount of time to select the right person. Researchers (Gusdorf, 2008; Carter, 2015) suggest by implementing 'a round-robin interview' such as a panel interview from the various areas of the organisation, offering different perspectives of candidates' weaknesses and strengths which can be an effective technique to enhance the chance of choosing the right person. Conversely, Gusdorf (2008) also believes it has the disadvantage of creating a stressful environment for the candidate when having an interview with a team rather than one person. Furthermore, in the third stage 'onboarding strategies' they suggest training is aligned with arranging a mentor to observe and guide the newly hired candidate. Also, an exit interview is a constructive step to correct the mistakes of inappropriate recruitment and enhance retention. Regarding the exit interview, Armstrong (2006) argued that one of the reasons that cause employee turnover is inappropriate selection. By analysing exit interviews, some of the reasons reflect the wrong employment system. For example, requesting more pay and low job security indicate the type of employment contract. He also believes the cost of employee turnover includes leaving costs, recruiting replacement costs, cost of time spent for induction and training and cost of lack of input during the time taken to hire a new employee.

Dash et al. (2018) demonstrate that the costs in recruitment need to be measured and believe costs of recruitment could be determined by costs per activity with considering the time spent for the activity and its sub-processes. So, effective recruitment which influences organisational performance and goal achievement can minimise the costs. Florea (2013) discusses the wrong recruitment and selection costs in his study too. He believes measuring the effectiveness of recruitment and its costs are an HR responsibility and are not expected

¹⁰ Commitment of the Organisations to the Employee and Commitment of the Employee to Organisation.

from the other departments in organisations. To measure the cost of recruitment, the cost from the initial decision to the last step which is retaining the new employee should also be considered. He declares that having various ways of recruitment and attracting thousands of candidates is the start of implementing the wrong recruitment. Researchers (Lakhdar et al., 2001 cited in Price, 2000; Sutter, 2007) agree that poor recruitment costs are not just about economic impact, but also have a negative social, and psychological impact and poor image of the organisation which prevents potential job candidates to apply for jobs in the organisation. Dash et al. (2018) confirm that employee turnover is a result of the wrong choices which have very high costs for companies in terms of time and expenditures. Further, Cania (2014) and Dash et al. (2018) confirm factors like organisational effectiveness, employees' efficiency and productivity are related to human resources costs which indicate the necessity of choosing the right person in recruitment to avoid later additional costs. In addition to costs issues, Price (2000) claims one of the consequences of choosing the wrong candidates is that other employees in organisations might lose their motivation as they see the jobs have not been filled with appropriate people, also if a new employee gets a job at a management level, he/she might block others' creative and innovative ideas because they do not understand and do not have the knowledge in the subject matter because he/she is not selected based on competence.

2.3 Is There a Common Approach to Recruitment Across Cultures?

Stone and Stone-Romero (2012, p. 1) define culture as 'shared behaviour and shared human-made aspects of society.' As globalisation intensifies, specifically regarding this area of research, which is Iran, it is important to consider cultural effects on HRM strategies and practices, human resource planning (HRP) and job analysis¹¹. With the advent of the globalisation of business activities, there are two perspectives among researchers on the possibility of a common approach to recruitment across cultures. According to Farndale et al. (2017), the first perspective is that globalisation is leading to a transfer of standardised HRM practices across cultures and the second perspective on the contrary believes that culture is

¹¹ According to Nikolaou and Foti (2018, p. 460), job analysis refers to 'the detailed analysis of a position which is used to identify its key components and the behaviours necessary for a job incumbent to perform successfully.'

tightly embedded in organisational practice, so it is difficult to consider one common approach or standard HRM system for all the nations.

According to Nikolaou and Foti (2018), job analysis consists of two major procedures which are job description (e.g., procedures, methods, standards of performance), and job specification (e.g., necessary knowledge, skills, qualifications, abilities, and other personal characteristics). Hofstede's (2001) and Triandis's (2003) cultural studies show people have different values in different cultures which lead to different behaviours. Examining articles and studies regarding the cultural differences at the recruitment stage, confirm the effect of national culture dimensions on HR strategies and recruitment phases (Schneider, 1988; Schwartz, 1992; Ferner, 1997; Schuler and Rogovsky, 1998; Segalla et al., 2001; Stone et al., 2007; Ma and Allen, 2009; Meshksar, 2012; Allen and Vardaman, 2017). Also, Stone and Stone-Romero (2012, p. 19) agree that 'some behaviours occur without thought, automatically... behavioural intentions are a function of norms defined by cultures' which leads to individuals' different personalities across cultures. National culture is the stable behaviour, values, beliefs, language and norms of people since their childhood and artefacts which are easy to observe and also underlying assumptions (ways of perceiving and thinking) which need to be inferred and make them different from other groups of people. It is embedded deeply in the way they make their decisions and behave in their everyday life (Schneider, 1988; Newman and Nollen, 1996; Schuler and Rogovsky, 1998; Hofstede et al. 2005).

Regarding the recruitment aspect, Aycan (2005) argues that the purpose of recruitment is different across cultures. Aycan (2005) believes in India and Eastern European countries the purpose of recruitment is to recruit more people to reduce poverty, however, in Western European countries and North America the HR strategic plan has been based on selecting an individual who has the best qualities for the job. Segalla et al. (2001) by studying 25 firms in Western European countries confirm that to win the competitive advantages over Asian and American firms, hiring the right person and high-quality employees is the priority even if the company faces understaffing and shortfall problems.

In some cultural contexts, common selection tools including Knowledge, Skills, Abilities and Other characteristics (KSAOs) and personality inventories are under scrutiny. For example, in a culture where skills of analytical thinking are highly developed since childhood, they do not

consider analytical problem-solving tests in selection as they already know people have this skill (Björkman and Lu, 1999). Tung (1990) and Stone et al. (2007) also agree that recruiters in the USA and Western European countries are more likely to look for criteria including flexibility and adaptability rather than management skills and talents like in Japan.

Aycan (2005) states that values are one of the culture's dimensions and values as part of the culture affect the selection process. According to Tompkins et al. (2010, p. 2) 'universalism and particularism are value standards that may guide the behaviour of persons or whole cultures.' Aycan (2005) shows the design of selection systems is different in universalist¹² vs particularistic¹³ cultures. The importance of considering hard criteria (knowledge and technical skills) in selection in particularistic cultures is more than in universalist cultures. In universalist cultures, soft criteria (social and interpersonal skills and personality job fit) are more important in selection. Stone and Stone-Romero (2012) state that in universalist cultures moral norms and beliefs do not change based on changing of the situation, however, in particularistic cultures, immoral norms may change across a situation (e.g., stealing, lying). Regarding recruitment in universalist cultures, the rules and principles do not change because of a specific person and there is a systematic approach to picking the best person who fits with the position. However, in particularistic cultures, personal relationships, ethnicity or race might be preferred.

Researchers (Rozenweig and Nohria, 1994; Newman and Nollen, 1996; Khilji, 2003; Meshksar, 2012) have corroborated this claim that HRM practices are rooted in cultural principles. However, some other researchers (Martin 1992; Armstrong, 2003; Piepenburg, 2011) believe that organisational culture has been affected by national culture and without understanding the national culture it is not possible to find out organisational culture. Armstrong (2003) admits that although not easy, it is possible to change organisational culture by applying organisational change theories. In addition, researchers (Barber, 1998; Meshksar, 2012) admitted that even the best HRM practices are not transferable in all national cultures and recruitment processes and methods need to take into account cultural differences to be effective. Stone et al. (2007) explain that the values of a national culture influence

¹² According to Tompkins et al. (2010, p. 1), 'In universalism culture general rules and values have a priority over particular needs and claims of friends and relations. Correct behavior can be defined and always applies.'

¹³ According to Tompkins et al. (2010, p. 1), 'In particularist cultures relationships are more important than abstract social codes.'

organisational culture, job design and descriptions. For example, some cultures value the ability to work in a team and some other cultures value individual achievements. For example, Iran is a land of individual achievers and Japan values a teamwork culture (Javidan and Dastmalchian, 2003). However, according to Lane et al. (2009), putting a country in one context of either an individual achiever or a team worker is not appropriate. Lane et al. (2009) in their book state that some factors including individuals' education, socioeconomic status, age and ethnicity in one country make differences in individuals' working behaviours values.

Kandula's (2006) perspective is that the differences in organisational culture are effective in HRM planning and HRM practices. Two organisations in the same industry and the same national culture might perform different HRM strategies as their organisational culture is different. Researchers (Schwartz and Davis, 1981; Schneider, 1988; Jackson and Schuler, 1995; Schein, 2010) consider selection as the major tool to select and fit candidates with corporate culture and propose culture by providing cohesiveness that holds an organisation together. So, the criteria of selection should fit with the cultural aspects of a firm and job candidates' behaviour, values and beliefs will be screened by recruiters to be matched with organisational culture. Triandis (1994) stated that in the selection, cultural dimensions should be considered as the culture influence on interpersonal relationships and not on non-technological factors for example 'the introduction of new products and new processes' (Pereira and Romero, 2012, p. 2).

Critiquing the articles shows there are variations in cultural dimensions and there is a direct link between phases of recruitment and Hofstede's six cultural dimensions. However, Stone and Stone-Romero (2012) stated that in addition to Hofstede's cultural dimensions there are tight and loose cultures too. Tight cultures have many social rules and norms toward behaviours and there is severe punishment for those who deviate from these norms. For instance, the Taliban in Afghanistan. In loose cultures, people are not punished for what the culture expects from them, or the punishment is mild. For example, rural Thailand.

Another model for recognising cultural differences is Trompenaars's model of national culture differences. According to Trompenaars (1996), this model comprises seven dimensions which are 1) Universalism vs. Particularism, 2) Individualism vs. Communitarianism, 3) Neutral vs. Emotional, 4) Specific vs. Diffuse, 5) Achievement vs. Ascription, 6) Sequential vs. Synchronic and 7) Internal vs. External control. The justification for discussing this model is that it

investigates the preferred behaviour of people in a certain culture rather than evaluating values and putting them in a bad and good group (Bhagat and Steers, 2009). Trompenaars's model focuses on people's minds and sights, however, Hofstede believes that values presented in people affect their behaviour. According to this model, an individual's behaviour is defined based on her/his personal choices and is not influenced by the dominant culture in society (Williamson, 2002).

The justification for considering the Hofstede framework is that several studies (Shackleton and Ali, 1990; Schuler and Rogovsky, 1998; Triandis, 2003) suggest that among the many ways to find out cultural dimensions, Hofstede's comparative studies of cultural dimensions are the most straightforward, explicit and comprehensive means to categorise culture differences, portray and dimensionalise values and beliefs of people on their national culture. However, some critics argue that the methodology of the Hofstede model is fundamentally flawed (Williamson, 2002). For example, people may be misjudged because Hofstede's model determines and predicts people's behaviour entirely on their cultural background and 'there is the danger of assuming that all members of a culture homogeneously carry the same cultural attributes, that a culture can be uniform' (Williamson, 2002, p. 19). Also, Hampden-Turner and Trompenaars (1997) argue that Hofstede's work categorises people into A and non-A. For example, if you are indulgent, you cannot be restrained and you are rarely in between. In addition, Bhagat and Steers (2009) argue that Hofstede considers people of the same culture with the same characteristics however, everyone has unique characteristics and is very different from others.

According to Hofstede (2011), Hofstede's six cultural dimensions comprise 1) Power Distance (PD), 2) Uncertainty Avoidance Index (UAI), 3) Individualism/ Collectivism (IVD), 4) Masculinity/ Femininity (MAS), 5) Long-term Orientation (LTO) and 6) Indulgence vs Restraint (IND). To find out the impact of national culture on the recruitment process, the relationship between recruitment and Hofstede's cultural dimension has been studied. The scores for Iran on Hofstede's dimensions are illustrated in Figure 2.1.

According to Straub et al. (2002, P. 1), 'in reviewing the history of the conceptualisation and measurement of culture, there is a wide-ranging and contradictory scholarly opinion about which values, norms and beliefs should be measured to represent the concept of culture.' As a result, both Hofstede's and Trompenaars's models will be discussed in this research in

assisting for a better and more comprehensive understanding of cultural backgrounds, investigating the recognition of cultural differences from different angles and avoiding misunderstanding and bias.

2.3.1 Recruitment and Hofstede's Power Distance (PD) and Trompenaars's Achievement vs. Ascription

These two dimensions from Hofstede and Trompenaar might have a connection and seem similar so far as if an individual's value is determined by social or organisational status, then there is a higher capability of accepting power distance. According to Pirlog (2017, p. 163), 'in cultures with the achievement dimension the status is gained, individuals are treated equally, so that they can be evaluated according to their merit.' However, in ascription cultures, 'people status has been granted to them because of political affiliation or membership in a clan.' According to Piepenburg (2011) and Schuler and Rogovsky (1998), Hofstede's power distance dimension indicates the perception of less powerful people in an organisation when the power is not distributed equally. The people in high PD cultures tend to apply for jobs that give them more autonomy at work, and more decision rights with a prestigious job title. Also, they apply to companies that are more reputable than others and they believe society would respect people who are in a higher position in the organisational hierarchy (Stone et al., 2007). Laroche and Rutherford (2007) also confirm that there is more respect for position and value on titles in high context culture (Edward Hall's cultural dimensions) with high PD. Stone and Stone-Romero (2012) stated that individuals in high PD cultures would prefer to apply for prestigious job titles and jobs which offer them opportunities to rise in the organisational hierarchy and as they mentioned there is more respect for higher levels. Stone et al. (2007) study indicates people in high PD culture prefer to apply for jobs through private job agencies rather than public ones or newspapers. As they expressed that public employment agencies advertise for low-level and low-reputation jobs. Stone et al. (2007) also confirm that in high PD cultures the reputation of the company is important for people to apply for the job and people look to private employment agencies. Aycan (2005) confirmed that in high PD cultures the HRM planning is short-term oriented and might change frequently to the alternative decision makings of senior managers and CEO. However, in low PD cultures, the HRM plans are based on the strategic process of the company and are more stable and long-term

oriented. Regarding the inequities in the selection, people in high PD and collectivist cultures are less likely to express their discomfort about the inequities in selection criteria.

2.3.2 Recruitment and Hofstede Individualism vs. Collectivism (IVD) and Trompenaar's Individualism vs. Communitarianism

These two dimensions of Hofstede and Trompenaars seem similar. According to Stone and Stone-Romero (2012), in individualistic cultures selection criteria are mostly based on individual achievements rather than working in a group and personal opinions are valued. Even people looking for organisations that satisfy their personal goals. Collectivism is a cultural pattern with much traditional shared ideology and norms which are imposed tightly, and people are expected to participate in group activities and self-sacrifice for the sake of cultural values and the collective (Triandis, 2000). According to De Mooij and Hofstede (2010), in Individualist societies, people are in connection with their immediate family and expected to look after themselves. However, in a collectivist culture, people care about not only their immediate family but also their extended families too. As collectivist people from birth tend to be in groups, Stone et al. (2007) in their study confirmed that individuals look for job opportunities that offer teamwork, make a relationship with new people and have more job security. Belias and Koustelios (2014) discussed that in a collectivist culture making a relationship with co-workers increases job satisfaction and happiness in the workplace. However, in individualist cultures, individuals are more self-reliant and look for jobs with more autonomy and freedom to do their activities. They are also keen to get individual job achievements. Regarding applying for a job, as collectivist people are more relation-oriented, Stone et al. (2007) suggest that they tend to look for jobs through employees or friend referrals, networking and job fairs. Also, Stone and Stone-Romero (2012) stated that in collectivist culture people define themselves by their social attributions (I am a son/daughter of ..., I am a member of a well-known family) rather than personal attributions (for example, I am an introvert, I like hiking). Also, recruiters' decision-making is influenced by the referee's opinions and their personal judgment on choosing the right person is influenced by collectivist culture too as they are more relationship oriented. However, individualist people tend to look for a job through e-recruitment methods where the possibility of recommendations is less. Regarding ethnic minorities, the research by Wyse (1972) cited in Rynes and Schwab (1980) indicates that ethnic minorities prefer to apply for a job where recruiters are from the same

background. Moreover, as Triandis's (2018) study shows, individuals might act differently in the same culture. For instance, people from an upper socioeconomic level in a collectivist culture might act like people in an individualistic culture.

Researchers (Martin and Maryn, 1991 cited in Stone et al., 2007; Laroche and Rutherford, 2007) acknowledge that 'familism' is another factor in collectivist culture as in familism people would prefer jobs with work-family balance with more flexibility in personal time off from work so they can spend more time with their family, and they do not sacrifice their family foundation because of their job. Meshksar (2012) in his study mentioned that in the selection process in collectivist countries recommendations by family members or friends have more effect on choosing the candidate rather than a resume and individual experiences. Also, in an individualism culture, financial promotions are more persuasive for job candidates rather than seniority-based promotions. Budhwar and Khatri (2001) in their study expressed that in collectivist and high PD cultures the socio-political connection has a direct effect on selecting the candidate. Meshksar's study (2012) by comparing collectivistic and individualistic countries showed that collectivist cultures have more informal recruitment processes however individualistic cultures prefer to cooperate with recruitment agencies and educational institutions to select candidates. Stone et al. (2007) and Aycan (2005) believe that in collectivist values people tend to look for relationship-oriented and internal¹⁴ recruitment sources and channels like employee referrals.

Also, Lee (1998) suggests cultural context influences both external and internal recruitment. It is challenging for the recruiter to select a person externally when an internal person has been supported as it shows loyalty to the firm. Stone and Stone-Romero (2012) agree that in a collectivist culture, recruitment is not based on human resource practices like selection based on tests and recommendation plays an important role in shortlisting.

Regarding the job design in individualistic cultures, job descriptions are based on personal abilities and skills and in collectivist cultures job descriptions are designed to be done in groups. Job descriptions in individualistic cultures are written based on individual skills and

¹⁴ According to Nikolaou and Foti (2018, p. 460), 'Organisations use employee recruitment and selection practices for internal employees as well (e.g., when an organisation has to make a decision regarding the re-allocation, transfer, or promotion of employees).'

abilities and in collectivist cultures, the jobs are based on the perception of team working (Stone and Stone-Romero, 2012).

2.3.3 Recruitment and Masculinity vs. Femininity (MAS)

According to Stone et al. (2007) study, in low context culture, gender differentiation is minimum and low. In low masculinity culture both men and women should be valued equally, and life challenges, earnings and advancement are for both men and women. In masculinity culture distribution of roles is more reliant on men. In feminine cultures, people are looking for jobs providing them with a high quality of life and also delivering high work quality, so they prefer fewer working hours with a high-performance outcome rather than more working hours to get more salary. In high masculine cultures, people are keen to look for jobs with a higher salary. Also, as in Masculine cultures, there is a larger gender wage gap, and women might face problems negotiating the terms and conditions of payment (Stone et al., 2007). In Masculine cultures, fewer women are at management levels (Hofstede and Minkov, 2005). Meshksar (2012) believes that in low-masculinity cultures the activities and responsibilities of women and men are shared equally. Some researchers (Jaeger, 1986; Schuler and Rogovsky, 1998) agree that in feminine cultures quality of life is an important matter rather than doing activities to acquire more money regardless of quality work-life issues. Authors (Spence and Petrick, 2000; Stone and Stone-Romero, 2012) believe in countries with feminine cultures recruiters are looking for people with positive relationships with others and this leads to applying PATs at the recruitment stage more than the countries with masculine cultures. However, in organisations with masculine culture, the hiring process included a structured interview and fixed questions asked from each job candidate.

2.3.4 Recruitment and Uncertainty Avoidance Index (UAI)

According to Hofstede and Minkov (2005), the cultures with low uncertainty avoidance index are more expressive and anxious, people are more extroverted in showing their aggressions and emotions. Researchers (Stohl, 1993; Spence and Petrick, 2000) demonstrated that low UAI cultures have a less structured recruitment process with bureaucratic interviews. Whereas in the high UAI cultures ambiguity and uncertainty are low, the organisations have strict rules and laws and try to minimise the unstructured working conditions. Regarding Laroche and Rutherford (2007) in low UAI cultures, people tend to accept a job offer with a

lower and more stable income if they feel it has less risk. In contrast in high UAI cultures, people tend to accept jobs with higher income. They are permitted to take risks regarding their activities and use their initiative, however, if the results go wrong, they have low support from their managers. A study by Meshksar (2012) by comparing high and low UAI countries indicate that in high UAI cultures organisations have written documentation of personal/HRM strategies and they follow it. Organisations in low UAI cultures prefer word of mouth from family and friends in internal recruitment (Aycan, 2005). In high UAI cultures the job description has been defined in detail to avoid ambiguities and jobs are more fixed-term and long-term contract based. In contrast in low UAI cultures the job descriptions include more general and broader content and jobs are more liable to supervisory guidance so the job description has not been determined specifically, the supervisor can ask them to do different activities (Straub et al., 2002). According to Nikolaou et al. (2017), the nation valuing uncertainty avoidance tends to use more tests in the recruitment process. As Iran's uncertainty avoidance based on the Hofstede scale is 59, it is supposed that organisations in Iran use more tests for selection to avoid the uncertainty of wrong selection consequences.

2.3.5 Recruitment and Long-term orientation vs. Short-term orientation

Long-term orientation vs. short-term orientation is the fifth dimension of Hofstede's cultural dimensions which does not work in the same way across cultures. The articles which have investigated the cultural impact on recruitment have indicated there are differences between organisations in long-term or short-term oriented cultures. According to Hofstede et al. (2005) and Ma and Allen (2009), for people in long-term oriented cultures, the emphasis is on future achievements and welfare and there are more training opportunities as they believe this is essential to achieve long-term objectives. However, in short-term oriented cultures, the focus is on present and past achievements and benefits. These characteristics are obvious in how people prefer to choose a job. In long-term orientation cultures, people prefer to choose a job with possible growth opportunities. However, in short-term orientation cultures, people are keen to choose a job with better status and pay. Even staffing planning has been affected by the cultures too. According to Lane et al. (2009), staffing planning and HR planning for example in short-term oriented cultures are an extension of the past strategies and in long-term oriented cultures are rational approaches and staffing is based on the long-term strategic plan of organisations and contracts are long-term. However, in short-term oriented

cultures organisation staffing based on present requirements and the contracts are mostly part-time, hourly based and temporary.

2.3.6 Recruitment and Indulgence vs. Restraint (IVR)

Based on the sixth dimension of Hofstede, cultures are described as Indulgent or Restrained (Hofstede et al., 2010). 'Indulgence stands for a society that allows relatively free gratification of basic and natural human desires related to enjoying life and having fun. Restraint stands for a society that controls the gratification of needs and regulates it by means of strict social norms' (Hofstede, 2011, p. 15). Based on Hofstede's research (2020) Iran's score for the indulgence dimension is 40 which indicates Iran has a culture of restraint. According to Hofstede insights' website (2020) research for IVR dimension specifications, Iranians tend towards cynicism and pessimism, and they have the perception that their actions are restrained by Iran's cultural and social norms and feel that indulging themselves is somewhat wrong. Iranians feel that their lives and emotions are dictated by external factors. There is no evidence of a paper to discuss the IVR dimension in the recruitment process. However, regarding the IVR specifications, the Iranian working environment is more rigid and controlled rather than the countries with a high rate of IVR. Iran's regulations are based on Islamic rules and according to Fesharaki and Sehhat's (2017, p. 3) research which discussed the Islamic HRM (IHRM), 'recruitment means hiring people who have the necessary competencies (KSA) ... and there are some Islamic standards for being accepted for a vacancy including merit and ability.' Fesharaki and Sehhat (2018) by providing verses from the Quran about the story of two prophets Shuaib and Moses, discussed that being competent, capable, trustworthy and honest are criteria that need to be considered in Islamic recruitment. As biased recruitment and selection cause the feeling of injustice for job applicants (Pindek et al., 2017), Hashim's research (2008) of eight Islamic institutions indicates that Quran-based (Islamic) HRM processes including recruitment enhance justice and equity among job applicants. For example, recruitment decisions are made by Shura (council) and consultation is one of the Quran's recommendations for making decisions in life. On the other hand, recruitment and selection based on Islamic rules rather than personal preferences will make committed employees in future as they think that their recruitment was based on justice (Ratten et al., 2017).

Two questions arise:

1) If Islamic rules are based on justice and equity, why do Iranians feel that the rules are dictated to them and achieved the indulgence ranking of 40 for Iran Hofstede's research?

2) On which criteria have Islamic regulations for recruiters been defined? Islam has two major branches of Islamic beliefs including Sunni (those who follow the traditions of the Prophet) and Shia (those who follow Imam Ali who was Prophet Mohammed's cousin and Islam's successor after Prophet Mohammed died in the early 7th century). Although both groups believe in Prophet Mohammed and the same Holy Book (Quran), they have significantly different perceptions of Islam's historical, political and social events (Moore, 2015). So, the implications of Islamic rules are based on their leader's perception of Islam which is in contrast with Ratten et al. (2017) research which mentioned that personal preferences are not in adherence to Islamic rules.

According to Latifi (2006), Iran has three cultural aspects including Ancient Iranian Culture (6,000 years of history), Islamic Culture (1,400 years of history) and Western Culture (200 years of history). Iran's dominant culture is Persian (Ancient) which has been embedded in Islamic culture when Iran's constitution laws were settled based on Islamic rules in 1979 with the emergence of the Islamic Republic and by the adoption of a new constitution, Pahlavi's pro-Western policies reversed (Yeganeh and Su, 2008). So, in the public sector (organisations related to Iran's government) and some private companies, Islamic work-related values, behaviours, beliefs and sometimes dress code criteria (mostly for women) should be considered for shortlisting of job candidates (Yeganeh and Su, 2008).

2.3.7 Recruitment and Universalism vs. Particularism

According to Trompenaars (1996), this dimension determines whether, in the culture of a society, relationships play the first role or the laws that govern a society. In particularistic cultures, relationships take precedence over the law, and then laws change according to circumstances. But in universalistic cultures the laws govern the culture of the society, all people are obliged to observe it and the rules are the same everywhere and for everyone. According to Khatri et al. (2016), cronyism is a form of corruption that happens in particularistic cultures and candidates with the best connections are hired not the best

qualifications. Iran externally seems like a universalistic culture, but the relationship connections might happen secretly (Abdul and Al-Zobaidy, 2018).

2.3.8 Recruitment and Neutral vs. Emotional

According to Trompenaars (1996), this dimension determines how people express their emotions that lead to behavioural features rather than superiority in value. People in neutral cultures (Netherlands, Great Britain, Sweden) are reluctant to express their emotions openly while people of an emotional culture (Italy, Spain, Iran) express their happiness or anger more excitedly. This cultural dimension might affect judgments of personality traits at the recruitment stage (Hareli et al., 2009). Also, according to Glodstein (2014), there is a link between job satisfaction and retention in soft skills jobs that require higher levels of emotional functioning. These kinds of jobs require emotional, communication and interpersonal skills which people in emotional cultures might benefit from rather than neutral cultures. Iran is considered as an emotional culture. Even Iran's language (Persian) is considered as a romantic language. For example, the way they express their feelings includes body language (Abdul and Al-Zobaidy, 2018).

2.3.9 Recruitment and Specific vs. Diffuse

According to Trompenaars (1996), this cultural dimension determines how different cultures split their personal life from public and work life and how much they engage their professional life into personal life. For example, in a diffuse culture, a person who is called a doctor (have a PhD or Doctor of Medicine) in his professional life may be called a doctor in the community and even among second-degree family members and a great deal of formality is maintained. So, public and private life are similar. But the same person in specific culture has a different position depending on his/her public role. It can be seen that in a culture where professional life even affects personal life (diffuse), people are more eager for high-ranking organisational jobs. Iranian culture considers as diffuse. In Iran, people are mostly called in society by their labels. For example, if a person is Dr in his/her professional life also called a Dr in the public or at immediate family gatherings (Straub et al., 2002).

2.3.10 Recruitment and Sequential vs. Synchronic

According to Trompenaars (1996), people in sequential cultures (Germany, the U.K, and the U.S) value scheduling and usually work on one project and start the next after the project is completed. The meetings should start and end on time, and the focus of the workforce is on completing one project of high quality by setting clear deadlines. However, people in synchronic cultures (Japan, Iran, Mexico) might work on different projects at the same time and multitasking is one of their obvious behaviours. According to Bouton (2015, p. 2), 'culture fit is a key trait to look for when recruiting. The result of poor culture fit due to turnover can cost an organisation between 50 % to 60 % of the person's annual salary. Before the hiring team starts measuring candidates' culture fit, they need to be able to define and articulate the organisation's culture, values and goals.' For example, people who grew up in a sequential culture and decide to start a job in synchronic culture may face trouble adjusting their abilities to the expectations of synchronic culture. At the recruitment stage in synchronic culture, the criterion for reviewing the working experience is based on the quantity and variety of abilities of a job candidate rather than assessing the ability of an individual on one task (Bouton, 2015).

2.3.11 Recruitment and Internal vs. External control

According to Trompenaars (1996), people in external control culture believe that society, nature and the environment control them and affect their decisions and these people avoid conflict in their organisations. But people in internal control culture believe that they can control changes in their environment and their decision-making policies do not change with changes in the environment and they are mostly open about conflict and disagreement in their organisations. At the recruitment stage considering criteria such as managing conflict quickly and quietly might not be a criterion to choose a candidate in external control culture. But in an internal control culture, it is important if a job candidate has the ability to engage in constructive conflict and manage the situation (Patrik, 2019).

2.3.12 Iran's culture and recruitment conclusion

In this section (2.3) the influence of Iran's national cultural status on employment and recruitment was examined by considering six Hofstede cultural dimensions and the seven dimensions of culture by Trompenaars. Below Hofstede and Trompenaars's cultural dimensions are applied to Iranian culture.

1. Although there are papers which discussed other countries' purposes of recruitment (overcoming poverty or recruiting people with a high level of KSA), the literature review about Iran could not demonstrate the purpose of recruitment in Iran. This research gap will be investigated through the data collection process.
2. Iran is listed as a particularism country in which the personal background and specific circumstances are assessed at the recruitment stage rather than what the recruitment rules say.
3. Social norms and rules in Iran are the keys that unlock societal order. So, Iran is considered a country with a tight culture rather than a loose culture.
4. Iran's PD in Hofstede's dimension is 58. This intermediate score does not show a high level of PD in Iran, but it shows Iran's culture with a hierarchical society.
5. Iran's IVD in Hofstede's dimension is 41. This intermediate score does not show either a low or high level of IVD in Iran, but it shows Iran's culture as a collectivistic society.
6. Iran's MAS in Hofstede's dimension is 43. This intermediate score considers Iran as a relatively feminine society. However, it is not too low and may differ between the different regions of Iran.
7. Iran's UAI in Hofstede's dimension is 59. This score considers Iran as a culture with a high preference for avoiding uncertainty.
8. Iran's long-term orientation in Hofstede's dimension is 14. This is a very low score indicating Iran as a culture that has a strongly normative cultural orientation.
9. Iran's IVR orientation in Hofstede's dimension is 40. This score indicates Iran has a culture of restraint.

Section B: Selecting the right person

2.4 HR Managers' Challenges in the Selection Process to Choose the Right Person

Regarding researchers' study (Barney and Wright, 1998; Holcomb et al., 2009; Wright et al., 2011; Walger et al., 2016), HR managers are known as one of the strategic decision-makers in companies. Their decisions create and sustain competitive advantages for organisations by

aligning their strategic plans and activities with the organisation's objectives and have a direct influence on the organisation's competitiveness.

2.4.1 Why are organisations looking for the right person?

According to Breugh (2013), regardless of the type of organisation, it is generally accepted that an employer's successes are closely tied to the type of individuals it employs.

Studying literature shows there are different perspectives on why organisations are looking for the right people, however, the researchers' perspectives are based on their research questions and data analysis. Azisafaei's study (2016) links the necessity of choosing the right people for organisational agility. She confirms that to have a successful corporate environment we need the right people with the right skills for the right projects. Louw's (2013) opinion is on the employees rather than the organisational perspective and expressed if a person is a poor fit with the job and is recruited in the wrong place it develops stress during employee's work. Several scholars (Schuler and MacMillan, 1984; Pfeffer and Villeneuve, 1994; Jassim and Jaber, 1998; Mirsepasi, 1999; Breugh, 2008; Yu, 2014) have demonstrated regardless of the type of organisation, hiring the right person and the right talent can contribute to an employer's successes, build a sustainable competitive advantage in a competitive market and is a key concern for organisations. Ma and Allen (2009) by having an international perspective on the organisation's recruitment believe as globalisation intensifies if the companies want to keep their competitive advantages it is not possible without the right people. Ashraf (2017) suggests it is more about the outcome of the organisation, he believes the organisation's productivity is an important issue that depends on employees as they are the greatest asset. So, selecting the right person should be one of the main concerns of organisations' strategic plans.

2.4.2 How to select the right person for the required job?

Articles in management and business studies show organisations try to develop proper strategies regarding the recruitment process to choose the right people to match with organisational goals and needs. In most reviews of recruitment research, the criteria for selecting the right person have been specified in two categories: 1) functional and 2) psychological.

These two criteria are considered from the initial steps of the recruitment to the last steps including identifying hiring needs, job advertisements as the process of attracting prospective employees, examining and screening CVs, shortlisting, interviews and then selecting a suitable candidate (Dale, 2003; Smart and Street, 2008; Yeung, 2008; Brown and Swain, 2012; Nikolaou and Oostrom, 2015).

Concerning the specific research questions of this study, the main focus within the literature is the psychological criteria to select the right person. The psychological criteria refer to the elements which are not observable and measurable easily in a face-to-face interview (Valeriu, 2021). It is about observing and evaluating if and how a person's personality fits a particular job role. Psychological aspects and personalities are not easy to observe or assess by human resource managers and employers. According to Taylor (2005, p. 210), 'traditional and typical selection interviews are poor predictors of future job performance as they are inevitably infused with subjectivity, prejudice and displays of cognitive dissonance.' Therefore, in the recruitment process, more scientific methods and personality assessment tools linked to specific job requirements are needed. To understand the suitable methods and tools to find out the psychological aspects of individuals in the recruitment steps, first, we need to know why it is important to explore these aspects in an occupational setting. For example, Nikolaou and Tsaousis (2002) explored that for some job types such as medical and psychological, certain skills like empathy and impulse control are necessary. Therefore, using some methods in recruitment might be helpful to prevent traditional and typical selection processes and help to predict a personality which is fitted a particular job role.

Section C: Personality

2.5 The Importance of Studying Personality Theories in the Occupational Setting

Philosophers have always been curious to find out the differences between people and there is a plethora of research by philosophers to find out the reasons why individuals have different behaviours and personality types and what causes differences between them.

The first step before exploring theories of personality is to find out exactly what is meant by the term personality. Based on the definition of Meriam Webster and Oxford dictionary, the word personality originates from the Medieval Latin word, '*persona*' which meant to be a theatrical mask for theatre actors to present the aspects of their roles' characters by using the masks. Also, the word characteristic originates from the Greek word '*kharaktēristikos*' which means a symbol or imprint on the soul. It is a feature or quality belonging to a person to distinguish an individual. Also, Gonzales-Frisbie (2006, p. 188) discusses that 'Carl Jung believed that behaviour was affected by personality and several decades later, psychologists used that theory to develop personality tests.' Table 2.2 shows the different broad definitions of personality by psychologists chronologically.

Table 2.2: Personality definitions

Psychologist	Year	Definition
Raymond B. Cattell	1950	'Personality is that which permits a prediction of what a person will do in a given situation.' (Englar, 2014)
Gordon W. Allport	1961	'Personality is a dynamic organisation within the individual of those psycho-physical systems that determine his characteristic behaviour and thought.' (Shergill, 2010)
Walter Mischel	1976	'The distinctive pattern of behaviour, including thoughts and emotions that characterize each individual's adoption to the situation of his or her life.' (Mahmud, 2008)
Funder	1997	'An individual's characteristic patterns of thought, emotion, and behaviour, together with the psychological mechanism hidden or not behind those patterns.' (Zhang et al, 2012)
Pervin and John's	2001	'Personality represents those characteristics of the person that account for consistent patterns of feeling, thinking and behaving.' (Dörnyei, 2014)

From the above table and other studies on the literature review of personality, it is concluded that personality psychologists try to understand the different aspects of individuals and how they cause different behaviours. The history of literature on studying psychological aspects of people can be divided into early, contemporary, and modern studies. Not all validity of personality theories scientifically has been proven, however, regarding Cervone and Pervin's (2015, p. 3) point of view, all theorists need three key requirements for scientific observation. '1) The study should be on a large scale and include diverse groups of people, 2) ensure that

observations of people are objective (not influenced by personal feelings or opinions in considering and representing facts), 3) use specialised tools to study the thinking process, emotional reactions, and biological systems that contribute to personality functioning.' So, by considering the above three essentials, the literature with scientific observations is considered.

2.5.1 Exploring early, contemporary, and modern studies of personality theories and how they have been assessed

The study of personality has a long history. The ancient Greek literature mentions philosophers including Homer (9th or 8th century BC) as the forerunner of defining characteristics, Pythagoras (570-495 BC), Socrates (470-399 BC), Hippocrates (460 - 377 BC) and Plato (427-347 BC) as the ones who made the root of the philosophy of mind in the early ages (Abraham, 2016). Studies by philosophers like Hippocrates, Plato and Aristotle formed the groundwork of personality theories and led future researchers inspired by their work. Based on the findings, all the personality theories derived from the theory of four humours by Hippocrates and the theorists by adopting or disproving the humour theory of Hippocrates explored their theories of personality (Stelmack and Stalikas, 1991). Hippocrates in his treatise 'The Nature of Man' (translated into English by Jones, W. 1959) was inspired by the fact that the universe consists of four elements (wind, water, fire and earth), stated that humans are composed of four elemental fluids (blood, phlegm, yellow bile and black bile). He believed that these four forces should be balanced to keep the body healthy. Centuries later, Galen (130 AD - 210 AD) developed Hippocrates's theory and stated there are four qualities of warm, cold, dry and moist which are combined in four humours. He described the individuals' characters by using physiological reasons to prove that the different behaviours in humans are based on their temperament and if they lose the harmony of the four humours, the human temperament becomes imbalanced and that causes personality differences (Stelmack and Stalikas, 1990).

Although Hippocrates's theory formed the basis of thinking about personality differences, Plato (427 - 347 BCE) by his theory of 'divisions of the soul' or 'three parts' of personality in his treatise "Republic" written around 380 BCE had an enormous impact on explaining aspects of human psychology. Plato believed that the soul comprised three parts called *Logistikon* (reason), *Thymos* (emotion) and *Epithymia* (desire). In this theory, the reason is more

powerful than the others and it is up to the individuals by using the power of *logistikon* to direct and coordinate the speed of the other two parts. He suggested that there should be a balance between the 3 parts of an individual's personality (Abraham, 2016). Aristotle and his student Theophrastus as the first philosophers had studied Ethics in the fourth century BC. Aristotle divided people's behaviour into categories of moral and immoral and believed that individuals' differences are in how much they are in excess, defect and intermediate levels of moral and immoral categories. Theophrastus described 30 characters or personality types of individuals which later the translator preferred to call them traits (Matthews et al., 2009). See Table 2.3 is a summary of personality theorists from early ages up to now and the importance of their studies. All the below information is extracted from available citations for the researcher and then categorised chronologically by the researcher in the table.

Table 2.3: A shortlist of personality theories from Middle Ages up to now

Theorists	Year	Studies
Homer	8 th -9 th century BC	Homer's Iliad and Odyssey epic poems have been found as the oldest literature about human characters and as Vivante has written, "Homer plunges us into the very essence of character" (Vivante, 1985). Havelock (cited in Frobish, 2003) demonstrated that "one's effort to understand public ritual and law in Homeric society will inevitably lead one to discern also items of the personal code as these are interwoven with the public. He has argued that the code of ethical behaviour is so penetrative and pervasive in Homer's lines that its analysis could proceed almost indefinitely." (Frobish, 2003)
Hippocrates	460-377 BC	According to Hippocrates, there are four humours in people which build their personality. The humours that affect the behaviours are blood, yellow bile, black bile and phlegm and the personality types based on humours are sanguine, choleric, melancholic and phlegmatic. (Matthews, Deary and Whiteman, 2009)
Plato	427-347 BC	According to Plato, there is a tripartite soul (psyche): <i>Logistikon</i> (logic and thought), <i>Thymoeides</i> (emotion, anger and temper) and <i>Epithymetikon</i> (desires like food, power, sex et.). Different people have a different balance of these three elements which makes their personality. (Abraham, 2016)
Aristotle	384-322 BC	According to Aristotle as one of Plato's students and the first biological psychologist, the psyche in human beings are the product of a biological process of the body also he described one's character as the perception of others' moral judgment. (Frobish, 2003)

Theophrastus	371-287 BC	According to Theophrastus's book, he described 30 'characters' or personality types of individuals which later the translator preferred to call traits. (Matthews et al., 2009)
Galen	130-200 AD	According to Galen, the characteristic of people depends on the body of human which compounds warm, cold, dry and moist. e.g., Those who have an abundance of blood are warmer and more active people. (Stelmack and Stalikas, 1991)
Rene Descartes	1596-1650	According to Descarte's dualism theory, the human body and the human mind live in two different worlds. He believed minds can exist without bodies and explained how personalities differ based on this spiritual entity interacted with the physical body (Lacewing, 2010).
Johann Kaspar Lavater	1741-1801	He developed the idea of Physiognomy to assess individuals' characters or personalities from their outer appearance and facial characteristics (Premuzic and Furnham, 2010).
Franz Joseph Gall	1758-1828	He developed Phrenology as a science of character divination. He believed personality is measurable "by assessing the patterns of bumps on people's skulls" (Premuzic and Furnham, 2010).
Immanuel Kant	1798	He made a distinction between the psychological and physiological aspects of temperament (Hippocrates and Gallen theory) in his Anthropology book to show personality differences. He divided the temperaments into feelings and activity (Matthews et al., 2009).
Francis Galton	1822-1911	According to Galton, the individual's differences are based on their general intelligence which might be heritable. (Rushton, 1990)
Wilhelm Maximilian Wundt	1832-1920	He made a clear distinction between the human body and personality and developed Galen's theory in his book 'elements of physiological psychology'. He classified temperaments into the strength of emotion and changeability (Wundt, 1904).
Sigmund Freud	1856-1939	According to Freud, the human personality is composed of three elements: the id, the ego and the superego. These aspects of personality influence an individual's overall personality and behaviour (White, 2000).
Alfred Adler	1870-1937	Adler called his personality theory 'Individual Psychology'. Despite Freud's theory which believed all behaviours derived from sexual instincts, he believed human behaviour derives from inferiority feelings and striving to overcome those feelings to feel significant since they are born. (Ellis and Abrams, 2009). He confirmed that human personality was not motivated by sex or aggression. Human desire and attempt for superiority to create a unique life is the primary motivation in human personality. Also, he stated that personality forms in the first 5 or 6 years of life. (University of Minnesota, 2015)
Carl Jung	1875-1961	According to Jung as one of Freud's students, he was not in agreement with Freud's emphasising on the importance of sexuality. Jung believed that "the collective unconscious contains a variety of archetypes or cross-culturally universal symbols, which explain the similarities among

		people in their emotional reactions to many stimuli.” (University of Minnesota, 2015)
Katharine Cook Briggs and her daughter Isabel Myers	1875-1968/ 1897-1980	The mother and the daughter invented a personality test MBTI (Myers Briggs Type Indicator), for individuals to become more self-aware. The test is based on Jung’s theory, and it is not about good or bad, best or better personality type. It helps people to know their personality type, preferences, strengths and weaknesses. The test questionnaire can identify 16 personality types as a subcategory of four different scales (extraversion-introversion, thinking-feeling, judging-perceiving and Sensing-Intuition). (University of Minnesota, 2015)
John Broadus Watson	1878-1958	Watson as the first behaviourist believed that the behaviour of people depends on their experience in the environment. Watson’s behaviourism rejected the concept of the unconscious and internal mental process because it was not observable. (Watson, 2017)
Eduard Spranger	1882-1963	Spranger in his book ‘Types of Men’, analysed personalities in 6 value attitudes including the theoretical, the economic, the aesthetic, the Social, the political and the religious. (Gaus, 1990)
Henry C. Link	1889-1952	According to Link’s book ‘The return to Religion,’ he defined personality as ‘the extent the individual has learned to convert his energies into habits or actions which successfully influence other people.’ (Link, 2009). Also, in his other book ‘Employment Psychology’, he believed that the scientific way to select suitable candidates for jobs is through personality tests. (Link, 2017)
Gordon Willard Allport	1897-1967	Gordon has identified 18000 English personality terms and also made a difference between traits and behaviour. He believed that traits as mental structures guide behaviours. (Matthews, Deary and Whiteman, 2009)
William Sheldon	1898-1977	He published a system of personality classifying based on body types in 2 documents (the varieties of human physic and the varieties of temperament). He classifies 3 types of bodies into ectomorph, endomorph and mesomorph. (University of Minnesota, 2015)
Erik Homburger Erikson	1902-1994	His idea was influenced by Freud. Contrary to Freud’s opinion that emphasized the conflict between the id and the superego, Erik believed culture and society have conflicts within the ego. He defined eight stages of human life from infancy to maturity 65+ and claimed if each stage passes successfully leads to a healthy personality. (University of Minnesota, 2015)
Raymond Bernard Cattell	1905-1998	Cattell discovered 16 major personality factors (16 PF): Reserved vs Outgoing, Less intelligent vs more intelligent, Emotional vs stable, Humble vs assertive, Sober vs happy-go-lucky, Expedient vs conscientious, Shy vs venturesome, Tough-minded vs tender-minded, Trusting vs suspicious, Practical vs imaginative, Forthright vs shrewd, Placid vs apprehensive, Conservative vs experimenting, Group-tied vs

		self-sufficiency, Casual vs controlled, and Relaxed vs tense. (Cattell, 1983)
Abraham Harold Maslow	1908-1970	According to Maslow, the behaviour of people depends on their basic needs. He developed a motivational method to describe human needs from the beginning steps to self-actualisation. These levels in the ordered hierarchy are individuals' physiological needs, safety needs, belonging needs, esteem needs and self-actualization. (Allen, 2015)
Eric Berne	1910-1970	Berne's personality theory was influenced by Freud. He claimed there are three different ego states (Parent, Adult and Child). Each ego stage defines a set of behaviours (both verbal and nonverbal behaviour). (University of Minnesota, 2015)
Albert Ellis	1913-2007	He developed REBT (Rational Emotive Behaviour Therapy) theory. Psychology therapists by using the Ellis model try to replace irrational emotions and reactions with more rational behaviours in people. (University of Minnesota, 2015)
Hans Eysenck	1916-1997	According to Eysenck, personality traits are genetically inherited and analyse an individual's personality as a hierarchy of traits. Neuroticism/emotional stability and introversion/extroversion are two categories that Eysenck divided all human traits into them. (Rein and Eysenck, 2017)
Albert Bandura	1925 up to now	According to him, one's personality shapes based on other behaviours and actions and the environment around people influence their personality.
Norman Henry Anderson	1925 up to now	In his survey, 100 American college students rated 555 personality trait words as Favourable traits, Neutral traits and Unfavourable traits. Each word was rated on a 0–6 scale (Matthews et al., 2009).
Marcel Ponton	1965 up to now	He tried to understand personality from a neuropsychological point of view. He believes there is no universally accepted definition of personality. (Ponton and Carrion, 2009)

As shown in the table above, the literature on personality studies demonstrates that all the theorists were trying to find out why people are different and what the sources of causes are, which leads to differentiation in human personality. Analysis of the literature leads to assuming two general causes. The first is about factors contributing to the changes within human beings and biological innate dispositions which are endogenous and the second is about exogenous environmental factors. (Roberts et al., 2006; Hopwood et al., 2011; Costa and McCrae, 2013). Scientific methods developed by theorists to find out about individuals' differences are known as personality tests. (Lanyon and Goodstein, 1997; Furnham, 2008)

2.5.2 Exploring the importance and necessity of applying personality tests in occupational settings at the recruitment stage

Taylor (2014) points out that recruitment as a human resource management activity is the process to attract and select potential employees and selection techniques as one of the last steps of recruitment decide which applicant is the most proper job fitted. Regarding Kristof-Brown et al. (2005) 'fit' means similarity or match between need-satisfaction and demand-ability. Fit can be discussed in various dimensions including skills, personality, needs, preferences, goals, values and attitudes. Also, French et al. (1974) and Kristof-Brown et al. (2005) reported in their study that there are different strategies in measuring the fit including a) directly or perceived fit which is to ask individuals directly to explain their perceived fit between themselves and the job, environment, etc. and b) indirectly which is through assessment tools and researchers believe it might be subjective because of unique characteristics of the environment or the people who are working there and strong characteristics of organisational culture. Lauver and Kristof-Brown's (2001) research on the actual fit and they believe actual fit is only feasible through mathematical measurements through individuals' profile correlation with job needs and it is not about perceived fit. Organisations need to recognise what criteria are needed to decide on individuals' suitability to have well-designed recruitment processes. Considerable amounts of literature have been published on factors related to the recruitment process. Any organisation has a set of criteria and rules in the recruitment process to choose the right person for the required job. Based on the majority of research findings the criteria and qualities that organisations are mostly looking for in selecting candidates can be divided into two categories. 1. Observable (functional) 2. Latent.

The observable category is acquisitive and documented and includes employment history, education, qualifications, knowledge and skills. Researchers (Carless, 2005; Stone et al., 2007; Boon et al., 2011; Stone and Stone-Romero, 2012) found organisations by applying different selection methods try to assess and focus on KSAO's (Knowledge, skills, abilities and Other characteristics) of job candidates to predict their performances and find out person job fit based on job's requirements. In this regard, Edward (1991) suggested that there are two basic concepts in person-job fit: (a) demand abilities including KSA's assessment (b) need-supplies/supplies-values including individuals' values, well-being and desires which lead to

satisfaction. Also, researchers (Kristof 1996; Bretz and Judge 1994) suggested that developing consistent HR practices can improve a person's KSAO's to enhance the match between employees and their job.

Researchers (Caldwell and O'Reilly III, 1990; Edwards, 1991; Sekiguchi, 2004; Carless, 2005) define person-job fit as a fit or a match between a person's ability and a specific job role's expectations and requirements. Moreover, other researchers Carless (2005) and Caplan (1987) recommended that there are two kinds of fit including a) subjective and b) objective. Based on their research, objective assessment of job applicants is free of bias by employers' perception about the KSAO's of a person and the subjective fit is targeted by the employers who make the last decisions if an applicant to pursues work with an organisation or not. However, it is questionable if making a selection decision on KSAO's alone is effective.

The latent category is hidden, inherent and lies deep below the surface of an individual's iceberg¹⁵ (Klein et al., 2004). It is what a person is within and is not liable to change easily. Also, regarding Hofstede et al. (2005) individuals' behaviours originate from values and values are very difficult to change when they are formed in people. In a candidate's selection process along with assessing the documents which are easy to check their validity, the psychological aspects such as the personality of people are not observable or easy to assess by human resource managers and employers (Matthews et al., 2009). Occupational psychologists, by devising objective tests of ability and personality, try to make much better predictions of an individual's further performance presented rather than other possible ways. These occupational personality scales and tests are more focused and work-related personality traits which aim to measure narrower and unique personality characteristics (Nikolaou and Foti, 2018). According to the two selection criteria, two questions arise: 1) what is the necessity of considering individuals' personality types at the recruitment stage and 2) how is it possible to assess the personality types?

The psychological topics in work settings that tap the employees' personalities were questioned by Robert Guion and Richard Gottier for the first time in 1966 (Gatewood, Field and Barrick, 2016). Industrial and organisational psychology (I/O) as the branch of psychology

¹⁵ According to McLeod (2013), "Freud (1900, 1905) developed a topographical model of the mind, whereby he described the features of the mind's structure and function. Freud used the analogy of an iceberg to describe the three levels of the mind."

has been known as a scientist-practitioner model to follow two objectives: 1) to understand and increase the knowledge of human work behaviour (scientists), 2) to improve personnel's work behaviour and work environment (practitioners). So, I/O psychology by focusing on employees' attitudes and behaviours increases workplace productivity as a long-term benefit for the employers (Riggio, 2017).

Although personality assessment and its association with job performance, still remains a topic of controversy due to the lack of evidence and academic rigour (Nikolaou and Foti, 2018), interest in the use of PATs for predicting job performances has increased over the last two decades (Stone and Stone-Romero, 2012). An examination of the literature shows that psychological personality assessment tools have been used in two general ways: 1) to help psychologists diagnose mental health issues and behavioural disorders, and 2) to help employers in the recruitment process choose candidates whose personality is compatible with the requirements of particular positions, in addition to assisting employees to improve the efficiency of their performance and ensure constructive communications with colleagues. Nevertheless, it should be noted that 'the term "psychological testing" covers a broad range of tests, including tests of cognitive ability and personality tests.' (Stabilet, 2002)

According to Lanyon and Goodstein (1997), personality assessment refers to the methods and tools for gathering and organising information about a person in the expectation that this information will lead to a better understanding of that person. Also, Cohen et al. (2013) define personality assessment as a psychological evaluation tool, which, using the holistic evaluation of an individual, aids decision making and allows assessors to conclude the future behaviour of a person.

Klein et al. (2004) in Society for Human Resource Management (SHRM) Foundation research see individuals like an iceberg where their work behaviour as an observable factor is the iceberg tip and acquired KSAOs and innate criteria like personality, value and interest are under the tip and by implementing valid assessment tools it is possible to predict the behaviour and future job performance.

Regarding the focus of this study, in occupational settings, the research literature only addresses personality assessment tools and not the wider range of psychological testing. According to Morgeson et al. (2007), personality assessment tools are useful in determining

what type of personality may be the most appropriate for an advertised position, thus allowing personnel managers to select new staff based on personalities that match the job requirements.

Researchers (Mulvihill, 2006; Kramer, 2007; DeArmond, 2011; Schoenberger, 2012) indicate that PATs are divided into two principal categories of objective and projective. In an objective test like Myer Brigs Type Indicator (MBTI) the individual chooses from a limited response (see Appendix 2.1). However, in projective tests like the Rorschach inkblot test interpreting pictures reveals the personality of individuals. According to Furnham (1994), psychologists believe that objective personality tests are a much better way for job performance prediction. According to Cohen et al. (2013), the American Psychological Association (APA) announced that about 20,000 new psychological tests are developed each year for a specific research study or the refinements of existing tests.

According to Hogan and Holland (2002), evaluating the personality is based on the job requirements so applying PATs in recruitment processes depends on the job requirements. It can be for internal or external selection. If one were selecting as a manager, administrative assistant or worker, the assessment methods might be the same but the personality criteria to choose are different. See Appendix 2.2 for the most cited PATs to date in occupational settings.

2.5.3 Do PATs at the recruitment stage determine personality job fit?

There is various research that supports the significant relationship between applying PATs at the recruitment stage and predicting job performance. (Gellatly et al., 1991; Jackson et al., 1991; Rothstein et al., 1994; Goffin et al., 1996; Hurtz and Donovan, 2000; Barrick et al., 2002; Morgeson et al., 2007; Tett and Christiansen, 2007; Morris et al., 2015). However, before exploring the nexus between PATs and job performance prediction at the recruitment stage, the initial step is to investigate if PATs determine personality-job fit as if an individual's personality fits with a job role this can impact on job performance too. The studies regarding investigating the nexus between PATs and person-job fit are fewer than PATs and job performances. Anderson et al. (2004) and Chan (2005) stated that the reason to study the relationship between PATs and person-job fit is to find out if PATs can enhance the chances of successful recruitment. Also, Weber and Dwoskin (2014) discussed to streamline the hiring

process personality tests are hiring aids tools especially in hiring customer service jobs. Piotrowski and Armstrong's (2006) study from 151 firms shows the majority of companies are reluctant to apply PATs as the indicator of person-job fit and after a while, they have reduced their use of online testing of PATs in pre-employment assessment and re-thinking of implementing traditional recruitment methods. Among the companies, 20% of them include PATs to determine person-job fit. However, the study has not investigated the impact of the paper and pencil method. Barbian (2001) and Bates (2002) cited in Piotrowski and Armstrong (2006) believe PATs are not standardised and having lack validity to able to determine person-job fit. In contrast, Cascio (1995) discussed that well-developed personality tests in the recruitment processes determine person-job fit. Morgeson et al. (2007) by studying the history of using PATs in industrial and organisational psychology demonstrated that PATs can determine a person-job fit however it is the implication of PATs that may cause distortion and applicants who are motivated to get the job may provide answers that they think are those the firm requires. However, he mentioned in his study that the wrong application of tests does not mean PATs do not impact on determining person-job fit. Dipboye (2002) cited in Morgeson et al. (2007) believes the wrong application of PATs is not just about people distorting their responses, sometimes the tests are vague, and test-takers do not understand the questions or cannot interpret the items. Campion (1996) cited in Morgeson et al. (2007) believes the validity of PATs is low and by comparing personality tests and cognitive tests, cognitive tests are better determinators of person-job fit as they predict training criteria very well.

Researchers (Pervin, 1968; Chatman, 1991; Kristof, 1996; Holland, 1997; Kristof-Brown, 2005; Ehrhart and Makransky, 2007) have studied person-job fit as a part of person-environment fit as they think that person-environment fit is a wider aspect and overarching concept which can be conceptualized in a variety of ways including person-job fit, person-vocation fit, person group fit, person supervisor fit and person organisation fit as an important research domain. Also, Perrin's (1968) study demonstrates that individuals' characteristics fit with the environment and cause more positive outcomes and experiences. Based on other researchers' research (Kristof 1996; Cable and Edwards, 2004; Boon et al., 2011; Guan et al., 2011) there are two main conceptualisations in person-environment fit including supplementary and complementary fit. They expressed that person-job fit is a

complementary fit that demonstrates the fit between an employee's abilities and what the job demands and also the organisation's preferences in developing employee's abilities to fulfil its needs. Lauver and Kristof-Brown (2001) in their research discussed that each of these above 'fits' results in positive work attitudes, however, it does not mean that if an employee fulfils one of the fit criteria necessarily fits with the others too. For example, an employee might be fitted with his/her job but not with organisational values. In this regard, Hollenbeck's (1989) empirical study demonstrates that if a person fits with a job and not the organisation, he/she should look for a similar job in the new organisation.

Based on Ehrhart and Makransky's (2007) study by 178 participants, personality does not necessarily predict person-job fit. By applying the Job Characteristics Model (Hackman and Oldham, 1980) in their research specified five job characteristics (skill variety, task identity, task significance, autonomy, and feedback from the job) under analysing critical psychological aspects of individuals which affect personal and work outcomes represent how the job positively or negatively impacts on the employee's attitude and behaviour. They chose the five-factor model as the assessment criteria of personality such as an individual's 'openness to experience' personality was not fit with the 'creativity' job characteristic or having an 'extraversion' personality does not fit with the 'leadership' job characteristic. The only criterion in their research that supported personality might fit with person-job fit was 'conscientiousness' which fitted with 'structure' job characteristics.

Caldwell and O'Reilly (1990) confirmed that individuals display different characteristics based on the situation. For example, a person who has been identified as an extrovert displays his/her emotions differently in formal and informal meetings. So, based on their study, personality tests can determine the personality of people, however recognising a person-job fit should be considered with regard to the situation (person-situation fit). Bern and Funder (1978) confirmed this idea and mentioned that applying idiographic measurements such as ipsative tests relating the person and the situation and holistic comparisons of personality dimensions are effective techniques to find out if an individual's personality which has been identified by PATs indicates how a person acts in a real job situation.

2.5.4 The outcomes of person-job fit for an organisation

The overview of the literature shows most of the studies are focusing on person-organisation fit when there is conformity between an individual's values and an organisation's values (Stone and Stone-Romero, 2012) and they demonstrated that a fit between individuals and organisations leads to long-term effectiveness outcomes and organisational success (Klein et al., 2004). However, there are fewer studies that focus specifically on person-job fit and its outcomes for organisations. Boon et al. (2011) in their studies looked for achieving person-job fit as a complementary fit which was discussed in section 2.5.3 through implementing HR practices and strategies. However, they were less focused on this subject to discuss the outcomes of person-job fit for organisations. They discussed that HR practices make an indirect impact on employees' performances because the perceptions of employees about HR practices are different, and person-job fit significantly plays a mediator and moderator role in between. Their study demonstrates that employees' perceived HR high-performance strategies mostly effect indirectly on the organisation's outcomes including commitment and employees' performance e.g., employees' negative perception of HR practices does not necessarily make them leave an organisation but as an indirect impact they might think they do not fit with their job or the organisation and intend to leave. Kristof-Brown et al. (2005) and Boon et al., (2011) demonstrate the impact of person-job fit on the outcome of the organisation in HR concepts as they believe person-job fit impacts an individual's behaviour and attitudes which results in a high level of job satisfaction as the person-job fit outcome. However, Lauver and Kristof-Brown (2001) and Porter (1962) demonstrated that the definition of job satisfaction associated with person-job fit depends on what people expect from a job and is more linked to their everyday tasks and activities. Kristof-Brown et al. (2005), Cable and Judge (1996) and Hollenbeck (1989) empirical studies demonstrate that the outcomes arising from person job fit effect on person job-related outcomes (e.g., turnover intentions and job satisfaction) and not organisational overall outcomes (e.g., organisational commitment, work towards the values of the organisation, organisational turnover) and the person-job fit people are more successful at their job (Erdogan and Bauer, 2005). Nevertheless, research by Boon et al., (2011) shows applying proper HR strategies to employees with low job fits, such as offering opportunities to increase their skills and knowledge can increase their motivation and decrease the level of intention to leave the job.

Kristof-Brown et al.'s (2005) study indicated that task performance and job satisfaction are impacted strongly by person-job fit.

Kristof-Brown et al.'s (2005) study indicates that the outcomes of person-job fit are categorised in: a) there is a 'strong relationship between person-job fit and job satisfaction, organisational commitment and intent to leave (also studied in Lauver and Kristof-Brown, 2001), b) there is a 'moderate' relationship between person-job fit and co-worker satisfaction attitudes, supervisor satisfaction and organisational identification, c) there is a 'modest' relationship between person-job fit and overall performance and d) there is 'somewhat' relationship between person-job fit and strain.

Ivancevich (1979) and Caldwell and O'Reilly (1990) demonstrated in their research that performance and the speed of decision-making are higher when there is a person-job fit. Some researchers (Erdogan and Bauer, 2005; Bauer et al., 2019) in their study discussed that to keep pace with global competition and faster innovation there is a necessity of considering proactive behaviour in selection methods as an essential and required characteristic. Proactive people are more anticipatory, change-oriented and self-initiated (Bateman and Crant, 1993). They explained that proactive behaviour leads to career success, organisations' success and benefits because proactive people are more efficient and self-motivated employees (Bauer et al., 2019) and person-job fit is (a person with a high proactive fit with the job and organisation) a moderator in the selection method. It means that when the person-job fit is high, the relationship between proactive behaviour and intrinsic career success is stronger. Researchers (Caplan, 1987; Adkins et al., 1994; Carless, 2005) demonstrated that applicants' subjective fit (discussed in 2.5.2) is a good predictor of hiring outcomes. Although the socialisation outcomes including extracurricular and civic activities (Bauer et al., 2019) were discussed in their study, they have not mentioned what are the organisations' outcomes.

Section D: Personality Assessment Tools (PATs)

2.6 Critical Viewpoints on the Effectiveness of Applying PATs at the Recruitment Stage

Reviewing the papers demonstrates that there are two critical viewpoints on the effectiveness and non-effectiveness of applying PATs at the recruitment stage including:

- a) academic people (e.g., journal editors and researchers in occupational psychology and HR fields),
- b) functional people (e.g., HR managers and occupational psychologists who develop the tests).

Based on the observation of the published articles, the nature of being an academic person and specifically an academic psychologist is to be cautious and use the words like 'perhaps', 'might' and 'notwithstanding'. Academics depends on their ontological perspectives and mostly in natural science fields try to prove or disprove a hypothesis and there is less tendency to be in the middle. However, occupational psychology as a social science is different from the science of physics and mathematics. It is not possible to make a decisive decision for the complicated nature of human beings. Reviewing the literature shows a challenge between academic occupational psychological consultants and human resource managers or personnel managers. Academic researchers' viewpoints are both hesitant and radical and what they suggest to HR departments is not always what they expect or wished to hear. However, HR people are concerned about issues like costs and time (Ryan and Tippins, 2004). HR managers and consultants believe that time is money and lost time is never found again, they are time conscious. Also, in the case of adverse impact and undesirable results they should be responsive to the organisation because of applying PATs (Ryan and Tippins, 2004).

According to Lanyon and Goodstein (1997), psychological tests which include all kinds of PATs have been criticised and praised since their existence. Studies in the literature show the pros vs. cons of implementing PATs in the recruitment process. However, there is solid research by the Society for Human Resource Management (SHRM) foundation which has been done by Klein et al., (2004). They demonstrated that, before giving a critical viewpoint, the assessment methods need to be evaluated based on four criteria including validity, adverse

impact, cost to develop and candidate reactions. They believe this is how HR professionals can select the best assessment method. They also believe the best assessment methods are those in which candidates earn the same score with different applications like PCs, mobile phones or paper and pencil. The validity of the tests (Heneman et al., 2003; Klein et al., 2004) is defined by them if the tests are job-relevant and useful for predicting performance.

2.6.1 Opponents' and proponents' viewpoints on the effectiveness of applying PATs at the recruitment stage

The proponents' viewpoints that defend the effectiveness of applying PATs at the recruitment stage might be grouped in several general subjects including costs, brand enhancement, behaviour prediction and job fit. They also see the benefits of applying PATs for two groups in organisations: 1) benefits for employers and business owners, and 2) benefits for job vacancy candidates and current employees.

Some proponents (Weber and Dwoskin, 2014) explain that applying PATs streamlines the hiring process. Research by the SHRM foundation (2004) reveals that three criteria including productivity, cost savings and decreased attrition are linked to each other as the result of applying careful PATs and the fierce competition between organisations to get the best talent has caused 25% of critical positions to remain unfilled which shows the importance of the hiring process. Research by Klein et al. (2004) revealed that applying proper and valid assessment tools resulted in brand enhancement. Even if the candidates are not offered the job, they retain them as their customers. Cavico et al.'s (2015) research explained that people are the greatest assets of an organisation so applying PATs is effective in determining which job candidate is most qualified for the job. Researchers (Schoenberger, 2012; Cavico et al., 2015) demonstrated that PATs are effective to help employers to determine if job applicants will be successful in their future job or not. Contrary to opponents' comments which believes PATs are not a good predictor, proponents believe pre-hiring PATs are helpful and determinators for some jobs like salesperson. As job candidates might show themselves to be very expressive and make a good impression in the interview but their PATs results indicate their real abilities. Mulvihill (2006), has the same opinion that for some specific job performances there is a definitive link between PATs results and the personality of an individual. Researchers' (Mulvihill, 2006; Mujtaba, 2008; DeArmond, 2011) rationale is that by implementing PATs an employer can find a liable employee quickly. They believe PATs

maximise productivity and organisation succession planning and minimise the risk of attrition in the working environment. DeArmond (2011) perceives PATs as an inexpensive tool as they can be applied to many applicants.

The opponents try to demonstrate the ineffectiveness of applying PATs at the recruitment stage. Thomas and Scoggins (2006) argue that PATs are not perfect predictors. Their viewpoints are categorised in subjects including cost, dishonesty, discrimination and low validity.

Low validity: Researchers (Weber and Dwoskin 2014) discussed that the results of PATs make the decision-makers disregard or ignore some needed practical skills for the job. Also, researchers (Barrick et al., 2001; Ryan and Tippins, 2004) confirmed that PATs with low validity would cause wrong hiring decisions. Low validity PATs mean when a test contains personality measures that are not related to job performance or the required job description. They also believe the adverse impact of applying low valid and poorly developed PATs makes a general judgment that all the PATs are not valid and appropriate to use at the recruitment stage. Cronbach (1990) also believed PATs have been much criticised because of respondents' misperceptions and wrong application of tests which leads to unfair and wrong decisions.

Discrimination: Researchers (Weber and Dwoskin, 2014) demonstrated that people who have depression or bipolar disorder or any mental illness even if they have the right skills for the job might not pass personality tests and might lose the job. The two factors of test pressures and anxiety might cause inaccurate results which caused discrimination too (Cavico et al., 2015). The PATs should be respectful and treat people in a dignified manner. Tests that include religious attitudes and sexual orientation are discriminatory in nature (Cavico et al., 2015). Lanyon and Goodstein (1997) confirmed that there is sometimes discrimination against particular groups including women and minorities e.g., men get higher scores in leadership personality criteria rather than women. There is a hypothesis that men, in general, are more dominant than women. So, personality tests could not target the potential leadership personality of women.

Dishonesty: DeArmond (2011) stated that dishonesty is the major problem of PATs as job applicants are not always truthful and manipulate their responses so PATs cannot be counted as accurate behaviour and job performance predictor. Donovan et al. (2014) confirmed that

fake results change the rank order and lead to the reduction of the validity and reliability of PATs and have a negative impact on hiring process decision-making. However, some personality inventories such as HEXACO by its Honesty-Humility scale claims predicting dishonesty in people which to predict someone's willingness to lie and cheat based on a personality test has potential implications for the workplaces (Lee and Ashton, 2018). According to Hilbig (2022), although some of PATs ask the same kind of questions more than once by rewording things several different ways to determine consistency in responses, but if the job candidate knows what employees are looking for regarding the job qualities they might answer with appropriate adjectives. The study of honesty and dishonesty and its dispositional basis in terms of personality traits has greatly accelerated in the past decade but the problem with lying on the personality tests is that in the end, job candidates will end up with a job that does not really fit with what makes them happy. Also, the company will end up with an employee that is not the best match for the job.

In continues of studying honesty and dishonesty Zettler et al. (2015) declared in their study that there are two different types of socially desirable responding in PATs named Self-Deceptive Enhancement (SDE) and Impression Management (IM) which SDE capture unconscious self-distortions, whereas IM capture more conscious self-distortions in job applicants. Dishonest behaviour is a function of differential levels of induced self-esteem and more people cheating and faking the results of PATs in the low self-esteem condition than in the high self-esteem condition. In this condition dishonesty is the person willingness to show himself something that is not true especially if the person feels threatened by telling the truth such as not getting the job (Aronson and Mettee, 1968).

The weaknesses in applying PATs might be grouped under two categories: 1) inaccuracy in PATs and 2) immorality issues. Lanyon and Goodstein (1997) identified inaccuracy comprising improper usage of tests. Designing the test should be free of any misunderstanding and vague statements. However, some critics (Hunter and Hunter, 1984) stated that it is inevitable to design a test without the interference of cultural bias and discrimination against particular groups and genders. Also, Piotrowski and Armstrong (2006) admit there is a potential threat of designing unscientific personality test methods in public and private companies. Studies (Cavico et al., 2015) show there are deterrent factors for organisations that prevent the implementation of PATs in their recruitment. The candidate's dishonesty in answering the

questions, the candidate may not feel good on the test day, it might not be cost-effective for organisations as the test's designers, consultants and assessment specialists may charge high amounts of money to run the tests, misuse of personality tests employment by untrained users, inappropriate circumstances and the fear of respondents in lack of confidentiality.

Most literature examines the impact of using PATs in two areas: 1) The impact of PATs on having accurate hiring and 2) The impact on an organisation's performance outcome.

The Society for Industrial and Organisational Psychology (2001) presented the Behavioural Attribute and Skills Interviewing System (BASIS) model in the hiring process to 'identify employees with outstanding performance potential, shortening the time needed for an employee to become a proficient performer and lengthening employee tenure by ensuring a good job and culture fit' (Hogan, 2001, p. 8). So, the BASIS model seems to target both accurate hiring and increasing organisations' performance outcome. However, some employers have different views and believe that PATs impact is not more than the impact and effectiveness of a standard interview (Hogan, 2001).

Some researchers discussed that using PATs in recruitment is necessary to prevent bad hiring decisions. However, according to Weber and Dwoskin (2014), personality tests screen out only 30% of the least qualified applicants before CV screening by employers. Collins (2015) in his book 'Good to Great' has explained that the factor key for an organisation to change from good to great is at the beginning of the recruitment journey when managers look for 'with whom' rather than 'where' in defining the organisation's policy. He assumes that the organisation is like a bus that 'the great companies start by getting the right people on the bus, the wrong people off, and the right people in the right seat' (Collins 2015, p. 13).

2.6.2 Psychometric tests and HR managers' perspectives if PATs indicate future behaviours

Reviewing the papers (Breaugh, 2008; Rao, 2010; Florea, 2013; Kumar, 2019) shows organisations are not willing to assess job candidates just in a single assessment, they prefer to try a variety of methods to make sure they select the right person for the job. Although, reviewing the papers shows applying PATs in the hiring process was always considered controversial (in the 2.6.1 section the criticism and debates were discussed). However, no single paper has been found to study specifically HR managers' opinions if PATs are indicating future behaviour. In the following discussion, two questions arise (a) if HR managers do not

believe PATs indicate future behaviour, so how do they assess an individual's personality job fit? (b) If they believe in PAT's ability to predict future behaviour, what PATs do they mostly use at the recruitment stage?

Although there is a lack of research to find out HR managers' ideas if PATs are valid predictors of future behaviours, there are studies showing that the popularity and validity of applying PATs increased in the early 1990s (Barrick and Mount, 1991; Tett et al., 1991) and since that time HR people debated the effects of deception in tests which reduced the usefulness and reliability of PATs results (Luther and Thornton, 1999; Rothstein and Goffin, 2000; Christiansen et al., 2005). So, as one of the research gaps, the viewpoint of HR professionals will be addressed by this study.

Regarding the 'b' question (what PATs do they mostly use at the recruitment stage?) studying the papers shows organisations apply psychometric tests as part of their selection process including assessment of personality. They are the standard and scientific way of measuring personal attributes and all aspects of mental performance. The outcome would be ideal for both the employer and job applicant (Fiona and Judy, 2004). Also, Rust and Golombok (2009) believe that the employer recruits the best person whose personality is well suited to the job's specification and ensures the recruitment is based on talent, not bias and the job applicants get the job they want. There are five common types of psychometric tests to measure ability, aptitude and personality.

1. Verbal reasoning
2. Numerical reasoning (non-verbal)
3. Inductive reasoning (diagrammatic)
4. SJT (Situational Judgment Test)
5. Personality tests or indicators

They are testing reasoning ability in 3 different ways. They share a common purpose. They also called logical reasoning test. (Rust and Golombok, 2009)

In the first three reasoning tests cluster (see table 2.4), there is only one correct answer. It is about how you solve a problem and work through a thinking process logically. The reasoning tests are the same in different organisations (public or private sector). The candidates answer the questions in a certain amount of time and cannot pause the time (Rust and Golombok, 2009).

Table 2.4: Reasoning ability tests. Source: Rust and Golombok (2009)

Verbal reasoning	Numerical reasoning	Inductive reasoning
It is a form of aptitude test. The question is a passage of text, and the candidates identify a statement as a conclusion by using their logic and answer if it is true, false, or cannot say.	It is about numbers. The candidates should find the right answer among the potential answers. Only one answer is correct.	They are mostly used for engineering, technical and IT jobs. There are no words and numbers in the test. There are a set of graphics, and the candidate should answer what comes next in the sequence by finding out their patterns and relationships.

Situational Judgment Tests (SJT): as Mulvey (2015) has stated in his book, these tests are real-life problems and the candidates' responses show how they encounter and manage these kinds of scenarios in the workplace they are applying to. These tests are all about candidates' judgments, deciding and doing the right thing. 'In-tray exercise' or 'inbox exercise' is like SJT tests. It is a practical paper-based simulation of a real working day, and the candidates mostly deal with tasks like telephone calls, emails, complaints and reports.

2.6.3 Usefulness and criticism of psychometric tests in the recruitment process

Some research show psychometric tests are trustable and beneficial. A study by Fiona and Judy (2004) indicates that psychometric tests are developed under the careful control and monitoring of psychologists. Also, Rust and Golombok (2009) expressed that those psychometric tests are cost-effective as hiring the wrong candidates can make heavy costs for companies in the future. The test raises self-awareness. Self-awareness can help individuals to solve their psychological and emotional problems. One of the most common reasons which companies use the test is to reduce bias and favouritism and help employers to choose the right person. They are quick and easy to score and in a specified amount of time the recruiters can find out candidates' characteristics.

Along with all benefits of psychometric tests, there are criticisms of them. Although Mulvey (2015) has stated the advantages of these tests, he also stated that they cannot tell us everything in the selection process. They are objective measures to show the ability, aptitude, and characteristics of people but they do not tell us what characteristics are required for the

job vacancy. So, another selection tool is often used alongside the psychometric test in the selection process. The critics (Meade, 2004; Rehman, 2012; Mulvey, 2015) often criticised the accuracy of the test results. The applicants may give answers that do not reflect their real personalities. Although psychometric tests provide feedback for both candidates and managers, they can be time-consuming and decelerate the recruitment process. Some critics believe psychometric tests are not fair enough as some individuals are uneasy and nervous about taking tests and cannot answer properly. Also, different language and cultural backgrounds cause barriers to giving the right answer. Dishonesty is another argument between critics. They believe that candidates try to answer the questions based on the organisation's values and what employers desire to hear (Mulvey, 2015).

2.6.4 Popular psychometric tests

The studies show among the tests in Appendix 2.1, the top five psychometric personality tests used in recruitment to assess career personality characteristic adaptability are the five-factor model (The big five factor), sixteen personality factor questionnaire (16PF), DISC, situational judgement test (SJT) and the Myers-Briggs type indicator.

The Five-Factor Model (FFM)

As Raja (2004) described, the FFM is one of the most popular and standard models in comparison with other personality models in occupational psychology. The study on literature shows the FFM owes its merging to Sir Francis Galton (1884). His lexical hypothesis suggested individuals' personality differences derive from linguistic terms. Later in 1936, Allport and Odbert put Galton's hypothesis (identifying 1000 personality descriptors in linguistics) into practice and identified 18000 words that referred to personality aspects in English and after removing synonyms reduced them to 4500 personality adjectives. Then listed them in four categories including personal traits, temporary moods, judgments, and talents. The FFM model has been investigated by many psychologists and researchers from 1884 until now. However, the popular version origins from McCrae and Costa's (1987) theory and they believed each person has 5 traits (scored from high to low) and divided the personality traits into five factors including Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism (Feist and Gorman, 2013).

Table 2.5: The five-factor model specifications. Source: Ötkena and Cenkci (2015)

The Five Factor Model	
personality traits	specifications
Openness to Experience	person's degree of intellectual curiosity, creativity, and preference for novelty and variety
Conscientiousness	person's degree of tendency toward self-discipline, dutifulness, competence, thoughtfulness, and achievement-striving
Extraversion	person's degree of energy, positive emotions, talkativeness, assertiveness, sociability, and the tendency to seek stimulation in the company of others
Agreeableness	person's degree of being compassionate and cooperative rather than suspicious and antagonistic towards others
Neuroticism	person's degree of emotional stability and impulse control

The big five model is re-conceptualised by the Orpheus test model as the measure of personality in the workplace (Table 2.7). According to Rust (1998), there are five aspects of personality scales including Fellowship, Authority, Conformity, Emotion and Detail in the Orpheus model. The five scales measure individuals' personality in five domains of social, organisational, intellectual, emotional and perceptual. In the Orpheus personality test, the individuals' daily lives pass through the Orpheus domains which indicate their personality differences. The questionnaire included 190 items which measures 7 major scales (proficiency, work orientation, patience, fair-mindedness, loyalty, disclosure, and initiative) and 5 minor scales (based on the big five models) (Rust, 1998). This model has been criticised by some researchers (Hough, 1992; Pervin, 1994; Block, 1995; Stone and Stone-Romero, 2012). They believe the big five measures are not comprehensive enough and too heterogeneous and reflect confounded contrast.

Table 2.6: The Orpheus scales. Source: Rust (1998)

The Orpheus scales	Specifications
Fellowship	Assesses the big five trait of extraversion/introversion
Authority	Assesses the big five trait of tough vs. agreeableness mindedness
Conformity	Assesses the big five trait of openness to experience
Emotion	Assesses the big five trait of neuroticism
Detail	Assesses the big five trait of conscientiousness

 Sixteen Personality Factor Questionnaire or 16PF Questionnaire (16PF)

Raymond. B. Cattell (1905-1998) as one of the most famous theorists of the 20th century used the list of Allport and Odbert personality words as the basis for his work (Primi et al., 2014). However, he argued that 'FFM does not address the full complexity of personality and his 16PF is required to dredge this valuable detail' (Rust and Golombok, 2009, p. 46). The 16PF personality test analyses 16 personality factors and 5 main dimensions of anxiety, sensitivity, impulsivity, independence and extroversion (Boyle, 2008). Cattell believed that each person has the 16 personality factors with a high or low degree which shapes his/her personality and as the test focuses on practical situations rather than general personality traits, could be an individual's predictable indicators in their future job performance (Furnham and Drakeley, 2000).

Dominance, Influence, Steadiness and Conscientiousness (DISC)

According to Marston's theory of DISC (Dominance, Influence, Steadiness and Conscientiousness), normal people show their emotions through four primary types of responses (Sugerman, 2011). DISC assessment as a tool in recruitment shows what behavioural styles a person has and also shows individual strengths, fears and motivators. However, the critics raised DISC profiling shortcomings. The studies show the theory has been widely used in recruitment and overusing of the assessment by candidates might cause learning the preferred answers for particular jobs, so being overused makes it easy to cheat. Although individuals are fully aware of their personality traits, the strong point of the DISC theory is that it does not show an individual's behaviour as black and white. It detects not only someone's primary, secondary, tertiary and quaternary personality traits but also absent personality traits too (Rosenberg and Silvert, 2012).

Situational judgement test (SJT)

In SJT as the personnel selection instrument rather than a psychometric test, the employers ask a job candidate to exercise judgment in a hypothetical problem which is a simulation of a situation in an organisation (work-related situations) (McDaniel et al., 2001; O'Connell et al., 2007). The reason for doing SJT is to find out how an individual handles a particular situation and to measure an individual's cognitive ability, managerial success, conscientiousness, tacit knowledge, emotional stability, and agreeableness (Sternberg and Wagner, 1993; Nguyen and McDaniel, 2001; O'Connell et al., 2007). Also, Olaru et al. (2019) and Christian et al. (2010) stated that SJT is cheap and easy to create and administer and is a valid predictor of the

outcomes of a job including job performance, interpersonal skills, or leadership. So, SJTs save time and resources. McDaniel et al. (2007) and Patterson et al. (2013) in their study expressed that in SJT there are two instructions for job applicants: behavioural tendency which asks individuals to identify how they would behave in a given situation and a knowledge-based test which indicates how individuals should respond in a given situation and evaluate the effectiveness of their response rather than how they would response. McDaniel et al. (2007) research results show that knowledge-based tests have higher correlations with cognitive ability and behavioural tests have higher correlations with personality constructs. Researchers (Sternberg et al., 1993; Motowidlo et al., 1997; McDaniel et al., 2001) confirmed that SJT predicts job performance rather than other personnel selection tests because SJT measures both job knowledge and general cognitive ability. Some personality factors such as conscientiousness, emotional stability, agreeableness and neuroticism, are predictors of work-related performance (Barrick et al., 2001; Poropat, 2009). Researchers (Weekley and Jones, 1999; Hooper et al., 2006; Olaru et al., 2019) discussed that there are some potential advantages of using SJTs including they are less prone to cheat, display less adverse impact, reflect precise judgment processes and easily applied as a formative assessment. As a result, SJTs have become a common and popular tool for personnel selection (Weekley et al., 2006).

Myers-Briggs's type indicator (MBTI)

According to researchers Furnham (1996) and Martin et al. (2016), although MBTI is the most common and strong PAT used as a nonpsychiatric instrument (DeVito, 1985) in personnel selection and self-awareness, it is produced without any scientific or psychological testing and psychologists believe it cannot be as a primary determinant however it can determine basic personality traits. Also, Boyle (1995) indicated that MBTI needs an urgent development of valid and comprehensive local norms within the cultural context. However, Quenk (2009) believes MBTI has high validity and reliability which include a wealth of information as it has relevance in many quite diverse areas. Also, Murray (1990, p. 3) admitted that MBTI 'indices of reliability and validity have been extensively investigated and have been judged acceptable'.

Researchers (Moore, 1987; Gardner and Martinko, 1996; Jennings et al., 2006) confirm that MBTI helps managers with their strategic planning decisions, risk tolerance and conflict management, management training and many management programmes relate to managing

their subordinates effectively. Also, Gardner and Martinko (1996) agree MBTI is proper and valid enough to identify and examine managerial attributes and personality. Nevertheless, they also acknowledged that MBTI measures need because there are still rational worries about the theory and its operationalisation. However, Furnham (2008) believes there is a lack of examination to find out the relationship between MBTI's types of personality and occupational behaviour like satisfaction and productivity. Another criticism of the MBTI test is that the test is identifying preferences, not competencies (Quenk, 2009).

According to Stein and Swan (2019), the MBTI theory does not represent a suitable framework for understanding personality. Despite its immense popularity suffers from internal consistency such as the typing process, predicting personality type and testability problem. Also, there's no evidence to show a positive relation between MBTI types and success within an occupation but in response to criticisms of the assessment, the Myers-Briggs Company's president claims that MBTI is not intended to be a tool for predicting performance or outcomes but instead is intended to lead to an increased senses of self- and other-awareness and understandings.

HEXACO model of personality structure Personality Inventory

According to Ashton and Lee (2007), HEXACO personality inventory is an instrument that assesses the six major dimensions of personality including Honesty-Humility, Emotionality, Extraversion, Agreeableness (versus Anger), Conscientiousness and Openness to Experience. The model began in the year 2000 with the aim of assessing the six personality dimensions found in lexical studies of personality structure as conducted in various languages, and also to reflect our theoretical interpretations of those factors. There are two versions of 60 items and 100 items of answering self-report form. The 60-item version is appropriate when there is a lack of time to complete. The 100-item version is used in research studies and takes about 20 minutes. There is also a 200-item version in the HEXACO revised personality inventory which has higher internal consistency and reliability.

Table 2.7: HEXACO scales. Source: HEXACO scale description (2023)

HEXACO Scales	Scales Description
Honesty-Humility	Persons with very high scores on the Honesty-Humility scale avoid manipulating others for personal gain, feel little temptation to break rules, are uninterested in lavish wealth and luxuries, and feel no special entitlement to elevated social status. Conversely, persons with very low scores on this scale will flatter others to get what they want, are inclined to break rules for personal profit, are motivated by material gain, and feel a strong sense of self-importance.
Emotionality	Persons with very high scores on the Emotionality scale experience fear of physical dangers, experience anxiety in response to life's stresses, feel a need for emotional support from others and feel empathy and sentimental attachments with others. Conversely, persons with very low scores on this scale are not deterred by the prospect of physical harm, feel little worry even in stressful situations, have little need to share their concerns with others, and feel emotionally detached from others.
eXtraversion	Persons with very high scores on the Extraversion scale feel positive about themselves, feel confident when leading or addressing groups of people, enjoy social gatherings and interactions, and experience positive feelings of enthusiasm and energy. Conversely, persons with very low scores on this scale consider themselves unpopular, feel awkward when they are the centre of social attention, are indifferent to social activities, and feel less lively and optimistic than others do.
Agreeableness (versus Anger)	Persons with very high scores on the Agreeableness scale forgive the wrongs that they suffered, are lenient in judging others, are willing to compromise and cooperate with others, and can easily control their temper. Conversely, persons with very low scores on this scale hold grudges against those who

	have harmed them, are rather critical of others' shortcomings, are stubborn in defending their point of view, and feel anger readily in response to mistreatment.
Conscientiousness	Persons with very high scores on the Conscientiousness scale organize their time and their physical surroundings, work in a disciplined way toward their goals, strive for accuracy and perfection in their tasks, and deliberate carefully when making decisions. Conversely, persons with very low scores on this scale tend to be unconcerned with orderly surroundings or schedules, avoid difficult tasks or challenging goals, are satisfied with work that contains some errors, and make decisions on impulse or with little reflection.
Openness to Experience	Persons with very high scores on the Openness to Experience scale become absorbed in the beauty of art and nature, are inquisitive about various domains of knowledge, use their imagination freely in everyday life, and take an interest in unusual ideas or people. Conversely, persons with very low scores on this scale are rather unimpressed by most works of art, feel little intellectual curiosity, avoid creative pursuits, and feel little attraction toward ideas that may seem radical or unconventional.

2.7 Ipsative vs. Normative

2.7.1 Exploring PATs through Ipsative and Normative measurements at the recruitment stage

Examination of the literature shows that dispersed and decentralised journal papers relate to the importance of inducting PATs at the recruitment stage to achieve the person-job fit. However, the approach of organisations to apply PATs at the recruitment stage may be depending on their needs to improve their organisations' strategic plan and in line with their

competitive advantages. The studies show deliberation of the personality variables by HR managers or personnel managers at the recruitment stage may be conducted through the following dimensions:

1. They may consider single or multiple traits. However, critics believe that measuring one sort of trait is not a rich source of job prediction,
2. They may measure the cognitive or biological-based traits,
3. They may measure normal and abnormal traits,
4. They may measure dynamic vs stylistic traits.

However, the above dimensions are not acceptable by all the authors to be job performance predictors. Studies associated with occupational psychology and business context show applying PATs at the recruitment stage to predict job performance is controversial. The reason for that is some critics reject the usefulness of PATs in total as a job performance predictor and some critics believe all the PATs cannot be job performance predictors as there is a high possibility of cheating by the candidates in answering the questions. So, they developed ipsative personality measurements to avoid the fake ability of responses.

Ipsative vs. Normative personality measurements

There are two assumptions about the idea of developing ipsative personality measurement. Some authors believe it originated from Marston who developed the DISC model in the 1920s (Martinussen et al., 2001; Van Eijnatten et al., 2015) and others believe it originated and was named first by Cattell in the 1940s (Block, 1957; Heilbrun, 1963; Cattell and Brennan, 1994; Hammond and Barrett, 1996; Meade, 2004). Ipsative literary means 'of the self' and indicates personality measurements within a person and it is an intra-individual comparison not inter-individual (Eijnatten et al., 2015). The studies show there are agreements among researchers on the definition of ipsative and normative measurements and also the reasons for bringing up the ipsative measurements along with normative ones. The normative (Likert scales) tests include scoring and comparing a norm of an individual with a score of the group in which the individual indicates the level of agreement to a specific criterion in a question by answering one of the followings: Strongly disagree, disagree, neutral, agree and strongly agree. However, the ipsative method measures an individual's set of scores (behaviour, personality,

traits and characteristics) which is most true of them and perceived as the most positive answer and it is called the forced-choice technique too (Gordon, 1951; Baron, 1996; Martinussen et al., 2001; Bowen et al., 2002). Researchers (Morgenson et al., 2007; Cavico et al., 2015) believe the only reason that respondents prevent the fake answer is either lack of self-insight or their own honesty.

The reason for creating ipsative data

The studied articles show researchers mostly conduct two analyses (ipsative and normative) and by comparing and analysing the results look for a link between the possibility of cheating ability and personality measurements. The results show participants were able to cheat. Traditionally, individuals' personality criteria were measured normatively (Block, 1957). Regarding Eijnatten et al. studies (2014) normative tests are liable to increase the risk of social desirability¹⁶ easily in individuals' responses. Also, Matthews and Oddy (1997) confirm that normative scales are more disposed to cause biases than ipsative measures. Bowen et al. (2002), and Brown and Maydeu-Olivares (2011) confirm there is a potential for social desirability bias in personality measurements' responses by individuals which causes faking results. Paulhus (1984) also confirmed social desirability responses are targeting two factors: impression management in selection procedures and self-deception. Klein et al. (2004) research show that desirable answers are quite easy to guess and observable so there is a concern of giving fake response by individuals. Some authors (Crowne and Marlow, 1960; Bowen et al., 2002; McFarland et al., 2002; Paulhus, 2002; Martin et al., 2002; Heggstad et al., 2006) confirmed the cheating and distortion attempts in normative forms of personality measurements are intentionally, consciously and deliberated. Respondents try to show themselves most favourably to the examiner by choosing the most positive worded items. Though authors like Wiggins (1986) believe the assumption that respondents are always looking to deceive the recruiters is certainly false. Block (1957) demonstrated in his book that researchers like Cattell (1940s) and Marston (1928) paid attention to the problems caused by normative tests and these concerns led them to look for an alternative personality form of measurement called ipsative. Saville and Willson (1991) stated that ipsative tests can control the responses better than normative forms and they indicate the true choice of respondents

¹⁶ According to Grimm (2010, p. 1) 'Social desirability refers to the tendency of research subjects to give socially desirable responses instead of choosing responses that are reflective of their true feelings.'

in real life. Green and Tull (1978) confirmed that marketing research shows respondents have less difficulty and are more eager to rank between choices rather than rating them numerically. Also, Nikolaou and Foti (2018) confirmed that faking and social desirability reduce the validity and accuracy of tests.

🚦 Issues in the use of ipsative data in the recruitment process

The key issue in adopting either normative or ipsative forms of tests at the recruitment stage is the extent to which one is a more accurate personality predictor than the other to achieve the person-job fit (Saville and Willson, 1991). The issue of applying either ipsative or normative tests in hiring is controversial among authors and the problem of each has been described by researchers. Bowen et al. (2002) stated that normative and ipsative test formats should not be compared parallelly as their questions and answering structures are different and their application is defined for different methods of personality measurements. Johnson et al. (1988) discussed in their article that there is a misleading in ipsative and normative applicability and call the ipsative tests spurious. On the other hand, Saville and Willson (1991) believed calling the ipsative test spurious is ill-advised and rejected the theory of Johnson et al. (1988) by a synthetic data investigation. Also, Hicks (1970) discussed a similar point and believed ipsative forms of tests have inherently statistical limitations. Despite these opinions, Saville and Willson (1991) believed there is not enough evidence to prove the validity of normative tests. The opponents' and proponents' opinions have been found in three sections: 1) data analysis, 2) in accordance with the situation, and 3) reliability and bias.

Data analysis: Alwin and Krosnick (1985) stated that as ipsative tests are based on ranking not rating, showing the differentiation in responses is more explicit than in normative forms. So, for recruiters that would be easier to compare job candidates' personalities and choose the right person. Also, Cronbach (1984) mentioned that ipsative tests are appropriate for comparing individuals scale by scale. However, Bartram (2007) and Guilford (1952) have the opposite view and criticise the ipsative form of data analysis and believe they are not useful on a scale-by-scale basis to compare individuals' personalities. Martinussen et al. (2001) confirm that ipsative tests type force choice responding as the respondents are forced to choose one of the adjectives, they lose the opportunity of choosing other personality criteria. So, if a person has 3 equally high personality criteria, selecting just one of them reduces the possibility of scoring for other criteria. Similarly, Saville and Wilson (1991) and Bartram (2007)

believed it is possible to get high scores in several personality criteria through normative tests compared to ipsative forms and as normative scores are easy to do statistical analysis, the reliability is definite. However, Bartram (1996) in his other research and Baron (1996) showed that if the number of scales in ipsative tests is large, the problems of distortions in data analysis are minimal and less severe. However, Cornwell Dunlap (1994) discusses that large numbers of scales in ipsative data are not easy to analyse by multinomial techniques. Although the idea of ipsative tests was to minimise social desirability, some researchers believe the interpretation of ipsative tests has difficulties and is not easy for statistical measurements (Hicks, 1970; Gordon, 1976; Bowen et al., 2002). Johnson et al. (1988) and Baron (1996) also confirmed that there are no standard ways of measurements for ipsative tests which make problems for data analysis and interpretation. However, Bowen et al. (2002) have a different viewpoint and believe the ipsative test's main benefit is the resulting assessment information as they are less contaminated by faking answers. Johnson et al. (1988) believe that ipsative tests results should not be analysed in normative and standard statistical techniques as the ipsative forms are based on paired comparisons technique, however, the normative forms data analysis is based on R (ordinary) technique analysis which is suitable for rating analysis.

In accordance with the situation: Some researchers (Hicks, 1970; Bartram, 1996; Eijnatten et al., 2014) claim that applying ipsative tests needs situation assessment and they should only use in the situation of hiring when there is a possibility of bias in decision making and the bias reduces the validity of hiring the right person and also there is a threat of distortion in personality questionnaire's validity. Also, Researchers (Alwin and Krosnik, 1985; McCarty and Shrum, 2000; Harten et al., 2011) believe ipsative tests are more appropriate for organisational culture and values analysis as the organisations' values and culture are highly interdependent with the people of the organisation and the risk of social desirability is high in any value analysis. Bowen et al. (2002) stated that as ipsative tests are more appropriate in selection situations rather than normative forms, the recruiters by analysing the particular personality criteria which they look for in a specific job can use the ipsative test as a useful predictor. Bowen et al. (2002) believe job candidates might feel dissatisfied to answer ipsative form tests as people would like to know and control information about themselves, they are presenting to the company and because ipsative techniques reduce the risk of intentional

social desirability, they might find it confusing. Also, they see it as the organisations' responsibility to eliminate negative feelings of respondents toward ipsative tests by giving the right booklet instructions and more time to answer the questions than the normative test.

Reliability and bias: Authors (Baron, 1996; Bowen et al., 2002; Cheung, 2006) discuss that ipsative or forced-choice forms of tests are designed to prevent, control and reduce social desirability and faking good answers in comparison to normative ones and Likert scales. Even though Guilford (1954, p. 528) in his book 'Psychometric methods' cited in Heilbrun (1963) confirmed that ipsative tests counteract and minimize social desirability and common biases in self-report, he also believed ipsative tests formats are not reliable to measure the personality of an individual as there is no single scale for all individuals. Also, Bowen et al. (2002) in their empirical research tried to find an acceptable solution to overcome social desirability and cheating in results and through his research findings, he believed ipsative tests are less subject to cheating. Rosse et al. (1998) also confirmed as normative personality tests' respondents have to choose one answer, they show their favourable image which causes social desirability. So, by ipsative tests socially desirability is controllable. However, in studies that have been done so far, researchers try to find out if and how people distort their personality questionnaires' answers intentionally by asking their sample groups to answer the tests with different instructions. Some researchers (Paulhus and Bruce, 1991; Trapnell and Campbell, 1999) in their research clearly prove that respondents answered the same personality test in different ways when they were asked to do the tests with different instructions. Also, they demonstrated that respondents could even distort Big Five profiles personality questionnaire answers when they were told the questionnaires are for a particular job.

Bowen et al. (2002) in his research made two honest vs. faking sample groups and asked them to answer occupational personality questionnaires in ipsative and normative formats, he could demonstrate that there were significant differences in the two groups' normative responses and the results were contaminated with social desirability in the faking group who knew the questionnaire is for the manager job. However, there were fewer faking results in ipsative scales than normative scales with the same faking group. So, by Bowen et al. (2002) found the low reliability of the normative tests in occupational settings was confirmed as the results showed a high correlation between the normative tests and intentional social

desirability. Although, Bowen et al. (2000) cautioned the readers that still there is a possibility of faking responses in ipsative form as their ipsative results had a small difference from the ideal ratings. Researchers (Guilford 1954; McFarland and Ryan, 2000; Martinussen et al., 2001) explained that ipsative tests have higher reliability and could be an attractive alternative to the normative tests as they minimize and counteract the individual's response biases associated with social desirability and lack of self-insight. Also, Cronbach (1990) confirms ipsative tests are reliable if they are interpreted properly. Apart from social desirability concerns among opponents and proponents of the ipsative and normative tests, Closs (1996) had a different perspective on the ipsative format of testing as he believed when a person has to choose between two or three similar choices, it can be a good predictor of the personality of an individual when making choices in life.

Section E: Exploring the concept of HRM in Iran

2.8 How PATs Are Applied in Non-Western Cultures?

There are two issues regarding personality differences, PATs and cultural context. First, as discussed in section 2.3, personality and culture have a direct link. Second, as personality tests reviewed in section 2.5, it is evident that all the PATs are developed in Western countries. Regarding the focus of this research which is the investigation of PATs effectiveness in Iranian (as a non-Western country) organisations, now the question is if the personality of people is influenced by cultural context, how is it possible to measure the personality of non-Western people with Western mindset personality tests? For example, regarding Aycan's (2005) study, 360-degree self-appraisal and performance appraisal are not applicable in high PD cultures as the appraisal is a unilateral process. Also, it might disturb group harmony in collectivist cultures as considering self-presentation is not a norm. Cheung and Cheung (2003) stated that personality tests in Asian countries are imported from Western countries and then translated from English and cross-cultural consideration were considered in the translation. They discuss in their paper the linguistically equivalent of a personality test there should be a strategy for translation and adaptation of the tests in a cultural context (Butcher, 1996). The test translator should be truly bilingual and have bicultural experience and can make equivalence to the original terms when there are vague expressions (Butcher, 1996; Cheung and Cheung,

2003). They believe after the translation the researcher and the translator should pilot the personality test in a sample group to give them an in-depth insight to find out any problematic issues. However, he discussed in his paper that even a rigid translation is not representing non-Western cultural measures.

2.8.1 Iran

Since the subject of the research is a subset of human resource management, the papers related to this topic have been studied. To explore the use of PATs in Iranian companies among 30 academic papers until the end of May 2021, the overall studies about HRM in Iran and how companies in Iran may use or not use PATs are listed as below:

1. Concept of HRM in Iran: emerge of HRM in Iran, HRM definition in Iran,
2. Recruitment and staffing in Iran,
3. Job satisfaction issues,
4. Career personality characteristic adaptability and person-job fit,
5. Motivational methods,
6. Job performance: work efficiency, work engagement

It is necessary to examine the existing HRM situation in Iran. Based on the Iranian statistical yearbook (2017) the population of young age (under the age of 35) is about 41.000.000 people from a total of 80.000.000 people in Iran which is about more than half of the overall population and they are keen for further knowledge and achieving experiences. Also, universities graduate about 250.000 individuals every year, not including private institutions which are looking for jobs. Although Iran is very good in theoretical knowledge, however, the method of learning is not functional/practical to the needs of the labour market. (Namazie, 2003; Khanmohamadi, 2012). Akhavan and Pezeshkan (2013) suggest that the knowledge aspect of people in today's world business is a survival factor and HR departments are responsible to find out what kinds of knowledge in what quantity and quality exist in the organisation and who has the knowledge in an organisation. Also, Soltani (2010) discusses that the Iranian government's plan is to shift its reliance on oil and gas revenue to develop workforce skills and abilities. So, concerning the high population of Iranian young people, effective management of human resources becomes crucial.

Mirsepasi (1999) in his research as a management consultant in the Iranian manufacturing field has postulated the importance of HR departments as one of the most important strategic

sources which create competitive advantages for organisations. However, there are plenty of difficulties that relate to HR areas in Iranian organisations including low quality of work outcomes and low workforce efficiency. Although these problems and their influence of them on HRM systems are obvious, however, the cause of these problems is not clear. So, the personnel managers' solutions to overcome these problems are short-term. Also, he believes in service sector organisations in which there is no concern of production and financial problems, the employees' efficiency and job performance to provide customers satisfaction is not a matter of concern. He also believes the biggest concern of HR departments and personnel managers is to provide salary and benefits for the employees on time which is highly related to Iran's current financial situation which has been caused by sanctions. Based on his experience of working with different organisations in Iran, he discussed that managers believe one of the main reasons for the lack of HR performance is the related governmental rules which caused limitations in their activities. He mentioned that three areas of HR have received the least attention including attraction, recruitment, and selection in Iran. He believes the most important criteria in the selection of people are personality, aptitude, interest, IQ and skills which are effective in job fitness and career success have not been emphasised in most hiring processes in Iran.

Yeganeh and Su (2008) analysed HRM practices in Iran and believe HRM is a Western concept that has developed from business evolution in the USA. So, to transfer HRM to a non-Western context like Iran, the concept of culture should be analysed carefully to transfer the HRM. Their research which has resulted from in-depth interviews with four Iranian managers demonstrates that because of significant increases in the Iranian population during the last two decades there is an overstaffing in organisations related to the government (public sector) as the government's priority was to reduce unemployment which causes high costs and inefficiency. The new policy which has been ruled by the government is asking the organisations to use their existing employees. However, regarding Namazi and Frame (2007) when a new opportunity arises for hiring, it affects by networking and recommendations and organisations prefer to hire people who are known to them as they believe 'a known person will be more committed and loyal to the organisation A loyal person can learn new skills, but that it is more difficult to teach loyalty to a skilled person' (Namazi and Frame, p. 166, 2007). Yeganeh and Su (2008) report that the recruitment process is affected by nepotism

and personal relations in Iran which can be linked to collectivistic culture. Yeganeh (2007) proposed that regardless of nepotism, there are credential criteria including university degree, experience, and professional skills. Yeganeh and Su (2008) believe after the Islamic revolution (1979) some governmental organisations were more concerned about the Islamic code of conduct and the preferences in the selection are only those who comply with the Islamic/revolutionary criteria. Fesharaki and Sehat's (2018) in their research demonstrate that there is a link between Islamic Human Resource Management (IHRM) and organisational justice as people's perception is that Islam is a religion of justice. Also, they investigate that there is a link between IHRM practices on employees' commitment as people recruited in an Islamic way, believe their ideology is aligned with organisational values and feel psychologically and spiritually connected to the organisation. Ali and Amirshahi (2002) also confirmed that regarding career promotion, Islamic principles have considerable influence on managerial decisions in the public sector. Also, they demonstrate that people with broad skills in functional areas have more chance of getting a job as managers prefer to save time and prevent the costs of training. Their research concludes that HRM in Iran still counts as 'personnel management' or 'personnel administration', and the lack of HR policies leads to little attention to organisational efficiency. According to Ahammad (2017, p. 1) 'personnel administration, which emerged as a clearly defined field by the 1920s, was largely concerned with the technical aspects of hiring, evaluating, training, and compensating employees and was very much of staff function in most organisations.' However, the HRM field 'normally focuses on the relationship of disparate employment practices on overall organisational performance or the systematic relationships among such practices.' Ahammad (2017, p. 1)

Namazie and Frame (2007) have also confirmed that HRM is a new subject in Iran compared with Western countries as the first HRM conference was held in Iran in 2003 to raise awareness of the HRM concept. Researchers (Fombrun et al., 1984; Daley, 2012) acknowledged that HRM is a strategic plan for organisations to accomplish competitive advantages, mission, and objectives. Also, Bidmeshgipour (2009) stated that Strategic Human Resources Management (SHRM) has parallel growth in both research and in practice by an HR professional. However, Namazi and Frame (2007) demonstrated that the HRM concept in Iran is confined to administration roles and personnel management. Although the department's name has been changed, the functions within the department have not changed yet. In their

research, although the respondents confirmed the value of HRM and its strategic role in an organisation's development, they believe that the instability of the business environment in Iran influences HRM development in Iran. They believe the emergence of multinational companies and the increase in business competition in Iran has resulted in an urgent to select people with high competency in terms of education and skills.

Regarding Iran's culture, the role of culture in Iranian organisations and Iranian work-related values is influenced by the national culture. Iran is one of the countries that cannot locate clearly in one of Hofstede's cultural dimensions and there is difficulty in clarifying the values (Latifi, 2006). As shown in figure 2.1, which has been analysed by the Hofstede website (2021), almost all of Iran's cultural dimensions are in the mid-points. Long-term orientation is the only dimension that is clearly separated.

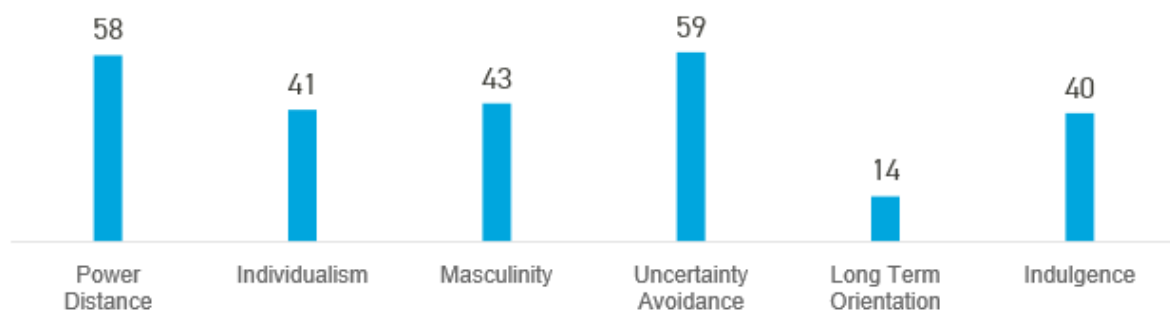


Figure 2.1: Iran's cultural dimensions. Source: adopted from Hofstede website (2021)

Bani-Asadi (1986) stated that the reason for ambiguity of the values in Iran is that Iran is one of the multi-faceted countries where three factors influence the culture including 1) Ancient Iranian culture with about 6,000 years of history which are 'still prevalent in different aspects of Iranian society such as Calendar, New Year Festivals (Nowrooz) and Persian literature' (Bidmeshgipour, 2009, p. 33), 2) Islamic culture with about 1,400 years of history and 3) Western culture with about 200 years of history in Iran.

Jalalkamali et al. (2016) in their research which has been done in international joint ventures in Iran have investigated the relationships between work values, job satisfaction and job performance. They emphasised the importance of job performance as the most important factor for organisations to gain competitive advantages and goals. However, they have not

investigated how to predict job performance and their study has not targeted the recruitment stage. They believe Iranian values are based on Islamic values and if personnel managers recognise those values, they can apply more effective HR strategies to enhance job performance. Also, Khorassani (2012) and Jalalkamali et al. (2016) suggest effective communication satisfaction is another factor in the cycle of achieving high-quality job performance. However, they have not mentioned any effective factors that should be applied in the recruitment process. Jalalkamali et al. (2016) have investigated that job performance is composed of an individual's behaviours which has a potential impact on task performance (overall job performance) and contextual performance (citizenship). Despite their comprehensive research on job performance cause and effect, they have not mentioned any point of the hiring process and have not looked for the source of the issue.

Budhwar and Mellahi (2016) have mentioned in their book, that some Iranian public sectors apply psychometric tests and ideological tests to assess an individual's Islamic beliefs. However, it is not used to assess if their personality fits with the job. However, a question arises here how Western psychometric tests can analyse the Islamic values of people? Unless Iranian occupational psychologists have prepared the tests based on their own knowledge and experience which have not been mentioned or found in any paper and research. They also believe it is not possible to develop Iran's HR systems without making institutional reform. However, they have not investigated which institutional reform is problematic for implementing proper HR strategies. They also mentioned the challenges encountered by HR departments including brain drain¹⁷, inflation and unstable economic conditions which have caused by sanctions. Soltani (2010) in his research stated that one of the development factors of Middle Eastern countries like Iran is to implement HR policies to retain employees, especially since the research by Harsion (2007) reports that Iran has the highest rate of brain drain. Also, according to Psychogios et al. (2016, p. 8), 'the more organisations develop their international operations, the more they adopt and use formalised HRM policies and practices as a response to the increased complexity of operating across national borders', however, the issue of sanctions imposed by the USA do not let Iranian organisations develop their strategies internationally which has affected on developing their HR policies too.

¹⁷ According to Gibson and McKenzi (2011) brain drain is a country's serious loss in terms of highly skilled and knowledgeable people who emigrate to other countries.

Further research by Shokohyar et al. (2017) investigated the failure of performance appraisal systems in Iranian organisations and confirmed this failure as one of implementing HR systems creates financial costs and enhanced stress of working and results in a negative attitude towards organisational policies. They mentioned that organisations perform a performance appraisal system without considering their fitness level. However, this paper also has not mentioned how to predict performance in the hiring process. They have not mentioned and looked for how to avoid and prevent the problem rather than solve the problem. Shiri et al. (2013) in their study investigated the factors affecting job satisfaction. However, none of the factors relates to an individual's personality job fit. Shafiabadi (2005) stated that job satisfaction happens in three categories of occupational (payment, promotion etc.), environmental (working condition, etc.) and personal (personality, age, sex, marital status, etc.). However, he has not mentioned how to measure satisfaction.

Memarzade and Mehrnia (2007) in their research emphasised the necessity of studying personality job fit in high-risk jobs. They believe low job performance is caused by the individual's personality not fitting with the job role specifications. Although most of the researchers as stated in the last sections demonstrated that it is not easy to recognise an individual personality initially, they believe personality is easy to find out through the first talk on the phone. However, they believe in high-risk jobs like the military of Iran, there needs to be a personality test in the hiring process. They have not mentioned the importance of implementing the PATs in any other section.

Faraji et al. (2016) in their research demonstrate the necessity of predicting job performance through employees' personality traits, however, they have not mentioned if it is possible to implement PATs in the recruitment process of Iranian organisations. Their findings show that the target personality types link directly to individuals' performances.

Mirsepasi (1999) in his study emphasised the necessity of applying PATs, however, has not mentioned how to implement them. He mentioned PATs need to be assessed before students choose their university field of study. Adib haj Bagheri and Dianati (2005) have studied why nurses in Iran leave their job after a while and they found that as they start their job as hospital-based nurses, they understand their personality does not fit with the job role. So, they believe PATs should be before students start their university courses to choose their future careers. Eje'ei (2010) investigated that there is a link between an individual's

personality and job performance however he has not mentioned how to find out and assess a personality fit with the job role. Ghorbannejad and Esakhani (2016) in their study demonstrated that there should be PATs in the hiring process to assess individual traits as they believe employees' engagement needs certain traits which should be analysed before employment. However, the paper has not discussed Iran's HRM gap in implementing PATs at the recruitment stage.

Bartsch (1971) did a study in 1966 (12 years before Iran's Islamic revolution) in Iranian industry (23 factories) to find out the problems of recruitment. He believed the problems originated from two reasons. First, is the shortage of skilled workforce and technicians. Second, is the lack of knowledge of industrial owners and managers in knowing the right selection process. For example, his observation demonstrated that all the workers were just employed by recommendations and family relationships and only job vacancies for the professional people and technicians' managers advertise in newspapers. His study demonstrated that this type of recruitment causes problems with workers' productivity and the standard levels of Iranian workers' productivity were lower than similar industries in the United States, Europe and Japan. With the poor knowledge of managers about labour productivity, managers could not trace, and measure the workforce's productivity and resulting in a lack of change and improvement. He confirmed that there were still factories with qualified and experienced managers however they experience difficulty in recruiting a highly skilled workforce and labourers. His research demonstrated that workforces were satisfied to work with low amount of wages and did not know what type of skills they need to grow and develop in their field.

Researchers (Namazie and Frame, 2007; Yeganeh and Su, 2008) in their study demonstrated that although managers in Iranian organisations are aware of the influence of training employees' work performance development, however, HR departments are devoid of applying modern HR practices and it seems HR managers do not have adequate authority and knowledge of HR for this critical role. They believe these problems cause high levels of employee turnover in Iranian organisations. Also, Karatepe (2013) by his research and gathering data from 174 employees in the Iranian hotel industry confirms the fact that there are poor human resource management practices in his data findings. However, his finding demonstrates that frontline employees are more embedded in their jobs and there is less

intention to leave the organisation. All the studies about Iran's HRM and recruitment process are highlighting the problems in organisations because of poor HRM systems, lack of HR departments, the employees are not motivated, and the job performance is low, but no article looked for the main problem which is caused by inappropriate recruitment as the early steps of the organisation and what kinds of PATs have been used at the recruitment stage of Iranian manufacturing companies. The article's findings show that even if people in organisations have a high amount of salary, they still have low motivation.

2.9 Summary and Research Gap

This chapter provided a literature review in five major parts including recruitment, selecting the right person, personality, PATs (Personality Assessment Tools) and exploring the concept of HRM in Iran. This literature review's purpose was to understand the Iranian HRM system and how they measure the personality of people at the recruitment stage to achieve person-job fit. Up to May 2021, among 30 studies that had research regarding Iranian organisations' HRM conditions, 8 studies have discussed briefly that the application of PATs might be effective in Iranian organisations (chart 2.1). These studies including their research gaps are listed in table 2.7 in order of the most recent ones. The other 22 studies were related to other issues of HRM rather than applying PATs.

Chart 2.1: The percentage of available papers (30 papers) about the subject of HRM and PATs in Iranian organisations

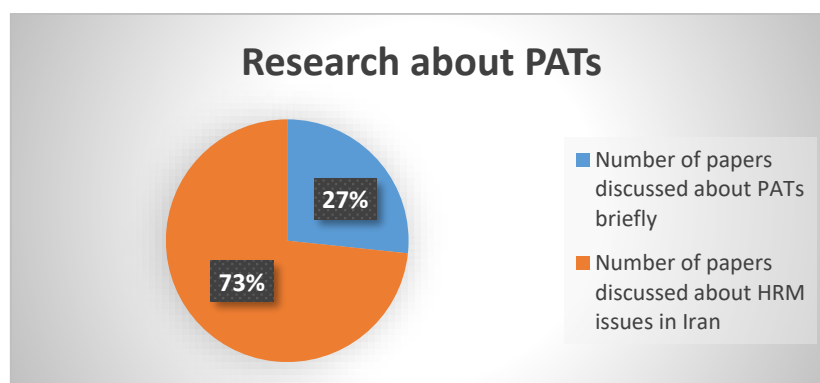


Table 2.8: The studies regarding the application of PATs in Iranian organisations

Researchers	Comments	Research Gap
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Budhwar and Mellahi (2016)	They have mentioned briefly in their book, that some Iranian public sector organisations apply psychometric tests and ideological tests to assess an individual's Islamic beliefs.	The book has not discussed why and when the psychometric tests were used.
Faraji et al. (2016)	They demonstrated the necessity of predicting job performance through employees' personality traits. Their findings show that the target personality types link directly to individuals' performances.	They have not discussed if it is possible to implement PATs in the recruitment process of Iranian organisations and what kind of PATs would be effective to use.
Ghorbannejad and Esakhani (2016)	They demonstrated that the lack of work engagement in Iranian organisations is the lack of using personality measures such as conscientiousness traits, and general self-efficacy as employees' selection criteria.	They have not discussed how to measure personality criteria and what personality assessment tools would be effective to measure the personality criteria.
Eje'ei (2010)	He demonstrated that there is a link between an individual's personality and job performance.	He has not discussed how to find out and assess a personality fit with the job role.
Memarzade and Mehrnia (2007)	They emphasize the necessity of studying personality job fit during the hiring process in high-risk jobs like the military.	They have not discussed the importance of implementing the PATs in any other job and have not mentioned what kind of PATs would be effective to implement.
Adib haj bagheri and Dianati (2005)	They discussed that there should be PATs for students before they choose their university study field to choose their future pathway. They made research into why nurses in Iran leave their job after a while and the result showed that their personalities were not fit with the nursing job roles.	They have not discussed what kind of personality tests would be effective to be able to predict suitable students' future jobs.
Shafiabadi (2005)	He demonstrated that there are three categories of job satisfaction which of them is the personal category (personality, age, sex, marital status, etc.).	He has not discussed how to measure satisfaction based on personality.
Mirsepasi (1999)	He demonstrated that personality testing alongside considering IQ, aptitude, interest and skill are effective in job fit and career success which has not been emphasized in most of the hiring processes in Iran.	He has not discussed how to implement the PATs and what kinds of PATs would be effective to use.

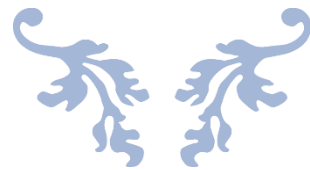
Existing research makes important contributions to understanding the effectiveness of applying PATs at the recruitment stage in Iranian organisations. It clearly indicates that the development of applying PATs is an important aspect of HRM which has a major impact on

individuals' job performances and the organisation's productivity. It sheds light on the reasons why the majority of the attempts to recruit the right person are not always successful and suggests some key personality-related factors that might overcome poor recruitment decisions. The research regarding recruitment and the effectiveness of applying PATs has demonstrated various viewpoints. However, there was inadequate research to provide insights on Iran's HRM system and Iran's HR strategy regarding applying PATs in organisations, especially in the context of recruitment. However, the articles related to Iran's HRM system explored that the main challenges of organisations are HRM and the lack of a strategic plan. So, we understand little about Iran's HRM strategic plan and recruitment processes. There is no evidence to demonstrate the existing PATs which were discussed in this chapter have been implemented in Iranian organisations' recruitment system and there is no evidence of how Iran's HR practices changed over time and how Iran's HR system applies various strategic directions in response to the change in the business environment. Accordingly, we have not understood how Iranian HR managers recognise if an individual's personality fits with the job roles and if this is an important factor to Iranian recruiters. In other words, the dynamic interaction of Iran's HR system with both internal and external business environments are the missing elements in Iranian studies. Although some researchers acknowledged the importance of reviving Iranian organisations' HR systems through the renewal, development and adaptation of new HR strategies, however, they have not mentioned a fixed or an alternative strategic plan to overcome this situation. So, the literature review indicated inadequacies and shortcomings in Iran's HRM policies and practices in research and practice and more research are required to gain a better understanding of Iran's HRM system and HR people's perceptions in applying HRM plans to keep pace with rising trends in modern HRM. The next chapter will discuss the design of the research study to address the research gaps and answer the research questions.



CHAPTER THREE

RESEARCH METHODOLOGY



3.1 Introduction

The purpose of this chapter is to explain and justify in detail the research methods which were employed to conduct the research and how the methodology was implemented efficiently to address the research questions. This chapter comprises four main sections.

The first section (3.2) discusses the research process through a progressive focusing model.

The second section (3.3) describes the selected research philosophies and approaches and explains the main research paradigm, which is significant for this research. Also, distinguishing between deductive, inductive and abductive research approaches and state and justify the research epistemological and ontological positions. Also, my professional background in the manufacturing sector as an EFQM¹⁸ project manager, in which HRM was included, probably influenced several stages. This will be discussed later in section 3.3.2 (epistemological perspective).

The third section (3.6) formulates the data collection method through semi-structured interviews undertaken by the researcher, the suitable sampling technique relating to this research, the interview protocol and design, the rationale for selecting participating organisations, and the rationale for selecting interviewees.

The fourth section (3.7) demonstrates the research data analysis, sorting of the data and the stages of the template analysis process with the aid of NVivo.

Section A

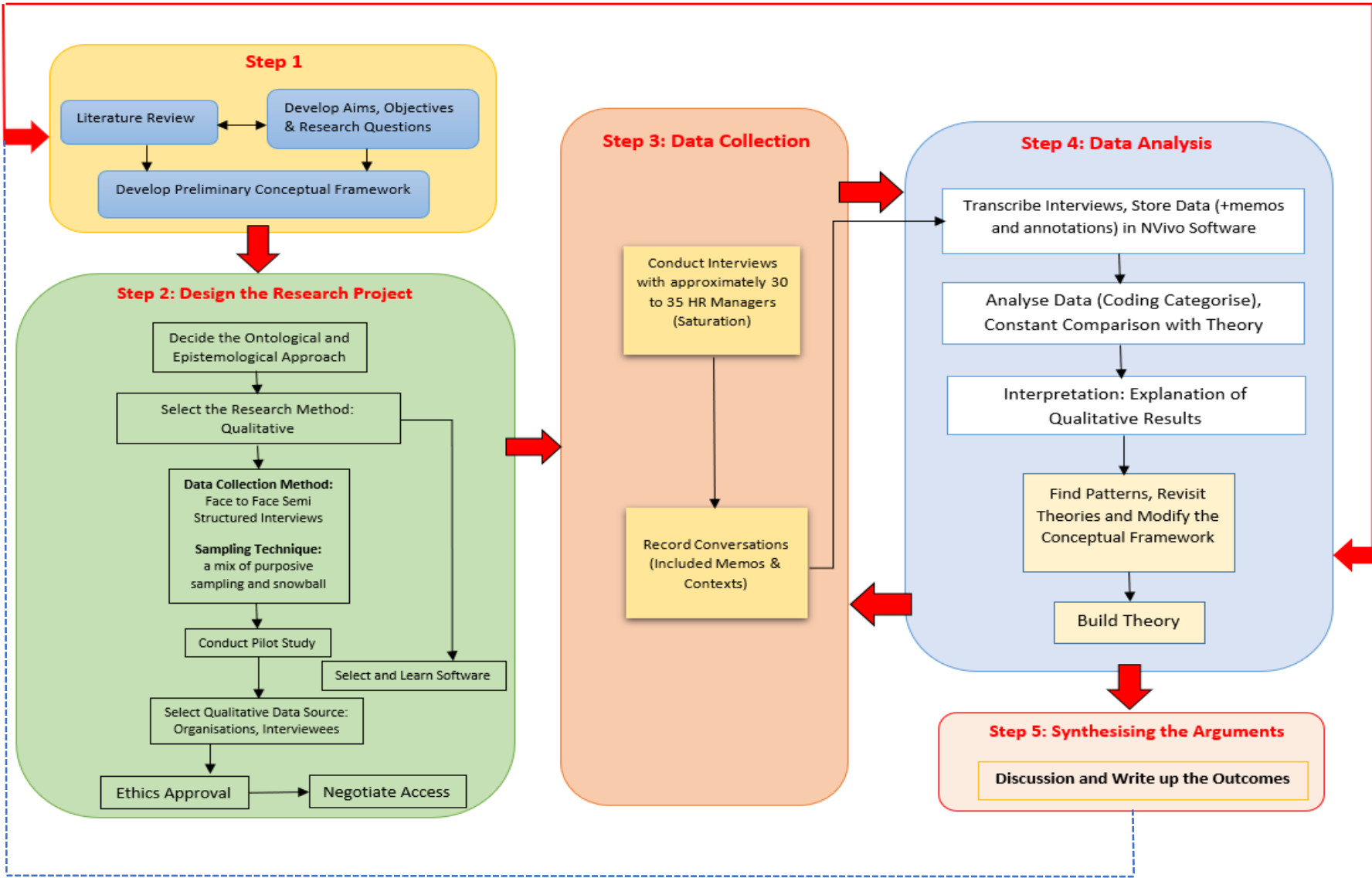
3.2 The Research Process

To report and depict this qualitative research as a cyclical and non-linear process, a model of ‘progressive focusing’ by Sinkovics and Alfoldi (2012) has been adopted. The circular nature of this model helps in facilitating and empowering the complexity of conducting qualitative research. Diagram 3.1 shows this research by adopting the ‘progressive focusing’ model has been conducted in five main steps. The key aspects of conducting this model are to make a ‘cyclical interaction between theory, data collection and data analysis’ (Sinkovics and Alfoldi, 2012, p. 19). Synthesising and repeating the steps continue until the researcher saturates the gathered data through literature review and data collection to analyse the data and move forward to step five. The first step of diagram 3.1 indicates the preliminary conceptual framework, which focuses on the literature review. In the second step, the research project

¹⁸ The European Foundation for Quality Management is a management framework that supports organisations in managing change and improving performance. (EFQM, 2021)

design outlines the action plan that encompasses the total pattern of collecting, measuring, analysing and interpreting data. The third step indicates the qualitative data collection through interviews. Step four represents how the research methodology generated the results by sifting, coding, interpreting and transforming collected data in step three. Step five is to discuss and write up the outcomes that indicate the importance and relevance of the results by explaining and evaluating the literature review and primary data collection to answer the research questions and get a conclusion.

Diagram 3.1: The research design is based on the progressive focusing model, adapted from Sinkovics and Alfoldi (2012)



Section B

3.3 Research Philosophy

As Saunders et al. (2019) claim, there is no superior research philosophy, and the way we choose to do our research depends on the research questions we are seeking to answer. This research needs to address two major philosophical concepts, including ontology and epistemology.

Mason (2017) proposes the ontological perspective is concerned with the nature of reality and how the world operates in two aspects of objectivism or subjectivism. Regarding Saunders et al. (2019), objectivism represents the idea of social entities independent of social actors, and everything is measurable. Subjectivism represents the idea that social entities and phenomena are created from social actors' perceptions and the effects of their consequent actions. In subjectivism, individuals attach meanings to social phenomena.

Epistemology, as the other research philosophy concept, is what we consider and accept as evidence and knowledge of things in the social world. Epistemology reflects four approaches: positivism, realism, interpretivism and pragmatism. Under the positivist construct, only observable phenomena (e.g., earlier researchers' resources, physical evidence) lead to credible data and relate closely to natural and physical sciences. In positivism, researchers rely on deduction and quantifiable observation and hypotheses to achieve statistical analysis. In the realism (opposed to idealism) perspective, researchers argue that what they sense is a reality, not the human mind, and reality is independent of the mind. There are similarities between positivism and realism. The similarities to positivism are that both agree on the physical and tangible evidence as representations of what is real. Interpretivism argues for the critical role of humans as social actors. This construct indicates that humans interpret phenomena and give meaning to them. Pragmatism philosophy contends that the ideology is nearer to a truth that works satisfactorily and successfully in controlling and predicting our world. Pragmatism ideology does not admit to adopting one position and admits to adopting variations between epistemology, ontology and axiology to answer the research question. This ideology is highly appropriate for researchers who apply mixed methods. (Saunders et al., 2009; MacIntosh and O'Gorman, 2016)

3.3.1 Ontological perspective

The literature review chapter demonstrates the main area and focus of this research is HRM and consequently people. In the HRM field, people have a significant role in organisations. Regarding the research questions that focus on people's personalities, the objectivist approach is not the appropriate ontological philosophy as it claims this approach is independent of social actors (Brewer, 2000). However, as discussed in chapter 2, personality is a feature or quality belonging to a person which causes different actions among individuals. So, subjectivism is the appropriate approach to this study to understand the subjective reality of not only HR managers' perception in the selection process based on personality criteria but also employees' values, motives and personality fit with the job they choose to apply for. Also, regarding the importance of studying culture in applying PATs, the subjectivist viewpoint confirms the impact of individuals' behaviour, values, beliefs, language, and norms that attach meanings to cultures. Therefore, ontologically, this research sees humans and their mindsets as the main players and something which is not tangible.

3.3.2 Epistemological perspective

With regard to the positivism, realism, interpretivism and pragmatism positions in the epistemology approach, this research does not adopt positivism, realism, and pragmatism approaches as this research is conducted with people rather than objects. (See table 3.1)

To explore how HRM works in Iran to answer the research questions, this research requires the use of in-depth interviews to obtain rich insights regarding complex issues such as personality in the Iranian HRM system because there is a lack of secondary data about Iran's HRM situation and specifically applying PATs at the recruitment stage. It follows the interpretivist approach to understanding the personality criteria, which are not readily observable and measurable at the recruitment stage. With a professional background in HRM, I interviewed HR managers, understood the differences between workforce personality traits, and interpreted the interviewees' social roles with my own set of meanings and assumptions. So, my observation enabled me to excavate and construct knowledge and data, acknowledge

my assumptions and demonstrate reflexivity¹⁹ in this research (Finlay, 1998 and Mason, 2017).

Although there was a core number of questions in the interviews, the sequence of each interview had a unique flow based on the responses. The significant aspect of the interpretive approach is the researcher 'see people, and their interpretations, perceptions, meanings and understanding as the primary data source' (Mason, 2017, p. 56). So, applying the interview method by interpretivism approach can support this study to reach credible data.

Table 3.1: Research philosophy incompatibility rationalisation

Research Philosophies	Incompatibility Characteristics with this Research
Positivism	This research is in the social science field and does not adopt a stance of natural science. In this research, there is no existing theory in Iran's HRM field about applying PATs at the recruitment stage to develop and test hypotheses. Also, this research has not been done in a value freeway as the researcher's feelings and own perception of interviewees' responses are part of the data collection process.
Realism	This research exists dependent on the researcher's thoughts, beliefs and knowledge. There is no use of senses and no physical properties to help the researcher to gather information about Iranian organisations' recruitment systems.
Pragmatism	The philosophical concept of this research cannot be tested via scientific experimentation as this research contributed directly to social science and adds value to the HRM field. 'Personality' is not just a general term or does not just inherent a meaning, but it is about how it makes differences among human beings and causes

¹⁹ According to Saunders (2019, p. 7), 'to understand your research philosophy, you need to develop the skill of reflexivity, which means asking yourself questions about your beliefs and assumptions, and treating these with the same scrutiny as you would apply to the beliefs of others.'

	different behaviours. This research does not intend to apply personality assessment tools at the recruitment stage, so there is no practical situation to test if PATs cause personality-job fit.
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3.4 Research Method: Selection and Justification of Data Collection and Analysis Methods

The research approach is often based on three reasoning approaches: inductive, deductive and abductive. A researcher using the inductive approach begins with collecting data relevant to the research topic and by achieving data saturation²⁰, looks for patterns to analyse data and develop a theory. So, this approach is the general level of focus and makes a broad generalisation from specific observations. Researchers apply inductive approaches when there is a research gap and no premise and hypothesis. A researcher in the deductive approach follows sequential stages in research to progress to test a theory. In the deductive approach, a hypothesis is developed from earlier literature, and in contrast, the inductive approach moves from a general level to a more specific one. A researcher adopting an abductive approach starts to analyse previous research and explain the conclusion by a set of known premises which are nearly sufficient to be considered for a conclusion. So, in the abductive approach, there is an incomplete observation in which, by making logical inferences, the researcher gets the best prediction. (MacIntosh and O’Gorman, 2016; Saunders et al., 2019)

In congruence with the employed philosophical approach of interpretivism, this research undertakes an inductive approach in which qualitative data through semi-structured interviews will be collected by the researcher, and theory will be developed by data interpretation. The strength of the inductive approach in the HRM field as a social science is to link cause and effect by understanding and interpreting the human social world (Anderson, 2013). By applying an inductive approach, this research begins with a specific and detailed observation of HR conditions in Iran and subsequently recruitment process issues regarding

²⁰ According to Saunders et al. (2019, p. 266) ‘research textbooks simply recommend continuing to collect qualitative data, such as by conducting additional interviews, until data saturation is reached: in other words, until the additional data collected provides few, if any, new insights.’

using PATs. In this study, the researcher aims to generate the meaning of collected data to identify patterns and relationships between the impact of applying PATs at the recruitment stage and personality-job fit. Since the research is exploratory, there were no initial hypotheses generated in this research as I was not sure about the type and nature of the research findings until the study was in progress.

3.5 Research Design

The general plan of this research to answer the research questions is to identify research objectives derived from research questions, specify the sources to collect the data, the method to collect the data and choose the proper method to analyse the data. To achieve coherence in this plan, first required to find out the nature of this research purpose. The purpose of research is classified into threefold: explanatory, descriptive and exploratory.

According to Saunders et al. (2019) and MacIntosh and O’Gorman (2016), explanatory research explains the relationships between variables which is mostly through quantitative data collection to address a research gap. The descriptive method describes and portrays a situation or persons that are being studied. The focus of descriptive research is mainly on ‘what’ rather than ‘why’ by viewing or recording phenomena. For example, to observe a situation for gathering statistical analysis of a population. According to Robson (2002, p. 59), ‘an exploratory study is a valuable means of finding out ‘what is happening; to seek new insights; to ask questions and assess phenomena in a new light.’

With regard to the mentioned definition and since the literature was insufficient in answering the research issues, this research uses an exploratory approach. The conceptual framework developed from the literature review guided this research into an exploratory approach. So, to clarify the understanding of the problem, the exploratory study can be a valuable means to find out what is happening in Iranian organisations’ HR systems and seek new insights into their recruitment processes. The adopted research purpose is first through review of the literature regarding HRM, recruitment, PATs, cultural issues and Iran’s HRM system. Then, identifying the gap in the literature continues with collecting data by interviewing HR experts. According to Denzin and Lincoln (2011), choosing a research strategy is how we link our

research philosophy and research methodology to collect and analyse data to answer our research questions.

According to Saunders et al. (2019), four research strategies including action research, ethnography, case study and grounded theory, are principally linked to qualitative research design. However, based on the nature of this research, action research, ethnography and case study strategies do not relate to this research approach which is explained below. As a result, an inductive approach with a combination of exploratory interviewing and grounded theory is considered as an appropriate research strategy for this research.

Although some aspects of the grounded theory strategy are involved in this research process, this research does not follow a pure grounded theory method as in grounded theory, data collection starts with observation, and the observed data will be tested in later observation, and the importance of initial literature review and theoretical framework has been denied (Glaser and Strauss, 1967). However, this research considered the literature review in the HRM field, and as mentioned in section 2.1.1, the subject of PATs has been discussed since the 8th or 9th BC.

The aspects of the grounded theory which have been considered in this research are that the theory is developed from data generated by a series of observations in the interviews, as the data collected from interviews did not only include questions and answers between the interviewer and the interviewees but also the researcher sought to understand the working environment of HRM departments by attending their workplaces in the manufacturing sector. To develop and build a theory, observing the working environment of HRM departments was particularly helpful for this research to explain several behaviours and issues raised in the literature review about the problems of the HRM system and policies in Iran. For example, the existence of an administrative office board instead of the HRM board and the lack of recognition of the human resource department in one of the organisations confirmed some data in the literature review. The other aspect of grounded theory in this research was the data collection process (interviews) which started without forming an initial theoretical framework, and there was no theory testing. The data gathered through interviews were then interpreted by the researcher to develop a theory.

Ethnography is not an appropriate research design to answer these research questions. Because in ethnography, the researcher lives amongst the sampling group as the primary source of information to observe and talk to them to produce data, including their thoughts and shared beliefs (Mason, 2017). The considerable amount of time required to spend in the Iranian organisations to observe their HR details and gather information was not possible and did not match with the period of the registration of this PhD study. Also, this research required asking direct questions from interviewees to find out the HR managers' perceptions and knowledge of PATs which was not possible only through observation.

Action research was not chosen for this research as in action research, the researcher is looking for solutions for an organisational problem, and the researcher is participative and collaborative in finding solutions. However, regarding this research, the causes and problems of Iran's HR system and recruitment processes have not been identified yet. So, it is not possible to produce practical outcomes through action research. According to Greenwood and Levin (2006), the researcher's participation and collaboration are critical components of this research strategy to improve the situation. However, as the researcher, I was not a member of any organisation to cooperate, and I was not allowed to use their existing data.

Also, this research did not follow the case study method as a single case restricts the sample and could not demonstrate and generalise the Iranian recruitment system (Bryman, 2003). Applying the case study method for this research could not relate the findings to a broader concept as each organisation had a unique HR strategy and recruitment process, and HR managers' mindsets varied from organisation to organisation.

As this research investigates the gaps in Iranian organisations' recruitment systems and considers the personality criteria in selection, it requires interview-based research to gather credible and trustworthy data by asking unambiguous questions to which interviewees are willing to respond. Among the different types of interviews, semi-structured interviews were chosen. Although these interview questions were organised in advance, a structured interview was not chosen as this method is primarily appropriate for quantifiable data and quantitative research interviews and flexibility and freedom of prioritising questions based on each organisation's HR system performances were needed. Also, an unstructured interview was not chosen as I was not sure if the interviewees were aware of PATs to provide me with complete and rich answers. So, I needed predetermined questions to address my

research questions, and an unstructured interview has not had any predetermined list of questions. However, I needed a predetermined list of questions to guide the conduct of the interview. Also, a focus group interview was not chosen as the nature of this research required asking each individual's perception, knowledge and experience of recruitment one to one and face to face. According to Saunders et al. (2019), focus group interviews focuses clearly on a particular issue; however, the cause of the problems in the Iranian human resources system, specifically at the recruitment stage, was not clear and each organisation needed a separate interview. A Focus group might represent a small sample size but for this research, a lack of data in the literature review about the Iranian recruitment system needed in-depth investigation in plenty of manufacturing organisations.

Section C

3.6 Data Collection Method and Semi-Structured Interviews

Face-to-face semi-structured interview as a technique was used to collect primary data for this research. This method seeks to make sense of Iran's recruitment processes as a complex situation in the HRM system in Iranian organisations to answer clearly the defined questions (Anderson, 2013). As the interview is an interactive human encounter (Radnor, 1994), by applying this method, I could seek information that was supplied by Iranian organisations' HR and personnel managers as the rich source of information who were engaged and aware in all stages of recruitment. According to Anderson (2013), by adopting qualitative data in an organisational context, a rich picture of the organisation's processes will be explained, and an understanding of the issues.

The questions were known in advance, but the order varied depending on the flow of the interview. So, in a few cases, some questions were omitted, and some additional questions were required to be asked. This process varied from interview to interview. The flexibility in the way I asked the questions provided me with some new aspects or issues raised from the interviews apart from the studies I had on literature review.

A list of themes and questions was covered in the interviews to build up a picture of what is happening from the perspective of Iranian HR managers. I, by active listening, involved myself

in their conversation to persuade respondents to provide me with more information. However, the involvement did not include me giving my opinions. For example, by saying 'if I understand you correctly, you are saying ...' or 'so, you think HR departments need to build up a new strategic plan to ...' or 'tell me more about ...'. Also, by short follow-up statements like 'that's interesting' or 'really?'

3.6.1 Sampling

Several sampling techniques used in qualitative research were reviewed, including snowball, convenience, purposive, quota, extreme or deviant, etc. (Mason, 2017) and ultimately, a combination of purposive and snowball sampling techniques have been chosen for the following reasons.

I chose HR managers as my sample. The reason for selecting the purposive technique was I believe HR managers are the most specialised, proficient and well-informed people in the recruitment process, and they are responsible for recruitment in organisations. According to Anderson (2013, p. 226), 'purposive sampling involves choosing people whose experience and perspectives are deemed to be important to the investigation.' By purposive sampling technique, I chose HR managers as people who can and are willing to provide the information by knowledge or experience. In addition to knowledge and expertise, the availability and willingness to participate and the ability to communicate experiences and opinions in an articulate, expressive and reflective manner were considered too.

The reason for choosing the snowball technique was the lack of secondary data. By mixing this method with the purposive technique, there is an ability to find hidden populations who are well informed about my research questions, and I reached more people who could help me gather rich data. The willingness and enthusiasm of some interviewees to make an effective change in Iran's HR system by introducing me to other HR managers built up a network of professionals who work in the HR field and by sharing their experiences provided me with new insights which were not found in literature review studies.

3.6.2 Interview protocol and design

According to Frechtling (2002), to have a successful interview, careful preparation is required to enhance the credibility of the data collection process. So, by considering the existing literature review, research questions and conceptual framework, a high level of careful attempt was conducted to overcome data quality issues. As demonstrated in appendix 3.1, the interview questions consist of two parts. The first part included organisations' background information, conditions of the organisations related to HRM and an overview of the recruitment process. The first part helped me to sort out the sequence of questions. For example, if HR managers in explaining the recruitment process demonstrate the existence of applying PATs, questions like 'are you aware of personality tools?' would be omitted.

The second part was set based on the three research questions and their sub-questions to narrow the answers and get further information, explanations and probe answers. Also, each interview was finished by asking five yes/no (closed) questions to ensure that all the questions related to the themes were covered and to confirm their opinion on specific information. A pilot study was conducted by interviewing five HR professionals to test the questions and interview process, the allocated time for the interview and to minimise respondents' problems in answering the questions. For example, although questionnaire and consent forms were sent to interviewees a month before the interview with all details of the research aim, after the pilot study, I understood that I had to allocate about 5 to 10 minutes at the beginning of the interview to explain the research aim and purpose to ensure that they have a good understanding of this research subject to provide me rich and comprehensive information which has an impact on research outcomes.

Two separate letters, including an invitation letter and consent form (see appendix 3.2), were sent to the interviewees before each interview. They signed and returned the consent forms through email to me. The consent form included the information for the participant, the research purpose and main questions and a contact list of supervisors if anyone wants to get further information regarding the interview.

In regard to the appropriateness of the interview location, I preferred to conduct the interviews in the organisation to have the opportunity to observe the organisational environment and HR managers' reactions to any unpredictable situation that happens in the organisation. Also, if they can supply me with any documentation to support the data and their statements.

3.6.3 Rationale for the selection of participating organisations

The manufacturing sector was selected as the sampling group. The criteria for choosing the manufacturing sector were as below:

1. Based on the insight obtained from the articles related to Iran's HR system, most of their data collection sampling was conducted in the manufacturing sector, and very few of them were in service sectors like healthcare.
2. The number of employees in Iran's manufacturing sector is more than in service sectors, and there is a possibility of more coherence in HR policies and strategies.
3. The organisations in the manufacturing sector compete to achieve quality management certifications such as TQM, ISO and EFQM. These qualifications demonstrate HRM aspects are considered. So, there was a high possibility of accessing the required data. Also, the manufacturing sector is pioneering in the HR field rather than the service sector.
4. Regarding the purposive and snowball sampling technique, I had the experience of working in the manufacturing sector in Iran. So, the possibility of gaining access and arranging interviews with organisations in the manufacturing sector was higher than in the service sector.
5. The manufacturing sector is more challenging in comparison with the service sector as service sectors in Iran have specific hours of working with fixed rules for pay. However, as the manufacturing sector deals with the complicated process of producing products, there are a variety of employees in an organisational hierarchy. For instance, director, deputy director, senior managers, personnel managers, assistants, consultants, workers, experts, administrative staff and so on. Therefore, there was a higher possibility that HR managers in manufacturing sectors have more experience in dealing with employees' problems and regulations.

After determining the manufacturing sector as the sampling group, the researcher selected a list of 35 manufacturing organisations. Among 35 organisations that were invited to participate by sending the invitation letters by email, 30 organisations agreed to participate. However, only 28 of them were included as the data was saturated after 28 interviews, and I reached a point where no new information or new insights were emerging from the data. For

example, one of the questions which were saturated, and no further new information was added after the fourteenth interview was about the main challenges at the recruitment stage as the interviewees mostly confirmed nepotism and lack of knowledge in job candidates as the two main challenges of the recruitment process in Iran. Another saturated answer example is about disadvantages of applying PATs which include 'PATs do not reveal their true selves' or 'it is not possible to measure the complex personality of a person with predetermined and mechanical tests.' Further examples can be provided in chapter four.

So, the data collection stopped when saturation was reached (Richards, 2014). The structure of the interviews was: the introduction, warm-up questions, main questions, and conclusion.

3.6.4 Rationale for the selection of interviewees

Since the main focus of this research is on human resources and exploring the impact of applying PATs at the recruitment stage, I chose HR managers for interviews as I believed they were the most proficient and well-informed people within the recruitment process, and they are responsible for recruitment in organisations. However, among the 28 interviewees, 3 of them were chief executive officers (CEOs) as they preferred to transfer their organisations' information through themselves, and they were pretty aware of the HR process and had more comprehensive knowledge. Interviewing the CEOs as the people who have a bird's eye view of their organisations provided me with a great deal of information with new perspectives about HR issues in Iranian organisations apart from HR managers' perspectives. Also, seven interviewees among 28 were people who had high expertise in the HR field (HR experts and consultants), and they were providing consultancy on HR strategies to various manufacturing organisations. In addition, one of the interviewees among 28 was the head of the cooperative labour and social welfare organisation, where labour law and employment regulations are approved and set by this organisation. So, 18 interviewees among 28 were HR managers in the manufacturing sector. The demographic information of the organisations and interviewees' positions is provided in chapter four, table 4.1.

Section D

3.7 Data Analysis

According to Kothari (2004, p. 372), 'the researcher must pay attention toward data organisation and coding prior to the input stage of data analysis. If data are not properly organised, the researcher may face difficulty while analysing their meaning later on. For this purpose, the data must be coded.' So, to bring order and structure to the collected qualitative data, between two approaches of inductive and deductive, the inductive approach was applied. In the deductive approach, the theory is built prior to data collection (Saunders et al., 2019). As in this research, the topic is new and rich secondary data were not available, so an inductive approach was adopted for this research. However, the literature review was used as the background of the study to build the conceptual framework to guide this research process. An inductive data analysis approach starts by building the theory from collected primary data and finding dominant or significant themes inherent in the primary data. Then by establishing clear links between the research objectives and the findings a model or theory will be developed (Saunders et al., 2019; Creswell, 2014; Yin 2017). With regard to Saunders et al. (2019), the inductively based analytical procedures consist of data display and analysis, template analysis, analytic induction, grounded theory, discourse analysis and narrative analysis. Among these procedures template analysis (TA) along with the application of NVivo CAQDAS (Computer-Assisted Qualitative Data Analysis Software) was used to analyse the qualitative collected data. According to Lewins and Silver (2009), NVivo CAQDAS is useful for non-numerical data analysis processes (qualitative) that have not been quantified. The strength of applying NVivo CAQDAS is to structure the interviews, make a connection to data and interactivity, explore the data by text search tools, the possibility of code, recode and retrieve output data, powerful means for project management and data organisation, facilitating searching and interrogating, recording thoughts by writing memos, comments and notes (Saunders et al., 2019).

Template analysis is a form of thematic analysis and is widely used in organisational and management research (Brooks et al., 2015). The main goal of the thematic analysis is to identify themes (Maguire and Delahunt, 2017). However, it is much more than summarising the data like the 'data display and analysis' procedure which simplifies and condenses the data (Saunders et al., 2019). The thematic analysis considers the main interview questions as the themes, which by considering the flexibility features of template analysis in coding

amendments (deletion, reclassifying, changing the scope of code and insertion of new codes), it is possible to find and introduce new themes and new insights relevant to the research question and add subcategories which emerged from the transcriptions. According to King (2012), template analysis is more flexible than other techniques. For example, in grounded theory, there is a three-level coding hierarchy (open coding, axial coding and selective coding) where a researcher needs to follow the hierarchy; however, through template analysis, there is no restriction for the researcher and provides the opportunity for the researcher to identify new themes and by developing categories more extensively explore an in-depth analysis of collected data. So, the prior themes are the guide to data analysis which might be changed by the template analysis approach (King, 2012). Finally, by identifying patterns and relationships between coded data and organising them in a useful and meaningful manner related to the research questions, the template builds the basis for the researcher to interpret and analyse the data. Also, there is a possibility of revising the template even after the data is analysed carefully. So, the template analysis key features and its epistemological position (interpretivism), as discussed in section 3.3.2, appeared to be the most suitable approach in this research among the other inductively analytical procedures. To follow the definitions regarding the inductive data analysis approach, the below process has been adopted for the research data analysis.

3.7.1 Sorting the data

All the interviews were recorded with the permission of the interviewees. The interviews were conducted from 27th March 2019 to 30th April 2019 in Shiraz, Iran. The interviews lasted between 45 to 120 minutes, with an average of 75 minutes. A considerable volume of data was gathered after 28 interviews. In total, 32 hours and 56 minutes were recorded, and interviews were transcribed soon after each interview. The transcriptions included approximately 95,000 words in total. To make sense of the information, the first step after transcription was to organise the collected data through NVivo. Among the qualitative data analysis software packages, NVivo 11 was used to organise and sort the data derived from interviews. The interviews' transcriptions were added to NVivo sources after listening carefully to the recordings, and then references gathered to the theme by coding sources at the node. So, by opening each node all the references were observable in one place. Twelve general themes from responses were classified in nodes. The themes were built from the

salient information derived from the responses. The prior themes were initially classified based on the literature review findings and research questions. Then after careful listening to the recordings and making notes, the new information which was not found in the literature review was highlighted, and the new themes, superordinate themes and subthemes emerged in data coding. This process was completed for all 28 interviews.

3.7.2 The stages of the template analysis process with the aid of NVivo

As discussed in the previous two sections (3.7 and 3.7.1), the first step of analysing data after finishing the data collection (interviewing) was transcribing and translating the interviews from Persian to English. All 28 interview transcriptions were read carefully and double-checked with the recorded audios to gain a general sense of the data. The second step was the process of coding. The interesting, salient and important features related to the research questions in the interviewees' responses were highlighted as the codes (this is an inductive approach, so the researcher did not start with the categories which were already formed). Each code represented the meaning of the highlighted data. Table 3.2 shows some examples of three codes in the research interview responses.

Table 3.2: The research interviews' coding example

Interviewee's responses	Codes
'The job applicants introduce to us through family and friends' recommendations.' (Interviewee 1)	Neopotism and Cronyism
Thirteen interviewees stated that the problem of well-connected people starts when organisations advert for a job vacancy in the local newspaper or on recruitment websites. After that, they receive many calls from people who introduce them to well-connected ones.	Political nepotism or Well-connected
'Some jobs roles specifications like welding require skills and experience rather than personality fitness.' (Interviewee 2)	Personality job fit is not a necessity for all kinds of jobs
'There is a high volume of applications with at least bachelor's and master's degrees. However, during the interview, they could not demonstrate the basic knowledge required for the jobs.' (Interviewee 13)	The mismatch between universities' courses outcomes and manufacturing sector requirements
Interviewee 28 asks several questions during the recruitment interviews, such as	Recruiters identify personality criteria based on personal judgments.

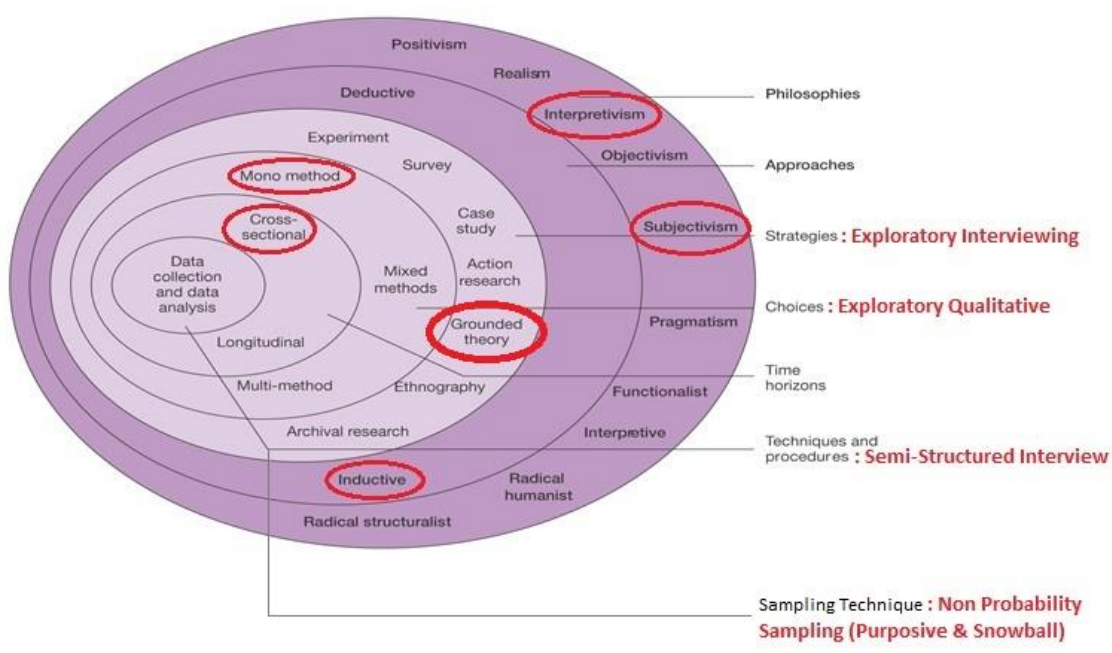
<p>'what are your personal studies subjects' or 'how many friends do you have?' If the job candidate answers, I have old friends from thirty years ago and am still in contact with them; this means the person has high public relations. Interviewee 10 stated that in job interviews, he asks the job candidates, 'how do you spend your 24 hours of a day?'</p>	
<p>Examining the answers of both groups of applying and ignoring PATs in recruitment indicates that the measurement of employees' satisfaction is based on the average number of people leaving the organisation annually (turnover). This means that the lower the number of people leaving the organisation per year, the higher the job satisfaction.</p>	<p>Job satisfaction</p>
<p>7 interviewees (codes 3, 13, 17, 18, 23, 24 and 25) mentioned that the traditional management system has not let them implement strategic HRM. Human resources itself is not a strategy in Iran, and it depends on who is the manager and how much he believes in it.</p>	<p>Traditional management system</p>
<p>Please see table 4.8 which is Interviewees' comments about the impact of sanctions on Iranian manufacturing organisations,</p>	<p>Sanctions</p>
<p>'Strategic HRM has been introduced to Iran for many years but has not been used as a tool, and the justification is that it is not successful. Management is traditional in Iran, and if an organisation succeeds, the manager believes that it is his/her inherent leadership, and that type of management has helped the organisation grow.' (Interviewee 25)</p>	<p>Strategic HRM in Iran</p>

After coding, the next step was to refocus and refine the analysis by sorting the list of codes into some sort of grouping and creating a thematic category (themes). In the final template, the codes are reduced into 10 master themes, 25 superordinate themes and 35 subthemes which can be found in table 4.2.

3.8 Summary of the Chapter

The main purpose of this chapter was to present and select the most suitable and related research methodology which fits this research subject. The researcher presented a detailed ontological (subjectivism) and epistemological (interpretivism) research philosophy, research design (qualitative), approach (inductive), purpose (exploratory), the methods of data collection (semi-structured interview), the sample selection technique (purposive and snowball), the research process (template analysis) and the type of data analysis to outline how this research is to be undertaken. Figure 3.1, which is adopted from Thornhill et al. (2009), demonstrates the research stages used to develop an effective methodology in conducting this research. According to Saunders et al. (2019, p. 136), ‘the research onion as a way of depicting the issues underlying choice of data collection method, research philosophies and research approaches, research strategies, research choices and time horizons.’ The next chapter presents the research findings structured around the three research questions.

Figure 3.1: This figure is adapted from Thornhill et al. (2009)





CHAPTER FOUR

FINDINGS



4.1 Introduction

This chapter presents the findings from the semi-structured interviews that were undertaken with twenty-eight participants by using an inductive qualitative approach. The findings

relevant to the three research questions were extracted from each interviewee's responses. The findings were coded and by applying Nvivo, the master themes, the superordinate themes and the sub-themes were identified. The findings are critically discussed in the context of related literature and theory in chapter five. The key objectives of this research are to determine how much HR managers and recruiters in Iranian manufacturing organisations are familiar with applying PATs at the recruitment stage and to investigate HR managers' perceptions of the effectiveness of applying PATs in the recruitment process. Also, to diagnose the pros and cons of using PATs in Iranian manufacturing organisations and to explore how Iranian manufacturing organisations evaluate criteria of personality job fit with the advertised job roles specifications in recruitment.

This chapter consists of eleven sections and is presented in order of the themes recognised from interviewees' responses through primary data collection (table 4.2). These interview questions attempted to answer the research questions below:

RQ1: How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?

RQ1.1: How do HR managers evaluate criteria related to personality job fit in the recruitment process of Iranian manufacturing organisations?

RQ2: What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

RQ3: Is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?

RQ3.1: How do Iran's cultural issues impact on the application of personality assessment tools in the recruitment process?

The fourteen sections of this chapter comprise: section one (4.1) is an introduction, section two (4.2) demonstrates a general background of the organisations and participants' demographic characteristics, section three (4.3) introduces master themes, superordinate themes and subthemes, section four to section thirteen (4.4 to 4.13) demonstrate and explain the ten themes in detail, and section fourteen (4.14) is the summary of this chapter.

4.2 Participants' Demographic Characteristics

Twenty-eight manufacturing organisations that convert raw materials or components into finished products to meet the expectations and demands of customers were chosen for inclusion and took part in the semi-structured interviews, which were held between March 2019 and May 2019. The organisations that participated in this research were in Iran's manufacturing sector (see appendix 4.1: background information of the participating manufacturing organisations). The rationale for choosing the manufacturing sector was explained in Chapter Three, section 3.6.3.

Table 4.1 sets out the general background of the participants to provide the perceptions of respondents based on their field of experience and knowledge to answer the research questions. Although the participants allowed for their names to be presented, the interviewees' names are coded to adhere to ethical principles of anonymity. During the process of research findings and analysis, they were called by their codes (codes 1 to 28).

The nature of the manufacturing organisations included in both the public and private sectors. The public sector organisations are owned and operated by Iran's government and some parts of their budgets are provided by the government. Also, their shares are sold to the public in the stock market. Private sector organisations are those that have private investors or family businesses, and they are not publicly traded on a stock exchange. Their budget is provided through the amount of sales and profit.

Participants possessed a diverse range of academic qualifications at the university level. Interviewees' qualifications could be categorised as HRM, engineering, management, accounting, and other fields of study. Among three CEOs, two of them (interviewees 1 and 2) studied in the engineering field and one of them (interviewee 21) in the management field. Among seven HRM consultants, two of them (interviewees 23 and 27) studied engineering, one of them (interviewee 22) had studied HRM, three of them (interviewees 24, 25 and 26) studied in the management field and one of them (interviewee 28) studied in the economy field. Among 18 HR managers, interviewee six has specifically studied in the HRM field with the degree of PhD, interviewee 8 studied accounting, interviewee 16 studied English language translation, interviewees 3, 4, 5, 9, 10, 11, and 20 studied in the management field, and interviewees 7, 12, 13, 14, 15, 17, 18, 19 qualifications are in engineering fields. As a result,

this finding demonstrates that of 25 HR managers and HRM consultants, only 2 of them had studied in the HRM field.

Table 4.1: Participants' demographic characteristics and general background of the organisations

Code	Organisation Name and Type	Number of Employees	Interviewee's Position	Gender	Qualification
1	Organisation 1, Privately Held	300	CEO	Male	B.Sc. in Industrial Engineering
2	Organisation 2, Privately Held	300	CEO	Male	MSc in Telecommunications
3	Organisation 3, Privately Held	205	HR Manager	Female	B.A in Commerce
4	Organisation 4, Privately Held	650	HR Manager	Male	B.A in Business Administration
5	Organisation 5, Privately Held	950+	HR Manager	Male	B.A in Business Management
6	Organisation 6, Privately Held	100	HR Manager	Female	PhD in HRM
7	Organisation 7, Privately Held	143	HR Manager	Male	MSc in Industrial Engineering
8	Organisation 8, Public Sector	100	HR Manager	Male	B.A in Accounting
9	Organisation 9, Privately Held	2000	HR Manager	Male	B.A in Business Management
10	Organisation 10, Privately and Public Sector Shareholders	7000+	HR Manager	Male	B.A in Business Management
11	Organisation 11, Privately Held	3000+	HR Manager	Male	B.Sc. in Industrial Management
12	Organisation 12, Privately Held	288	HR Manager	Male	B.Sc. in Industrial Engineering and EMBA
13	Organisation 13, Public Sector	1300	HR Manager	Male	B.Sc. in Industrial Management
14	Organisation 14, Privately Held	450	HR Manager	Male	B.Sc. in Industrial Engineering
15	Organisation 15, Privately Held	1800	HR manager	Male	MSc in Industrial Engineering
16	Organisation 16, Privately Held	130	HR Manager	Female	B.A in English Language Translation
17	Organisation 17, Privately Held	121	HR manager	Female	B.Sc. in Civil Engineering and MBA
18	Organisation 18, Privately Held	200	HR manager	Male	B.Sc. in Industrial Engineering and MBA
19	Organisation 19, Privately Held	800	HR manager	Male	B.Sc. in Industrial Management and MSc in Industrial

					Engineering in Systems and Productivity
20	Organisation 20, Public Sector	311	HR manager	Male	MBA
21	Organisation 21, Public Sector	200+	CEO	Male	PhD in Management
22	Various Manufacturing Organisations 22	500+	HR Expert and Consultant	Male	PhD in HRM
23	Various Manufacturing Organisations 23	500+	HR Expert and Consultant	Male	B.Sc. in Metallurgical Engineering
24	Various Manufacturing Organisations 24	500+	HR Expert and Consultant	Male	B.A in Business Management
25	Various Manufacturing Organisations 25	500+	HR Expert and Consultant	Male	Master of Administrative Affairs
26	Various Manufacturing Organisations 26	500+	HR Expert and Consultant	Female	PhD in Strategic Management
27	Various Manufacturing Organisations 27	500+	HR Expert and Consultant	Male	B.Sc. in Mechanical Engineering and MSc in Industrial Management
28	Various Manufacturing Organisations 28	500+	HR Expert and Consultant	Male	B.Sc. in Economics

4.3 Master Themes, Superordinate Themes and Subthemes Identified Following Data Analysis

The identified themes comprised ten master themes, twenty-five superordinate themes and thirty-five subthemes that can be found in table 4.2.

Table 4.2: Master themes, superordinate themes and subthemes developed from semi-structured interviews

Theme Number	Master Themes	Superordinate Themes	Subthemes
1	Shortlisting criteria	No criteria	Nepotism
		Required KSAOs (Knowledge, Skills, Abilities and Other characteristics)	Cronyism

		Required personality job fit	Political nepotism or Well-connected
2	If and how HR managers are familiar with PATs	Familiar	Based on their personal studies
			Based on the organisation's HRM strategy
		Not familiar	
3	PATs application at the recruitment stage	Not applied	Personality criteria have not been considered in interviews
			recruiters identify personality criteria based on personal judgments
		Officially applied	Success
			Failure
Unofficially applied	Recruiters develop tests based on their experiences		
	Recruiters identify personality based on their personal studies of PATs		
4	Interviewees' perception of the effectiveness of PATs on their decision making	HR manager's decision-making with applying PATs	
		HR manager's decision-making without applying PATs	
5	PATs impact on the hiring process	Advantages	An academic basis in the HR system
			Behaviour predictor
			Come to the right decision
			Greater efficiency
			Interview complementary
		Disadvantages	Motivation
			Organisation reputation preventing try and error
			Candidate's resistance towards PATs
			Unreliability including: Cheating, Not 100 % indicate the personality, Concealing the personality, Social desirability
			Cost
			Cultural issues

			Frustrating
			The difficulties in implementing the PATs
			Time-consuming
6	Interviewees' perspective priority in PATs application first or functional criteria first	It depends on the job requirements	
		functional 1st	
		PATs 1st	
		PATs and functional criteria simultaneously	
7	Person job fit via PATs at the recruitment stage	Moderates	Positive moderates
			Negative moderates
			Neutral moderates
		Opponents	
		Proponents	
8	HR managers' challenges in the recruitment process	Unqualified candidates	Inconsistency between universities' curricula and the manufacturing sector skills requirements
			Political nepotism/ (Forced candidates or well-connected candidates)
			Cronyism
9	Strategic HRM	Yes	Documented but not applicable
		No	Sanction: Financial crisis Unsustainability
			Traditional management system
10	Job Satisfaction	High	
		Moderate	
		Low	

4.4 Theme 1: Understanding the Standard Recruitment Process in Iranian Manufacturing Organisations

The first theme represents understanding the process of standard recruitment, including attracting, shortlisting, selecting, and appointing suitable candidates for the jobs. Also, to find out how the personality can be assessed at the recruitment stage, one of the questions was 'what are the shortlisting criteria?' The 28 responses were categorised into three groups: a) no criteria, b) KSAOs criteria, and c) KSAOs and personality criteria.

The definition of recruitment adapted from Dash et al. (2018, p. 2) is that 'recruitment is the function that deals with attracting, sourcing, screening, and selecting people for a job or vacancy within an organisation.' Since the application of PATs to achieve the person-job fit is part of the recruitment process and due to the lack of literature exploring the process of recruitment in Iranian organisations and regarding this research subject, specifically the manufacturing sector, appendix 4.2 provides the interviewees' responses regarding the overall process of recruitment in their organisations to explore what is going on through their recruitment process and how they select human resources for their organisations. Accordingly, there are seven key findings from the 28 respondents about the standard recruitment process in Iranian organisations. The key findings are as below:

1. The first key finding demonstrates that the initial step of recruitment which is advertising for a job, has the same process for most organisations and it is through local newspapers, social media, the company's website, friends and family's recommendations and recruitment agencies. Only 2 out of 28 responses (interviewees 5 and 11) reported advertising through universities as a source of attracting candidates in addition to the process above.
2. The second key finding is sourcing strategy which is the process of finding the appropriate CVs. The responses demonstrate that HR personnel in most organisations are responsible for sourcing the job applications and selecting the most relevant ones and sending them to the heads of departments. Just one of the responses (interviewee 15) claimed that HR personnel send all the applications to the heads of departments without filtering or censoring. In the end, the head of the department examines who is experienced enough for the next step which is the interview.
3. The third key finding is the strategy of benchmarking policies at the recruitment stage. From 28 responses, 4 of them used benchmarking in the recruitment process and selected Western companies or theories as their role models to improve the standards of their recruitment policies and strategies. Interviewee 1 role model was Berufsschule which is a German vocational school. Interviewee 12 role model was HeidelbergCement which is a German multinational building materials company. Interviewee 27 role models were ABB which is a Swiss-Swedish multinational corporation and Philips, which is a Dutch multinational corporation. Interviewee 28

role model is based on the theories of a Polish university professor who was a lecturer at Shiraz University, Iran.

4. The fourth key finding is the process of attracting new job candidates. Although all the organisations mentioned the necessity of completing job application forms and advertising through newspapers, three responses (interviewees 1, 3 and 16) clearly explained that most candidates were attracted through friends and family members' recommendations. Interviewee 1's concern was the issue of trust. He mentioned that *'we need employees with at least three referees.'* Interviewees 3 and 16 stated that they prefer workers who live near the factory for the reason of distance and commuting cost. So, local people will be informed through word of mouth about a new job vacancy. Interviewee 16 stated that *'the business owner prefers to recruit people from his city because of patriotism to provide jobs for young people and to reduce unemployment in his city.'* So, in the three provided answers, nepotism and cronyism are clearly identified (see table 4.1 for interviewees' job roles level).
5. Among 28 interviews, five organisations (interviewees 1, 3, 16, 17 and 18) have not clearly identified HR as an official department; instead, they use the term an administrative office, which is just responsible for organising employment contracts, and they see it as an admin function. They were familiar with the HRM term; however, they introduced themselves as the head of the administrative office, not the HR managers at the beginning of the interview.
6. The approach and process of screening and selection are not the same among the responses. In some organisations (3, 8, 13, 16 and 17) Knowledge, Skills, Abilities and Other characteristics (KSAOs) criteria are not specifically defined and considered in the selection process and the interview panel's list of questions. So, the selection criteria are based on the personal perception or judgment of the CEO or the interview panel. Interviewee 3 stated that *'as this organisation started as a family business, the recruitment was not based on the KSAOs criteria'*. For example, she, as the HR manager, is the sister of the CEO. However, they have asked for HR consultancy to make changes in their HRM system as they face the problem of low-skilled people who have been recruited based on family ratios. Interviewee 8 stated that *'as this company is considered as public sector so Islamic code of conducts is more important for the organisation rather than KSAOs.'* Interviewee 13 stated that *'the HR department has*

not set KSAO criteria and head of the departments who are in engineering fields in manufacturing sectors assess the job candidate's knowledge by using knowledge tests.' Interviewee 16 stated that *'the selection procedure is completely personalised according to the employer who is the business owner too. At the first step of selection, the business owner should meet the job candidates so if you look around the factory, the majority of people's personalities are similar to the employer.'*

7. Regarding determining the required job specifications among 28 responses, three interviewees (6, 11 and 12) claimed that they applied the O*Net method to provide a range of key information for jobs, including the main duties and responsibilities, the level of personal requirements, essential skills and experiences. Interviewee 6 explained that *'O*Net was developed by the U.S. Department of Labour/Employment and Training Administration as the primary source of occupational information. However, it is one of the most helpful methods for Iranian corporations in determining job specifications.'* Other respondents did not mention any formal method and could not explain how they know which job requires what kinds of KSAOs.

4.4.1 Shortlisting criteria subthemes

Table 4.3 categorises and organises the responses to find out shortlisting criteria. The responses which indicate the lack of specific criteria to shortlist a job candidate are categorised as cronyism, nepotism, and political cronyism. For example, interviewee 16 response indicates apparent nepotism as she stated that *'the CEO is the only decision-maker and by an interview decide to hire a workforce, and there are no specific and written shortlisting criteria. Also, he is keener to hire people from his family and city.'* The middle column in table 4.3, which are the KSAOs criteria, indicates the responses which consider only KSAOs criteria to select job candidates. Some responses indicated the formal process of KSAOs testing. The other group of respondents indicated that there are no written jobs that required KSAOs; however, the interviewer knows what to ask based on their experiences and knowledge. The '+Personality' column shows the responses which consider not only KSAOs but also personality criteria should be considered to achieve a personality job fit. These responses are divided into a) the interviewees who apply personality tests as a formal process on the recruitment and b) those who believe considering personality criteria is an important

factor at the recruitment stage to achieve person-job fit, but they do not apply any formal personality test and based on their personal studies they ask some questions in the interviews. The numbers in the table indicate the interviewees' codes.

As table 4.3 indicates, among 28 organisations, 14 of them (50%) do not follow the KSAOs and personality criteria. It means that 50% of the data are clearly engaged with cronyism and nepotism issues.

Table 4.3: Shortlisting criteria at the recruitment stage

Shortlisting Criteria						
No specific criteria			KSAOs		+ Personality	
Cronyism	Nepotism	Political Cronyism	Specified and determine KSAOs by formal tests	Considered but not specified	Formal personality tests	Interviews based on personal studies
16	16	4, 7, 8, 10, 11, 12, 13, 14, 18, 22, 24, 28	1, 4, 8, 10, 13, 18, 19, 21, 25, 27	3, 17	6, 7, 11, 14, 15, 20, 22, 23	2, 5, 9, 12, 24, 26, 28
Total: 1	Total: 1	Total: 12	Total: 10	Total: 2	Total: 8	Total: 7

4.5 Theme 2: Understanding If and How Interviewees Are Familiar with the PATs

Regarding the research title, which explores the efficacy of applying PATs in Iranian organisations, the second part of the interview questions related to research question one, which is 'how do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?'. So, it began by asking interviewees if they were familiar with the PATs and how they knew about them. Among 28 interviewees, 8 of them (interviewees 3, 8, 16, 17, 19, 21, 24 and 27) had not heard about PATs, and the other 20 were familiar with PATs (see table 4.4). However, some of them applied the PATs officially at the recruitment stage. They considered it as a strategic criterion

to select the individuals, and the others just considered the PATs among their oral questions in the interviews and the knowledge of the PATs was gained by their personal interest in studying the personality tests. So, of 28 interviewees, 20 were aware of PATs which are categorised in Table 4.4. This table indicates that only four organisations included PATs as part of their recruitment strategic plan.

Table 4.4: This table indicates how 20 interviewees are aware of PATs

How the interviewees know about PATs					
Interviewees' Codes	Personal Studies	Academic Studies	company strategic plan	Other	Total
1				Berufsschule which is a German vocational school	1
2, 4, 10, 13					4
6, 22, 26					3
5, 7, 9, 11, 12, 14, 15, 18, 20, 23, 25, 28					12

4.6 Theme 3: Understanding PATs Application at the Recruitment Stage

This third theme represents the application of PATs at the recruitment stage. The three superordinate themes identified from this master theme include 1) not applied, 2) officially applied and 3) unofficially applied.

After finding out if and how the interviewees are familiar with different types of PATs, one of the key questions which were asked was to explore a) if the organisations apply PATs officially, what kinds of PATs they apply?, b) if the organisations apply PATs unofficially, what method they apply to identify personality criteria in the recruitment process? and c) if they do not apply PATs at the recruitment stage, how do they find out the personality criteria?

The responses of those who have not applied PATs at the recruitment stage were categorised into two groups a) organisations where the personality criteria have not been considered in interviews at all and b) the organisations in which their recruiters identify personality criteria based on personal judgments. The responses of organisations that applied PATs unofficially were categorised into two groups a) organisations where the recruiters develop tests based on their experiences and b) organisations where their recruiters identify personality based on their personal studies of PATs. The responses of those organisations which applied PATs officially were categorised into success and failure results of PATs application. The findings are demonstrated in table 4.5.

As described in table 4.5, seventeen organisations have not applied PATs, two organisations applied PATs unofficially, and nine organisations applied PATs officially. This finding indicates that 55% of organisations do not consider job applicants’ personalities as the main selection criteria. Also, among all the interviewees who were familiar with PATs, interviewee 26, although she was familiar with all types of PATs, she did not implement them at the recruitment stage as she stated that *‘even if PATs demonstrate the personality job fit, they are not a guarantee for the continuity of one’s retention in an organisation. The organisational environment is also very influential. Even if a person with a high level of personality job fit gets hired, an organisational environment impacts enhancing or reducing one’s productivity. Also, organisational culture must support and be congruous with the implementation of PATs at the recruitment stage, which I believe is not applicable in Iran because the senior managers do not support and believe in PATs effectiveness because of the traditional management system mindset.’*

Table 4.5: Demonstrating interviewees’ responses regarding the condition of applying PATs at the recruitment stage

Applying PATs at the recruitment stage			
Not Applied		Officially Applied	Unofficially Applied
Recognising personality job fit based on their	Personality criteria do not consider at all	4 (a team of occupational psychologists provided personality tests for the organisation. However, the interviewee did not explain more. So it	9 (the HR manager applied MBTI in his interviews with the job applicants based on

personal judgments		is unknown), 6 (the organisation, with the cooperation of an occupational psychologist, has provided a personality test specifically for their organisation based on MBTI test), 7 (they apply MBTI), 11 (they apply NEO, DISC and MBTI), 12 (MBTI), 14 (the organisation with the cooperation of an occupational psychologist has provided a test which is a combination of MBTI and Holland), 15 (a team of industrial psychologists applied Enneagram personality test which was unsuccessful. So, the HR manager applies a combination of MBTI, DISC and NEO), 22 (he provided a test which is a combination of MBTI and Holland), 23 (he has written and provided a personality test which has 7 personality criteria which are necessary for the organisation job roles requirements. He believed his test can be adopted to other organisations with some amendments based on the organisations' needs and wants)	his personal studies), 20 (MBTI)
Interviewees 1, 2, 5, 10, 18, 24, 25, 26 and 28	Interviewees 3, 8, 13, 16, 17, 19, 21, and 27		
Total: 9	Total: 8	Total: 9	Total: 2

4.6.1 The organisations that applied PATs officially at the recruitment stage

The responses of organisations that applied PATs officially indicate PATs were helpful in identifying personality job fit but not 100% and can be seen as an auxiliary tool. For example, interviewee 4 stated that *'PATs can help a lot but not 100%. The personality of individuals is more evident in the probation period. There is a possibility that a person answers the personality test in a way that is not true of him/herself.'* Also, interviewee 6 said that *'PATs provide an overview of one's personality, but these tests do not show 100% of a person's personality and are mostly general tests. People show the best side of their personalities. It is time-consuming and it is difficult for job candidates to answer 120 tests, so they reduced the*

tests to 25, which increased the error rate. We try to ask individuals what they do in the real situation (situational judgment test).'

Interviewee 7 mentioned that they apply MBTI. He thinks that the tests are cheatable and easy to find on the internet, so in the interview, they ask some additional questions to determine whether or not the person has responded to the tests correctly. He stated that *'tests are an auxiliary tool and do not work 100%. The tests are time-consuming and frustrating, which increases the probability of error. It was better to apply personality tests at school when choosing the field of study before the higher education stage. The answers demonstrate that most of the job applicants' university degrees do not fit with their personality type.'*

Interviewee 11 discussed that the application of personality tests gives a good orientation in the selection process and shows up to 50% of a person's personality which is very beneficial for them. But he also discussed that the process of decision-making should not rely 100% based on the results of the test and they should be done alongside the observation. One of the key answers of interviewee 11 was that the results of the tests could be interpreted very poorly because occupational psychologists do not have a general opinion and they make different decisions for a single test result. So, he concluded that the science of professional observation could work better to find out the personality. He mentioned that *'personality tests' result attaches a brand to the person, and the manager always thinks his employee, for example, is extroverted.'*

Interviewee 12 mentioned that even if the tests do not demonstrate 100% of a person's personality, but still there is a chance of choosing a person with a higher match between personality and the job. But he mentioned that the tests need to be updated every year and there is a risk of low standards or not updated tests.

Interviewee 14 discussed that every human has his/her own complexity of personality and job candidates do not show true of themselves through PATs. He mentioned that *'psychology is a complex science because humans are complex, and psychology science is not as clear as $1 + 1 = 2$. So, these tests cannot be a general rule of showing personalities.'* Interviewee 15 had a similar opinion to interviewee 14. Both of them mentioned that applying PATs helps the organisation's reputation as when a job candidate who comes to the organisation faces these

tests shows that the organisation has principles and people who are fit for the job will be selected. The person realises that he/she is going to work with the smart organisation and when he/she begins the job at the organisation tries to work with higher work efficiency and energy. So, the person knows that his/her behaviour will be observed meticulously and there is a clear framework for the interviewer to start with.

Interviewee 14 believed that a series of tests were localised, and some changes were made to the translation of the tests. For example, he stated that *'the extroversion factor doesn't matter in different cultures. The only disadvantage of these tests in Iran is that people are always on show-off and do not reveal their true selves. A person must conduct the interview with experience in human resources.'*

Interviewee 22 discussed that the application of personality tests provides them with a scientific structure and gives balance to the recruitment process. He mentioned that *'not applying personality tests is much more harmful than having them even seldom. For example, a person who is a specialist but with an aggressive or an absolute introvert personality might hurt around him/herself. It is important to implement it, but its practices need to be improved too.'*

Interviewee 23 mentioned that scientific ways prevent personal judgments, including recruitment issues, are among the best ways to solve organisational problems. For example, he said that *'if someone introduces a job candidate to us (nepotism/cronyism), we have a scientific measure and reason to refuse him/her. These tests help to modify employment methods to the scientific methods.'*

Alongside the positive side of PATs, he mentioned that personality tests could be cheated. So, it can't be the only criterion for selecting a person. For example, *'at the interview, how the job candidate dressing and talking can help the interviewer to have a better understanding of the job candidate. A human being is not a mechanical creation, it is not possible to measure the complex personality of a person with predetermined and mechanical tests.'* This response had an introduction with what he mentioned about the value of scientific methods during the recruitment stage.

4.6.2 The organisations that applied PATs unofficially at the recruitment stage

Two organisations indicated that applied PATs at the recruitment stage unofficially based on their experiences and personal interests in studying PATs.

Interviewee 9 mentioned that human being is complex, and no test can show all the dimensions of personality. He stated that *'some intelligent job candidates engineer the test results, and some job candidates reply to wrong answers as they might be impatient or tired. So, the test output is not valid due to incorrect answers. However, by applying the tests, the manager knows the person well and can match the job candidate with the required job. As a result, the person enjoys and loves his job to work easier.'*

Also, interviewee 20 mentioned that PATs could not be the perfect base for decision-making. It gives a general overview of a personality. *'It is influential, but it doesn't make the final decision. The final decision comes after three months of trial.'*

4.7 Theme 4: Interviewees' Perceptions of the Effectiveness of PATs on Their Decisions Making for Selecting a Candidate

The fourth theme indicates one of the questions which was asked from the interviewees to find out the answer to research question three (is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?). The responses indicate that there is a wide range of opinions about the effectiveness of PATs and if there is a difference between recruiters' decision-making with or without applying PATs.

Interviewee 1 mentioned that both the personality tests and the opinions of the recruiters, which are based on their experience, should be considered and none of them is perfect without the other. *'There should be an average of test scores and recruiter's score. As different recruiters might give different scores to one person, so implementing reliable and standard personality tests prevent the wrong decision of a recruiter. In my opinion, 20% should be the recruiter's opinion and 80% the test result.'*

Interviewee 2 concluded that people whom they had problems with and had a lack of work efficiency in the organisation were due to disregarding their personality parameters during the recruitment process, and it happened many times in their organisation. So, before the

dismissal, they do job rotation or relocation of the person to another department which causes higher work efficiency because of personality job fit. *'Although we are not implementing any kinds of PATs at the recruitment stage, we consider the personality factors unofficially and empirically to put people in jobs that make less trouble for the organisation in the future.'*

Interviewee 3 only mentioned that decisions were made better by considering PATs, and interviewee 4 stated that they have applied PATs in the last two years, which was a great help and productivity has been boosted.

Interviewee 5 discussed that applying PATs in Iran's current situation does not make any difference because the HR concept and PATs are not founded deeply in organisational culture. *'In Iran's current economic situation, the individuals try to cheat the test and answer what the employer wants. There are about 700 companies in the industrial area of Shiraz, but so far, you can find only 12 HR managers. This number talks to you. I believe if the tests start to implement officially, it is just the beginning of a disaster.'*

Interviewee 6 mentioned that *'there are some kinds of 'ManSani'²¹ mistakes which we think everyone who is like me is a better job candidate so the tests can complement the right decision. Also, there is a Halo error or Halo effect²². If the interviewer gets tired, there is a possibility of different results between the first and final interviews in terms of the interview quality.'*

Interviewee 7 discussed that by applying the PATs, the process of recruitment becomes more rational, and an emotional judgment goes away and helps the manager makes the right decision based on documentary evidence.

Interviewee 8 did not provide an answer as he did not have the experience of applying PATs.

Interviewee 9 claimed that if the test is tailored to the needs of the organisation, it makes a difference in recruiters' decisions. *'Applying PATs is not necessary if the recruiters know what to look for and have the knowledge of the interview. However, if the interviewer is not*

²¹ 'Man' in Persian language means 'I' and the word 'Sani' means 'similar'. So, the word 'ManSani' means a person who is similar to me.

²² 'Halo Effect is the tendency to generalize a single outstanding trait about a person over his/ her other traits or personality.' (Murphy, Jako & Anhalt, 1993 cited in Junaid et al., 2018)

professional in interviewing skills or does not have the required knowledge of the job and personalities so applying tests makes a difference in final decisions.'

Interviewees 10 and 17 just mentioned that applying PATs is necessary at the recruitment stage. No more explanation was provided by the interviewees.

Interviewee 11 claimed that they implemented the tests and it helped the recruiters to have a better understanding of the personality criteria of job applicants. However, he mentioned that *'just to rely on the test result is dangerous as we might lose some qualified people because of the Halo error.'*

Interviewee 12 also mentioned that PATs, as a scientific method, can reduce personal and wrong judgments and acts more as a facilitator.

Interviewee 13 discussed that he prefers to allocate more time and money to apply the tests to help him to choose a person whose personality fits with a job rather than find out after employment because an individual's dismissal or job rotation will be more problematic for him.

Interviewee 14 considered PATs as a complementary process for a recruiter. *'However, the face-to-face interview with the job applicants will provide higher achievements for the recruiters if they are experienced and have the knowledge of the job specification.'*

Interviewee 15 claimed that PATs are not ineffective, but because there is no proper infrastructure regarding the job roles' specifications in Iranian organisations, recruiters might not know exactly whom they want to choose.

Both interviewees 16 and 19 claimed that the application of PATs makes difference in the decision-making process to make the right choice and the tests are the auxiliary tools, not the main assessment tool.

Interviewee 20 indicated that the application of PATs makes decision-making easier because the database provided by PATs is more robust. Also, interviewee 22 mentioned that PATs provide managers with a system of support by providing a better view of the facts and *'it acts as a light in the darkness.'*

Interviewee 23 discussed that *'the tests help the employers to have scientific and rational reasons why they select a person rather than another person and that help them to overcome the nepotism and cronyism.'*

Interviewee 25 said that although PATs are effective, *'HR executives do not have the power to make decisions, and they are mostly the executor of the CEO orders and do not have sufficient authority, especially in hiring specialised experts.'*

Interviewee 26 said that tests can be helpful but raised the idea of group interviewing (interview panel). He said *'interview panels have a better result to prevent bias and wrong personal judgments. Also, if an interviewer is tired or has a headache, the interviewer will not do it properly.'*

Interviewee 28 mentioned that the error percentage increased without testing. *'Any tools that help us make the selection with a high percentage of success, including PATs, should be used.'*

Interviewees 18, 21, 24 and 27 did not provide specific and clear answers.

From the above responses, it is clear that the respondents believed there is a difference in HR managers' decision-making with or without applying PATs in the recruitment process. No interviewees indicated the ineffectiveness of applying PATs during the recruitment stage.

4.8 Theme 5: PATs Impact on the Hiring Process

Those who applied PATs officially and unofficially and those who were not familiar with the concept of PATs were discussed in sections 4.6 and table 4.5.

One of the key questions regarding research question two (what are the advantages and disadvantages of personality assessment tools in the recruitment process of Iranian manufacturing organisations?) was to ask the interviewees to demonstrate their opinions about the advantages and disadvantages of PATs at the recruitment stage. The related literature review regarding this question in Iranian organisations was not found, so this question provided rich answers through those who applied personality tests and explained their experiences. Also, those who applied the tests unofficially and those who have not

applied the tests provided their opinion regarding the positive or negative consequences of applying PATs in Iranian organisations. All 28 responses are included in the below areas.

4.8.1 Advantages of applying PATs

- ✓ It provides an academic basis for HR recruitment strategies,
- ✓ PATs are behaviour predictors at the recruitment stage,
- ✓ PATs make it easier to come to the right decision,
- ✓ By applying PATs and finding out the personality job fit, there will be greater efficiency in organisation outcome,
- ✓ PATs are complementary interview tools,
- ✓ PATs increase motivation,
- ✓ PATs at the recruitment stage create a higher organisation reputation,
- ✓ PATs prevent try and error

4.8.2 Disadvantages of applying PATs

- ✓ Job candidate's resistance towards PATs as a new method,
- ✓ Easy to cheat,
- ✓ Job candidates conceal their real personality,
- ✓ It makes extra costs for the organisation,
- ✓ PATs are based on a Western mindset, and they might not be applicable in Iran's culture. For example, interviewee 23 mentioned that in Iranian culture, people do not solve problems that they face; they just ignore them. He said that *'our culture has not taught us to solve the problems. So, in the problem-solving factor of a personality test, there might be an error in understanding the test for respondents.'*
- ✓ Answering the PATs is frustrating for job candidates,
- ✓ PATs do not indicate the personality 100%,
- ✓ PATs results are not reliable,
- ✓ Social desirability,
- ✓ There are difficulties with implementing the PATs in case of standardisation and interpreting of the results,
- ✓ PATs are time-consuming

4.9 Theme 6: Interviewees' Opinion on Prioritising PATs in the Process of Selection Criteria

In the pilot data collection (see section 3.6.2 Interview protocol and design), I found that the interviewees do not take responsibility for their lack of competencies in ignoring and disregarding PATs implications at the recruitment stage. They blamed the economic environment of Iran, which is caused by sanctions or lack of support from the senior managers regarding HR issues. So, I have added this question ‘what is your personal priority in an idealistic situation, to consider the application of PATs first or functional criteria first or simultaneously? and why (reason)?’ to find out their perspective regarding applying PATs regardless of external and internal environment changes. Some respondents provided reasons which are mentioned in table 4.6. Those who did not provide reasons for confirming the effectiveness of PATs, although I asked them to provide reasons, could not expand their ideas.

The 28 responses in prioritising are divided into four categories: a) first PATs, b) first functional criteria, c) simultaneously, and d) depending on the job’s requirements. Group ‘a’ are those who believe the first step in the selection process is the application of PATs and if a person can pass this stage is eligible for the functional criteria test. Group ‘b’ are those who believe functional criteria are more important than personality tests and if a person could pass the functional criteria is eligible to be tested by the PATs. Group ‘c’ are those who believe considering PATs and functional criteria have equal weight, and two separate teams should assess these two criteria and the results are the average of these two criteria. Group ‘d’ are those who believe that each job has a different specification and depends on the job’s requirement; they consider which criteria need to be applied first. Table 4.6 demonstrates the interviewees’ responses.

Table 4.6: Interviewees’ opinions on prioritising the selection criteria regardless of external factors

Interviewees' priority in the selection process	Comments
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<p>PATs are the first criteria in the selection</p>	<p>Interviewee 1: <i>'The personality test should be checked first. Because expertise is teachable.'</i></p> <p>Interviewee 5: <i>'I believe the priority should be for personality and if a person passed, goes to the speciality examination because experts is an acquired speciality, but the personality is from birth and cannot be changed or difficult to change. The training consists of three stages: skill, knowledge and insight. Skills and knowledge are acquired, but people's insights which personality is part of that cannot be changed.'</i></p> <p>Interviewee 6: <i>'Personality should be a priority because it is inherent; however, skills are teachable. Suppose a person does not have the team working personality or the personality which is required to work in the manufacturing sector. In that case, his/her personality cannot be learned and changed.'</i></p> <p>Interviewee 7: <i>'The personality must be checked first and then the functional skills. A person who conforms to organisational values has a threefold priority. Expertise is teachable by training, but personality is consistent and unchangeable.'</i></p> <p>Interviewees 8, 12, 15, 17, 18 and 19: <i>'First, is personality criteria.'</i> They provided no more explanation.</p> <p>Interviewee 10: <i>'Certainly, the personality of the individual must first be examined. People are selected by their expertise but get fired because of their lack of commitment. Commitment is a type of personality the same as working conscience or being organised.'</i></p> <p>Interviewee 23: <i>'First is a personality test because the skill can be upgraded, but the personality cannot be changed. The personality of human shape at the age of 6. An irresponsible man cannot be changed, and if he doesn't have the right personality, he'll ruin the whole organisation because he is dealing with other people too. If this person needs to work 1,000 calories, but you still have to burn 1,000 for him.'</i></p>
<p>First Functional</p>	<p>Interviewee 4: <i>'Productivity is the priority for our organisation. So, expertise is the first. Without the expertise no matter how good a person's personality is.'</i></p> <p>Interviewee 9: <i>'Although I believe both are important and have equal weight, it is better to consider expertise first.'</i></p> <p>Interviewee 25: <i>'Nowadays, there is a lack of expertise in Iran. So, the priority should be functional criteria. However, it can work in parallel if the organisation has enough funds and time.'</i></p> <p>Interviewees 26 and 28: <i>'First functional then personality.'</i> They provided no more explanation.</p> <p>Interviewee 27: <i>'We select a few people based on their expertise, so that is the priority. But we will check their personality during their probation period.'</i></p>
<p>Simultaneously</p>	<p>Interviewee 3: <i>'It has to be at the same time because none of them is working properly without the other one.'</i></p> <p>Interviewee 14: <i>'It is better to be done simultaneously and parallel to make the right decision and conclusion.'</i></p>

	<p>Interviewee 16: <i>‘Both are complementary and important. They must be done simultaneously. If the person has expertise but has not had the required personality, it makes problems for us.’</i></p> <p>Interviewees 20 and 21: <i>‘Simultaneously’.</i> They provided no more explanation.</p> <p>Interviewee 22: <i>‘I don't see this question as a priority concern. Personality and functional criteria are chains and cannot be without each other. They have the role of the heart and brain. Both must exist for a human to be alive. They have similar weights. They must be together. The personality is inborn, but the environment can change it. In my opinion, personality can be acquired.’</i></p>
<p>Depends on the Job's Requirements</p>	<p>Interviewee 2: <i>‘Some jobs pay more attention to the skills area. But in some jobs, personality is more important. However, all jobs need skills to be successful, even a typist. Skill is teachable, but personality cannot be modified by training. So, in some jobs, prioritising personality is the first criterion of the selection. In organisations, there are two kinds of key roles and ordinary roles. If an employee in an ordinary job leaves the job, it is easy to replace him/her. However, key jobs are those that are funded by the organisation over time, and employees gain experiences that are not available to others. So, considering personality factors is important in these jobs as they require individuals to be stable and loyal to the organisation.’</i></p> <p>Interviewee 11: <i>‘We have tried all three methods (first personality, first functional or considering both together). Based on my experience, it depends on which job you consider in which organisation. If you recruit a workforce for a charity or service sector, the priority is personality because there are a lot of customer relationship concerns, such as services to children and the elderly. In the industrial and manufacturing sector, experience, degrees, skills, and knowledge are valued, and individuals who meet the minimum standards are required to perform personality tests.’</i></p> <p>Interviewee 13: <i>‘In permanent contracts, it is more important to consider the personality. In the hardware and networking sector, one's knowledge and science are more important rather than personality. So, the recruitment strategy is different.’</i></p> <p>Interviewee 24: <i>‘It depends on how much expertise the job needs and how much the personality involves. In some jobs, expertise has a priority even if it doesn't need good work ethics.’</i></p>

4.10 Theme 7: Interviewees' Perspective if Applying PATs Leads to Personality Job Fit

To reach the third research question answer, which is to find out if it is appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in

their recruitment process, one of the sub-questions was to ask directly from the interviewees if PATs lead to personality job fit. The reason to ask this question was that the interviewees were well-informed and experienced people in the manufacturing sector. They were engaged in all the processes of pre-employment and post-employment. So, their responses could demonstrate if considering PATs at the recruitment stage is a necessity or not.

The 28 responses were categorised into a) interviewees who had proponent ideas if PATs lead to personality-job fit, b) opponent ideas, and c) moderate ideas. The moderate ideas also were categorised into negative (those who have a moderate opinion but tend to be more negative), neutral, and positive (those who have a moderate opinion but tend to be more positive). There was no opponent idea among 28 responses regarding the application of PATs to lead personality-job fit. The interviewees who provided any more comments rather than short answers are provided in table 4.7.

Table 4.7: Interviewees' opinions regarding the application of PATs lead to personality job fit

Interviewees' Opinions	Personality job fit via PATs at the recruitment stage		Total
Opponents	No opponent idea		0
Proponents	<p>Interviewee 1: 'I strongly agree and believe that PATs make personality job fit.'</p> <p>Interviewee 20: 'I agree 100% that PATs make personality job fit, but the tests should be localised.'</p> <p>Interviewee 27: 'I definitely agree. However, the organisational personality of individuals can be changed during the time.'</p> <p>Interviewees 2, 3, 5, 6, 8, 10, 12, 14, 15, 16, 18, 22 and 28 were proponents, however, did not provide more comments.</p>		16
Moderates	Positive	<p>Interviewee 7: 'Because it's an auxiliary tool and it does not show 100% of a personality.'</p> <p>Interviewee 17: 'The tests are not the only determinant because some job candidates do not like filling out tests and not doing it properly.'</p> <p>Interviewees 4, 19, 21, 23, 24, and 25 had moderate positive opinions but did not provide more comments.</p>	8
	Neutral	<p>Interviewee 9: 'The personality tests show the present personality of people. I believe the</p>	3

		<p><i>personality will be changed over time based on life difficulties.'</i></p> <p>Interviewee 11: <i>'Depends on the knowledge and skills of the job applicants, the tests can be done right or illusory. Also, the skill and experience of the test taker are very important to analyse the responses.'</i></p> <p>Interviewee 13: <i>'It depends on its applicability. Somewhere it is useful, and for some jobs, it is not.'</i></p>	
	Negative	<p>Interviewee 26: <i>'PATs can predict people's personality; however, based on my experience, I have faced many people whose personalities changed after the recruitment.'</i></p>	1

4.11 Theme 8: Organisations' Challenges at the Recruitment Stage

To understand the conditions of organisations related to HRM, one of the questions asked interviewees was 'what are the main challenges and pressures you have been facing during the recent years in the recruitment process?'. The reason to ask this question was to have a deep understanding of HRM conditions in Iranian organisations, as literature studies could not demonstrate adequate and related data. Two responses, including well-connected people and unqualified candidates, were common among 28 responses which are discussed below. 'Well-connected' is a new term which introduces in this research. Well-connected people relate to political cronyism. They are the people who are introduced and recommended by politicians or high-ranking people in the government to get a job in an organisation without considering their qualifications or required KSAOs related to the job. (See also appendix 4.3: organisations' challenges at the recruitment stage)

4.11.1 Well-connected people as one of Iranian HR managers' challenges at the recruitment stage

Among twenty-eight interviewees, thirteen interviewees mentioned well-connected people as one of the significant challenges at the recruitment stage (interviewees 4, 7, 8, 10, 11, 12, 13, 14, 18, 22, 24, 27 and 28). The participants stated that the problem of well-connected people starts when organisations advert for a job vacancy in the local newspaper or on

recruitment websites. After that, they receive many calls from people who introduce them to well-connected ones.

The problem of hiring well-connected people is common and expected for brand organisations²³. They receive calls from introducers whenever they advert for a job. However, for some jobs that need specific knowledge and experiences, not everyone is eligible to get the job just by a referee's recommendation.

The challenge worsens if an organisation is the only manufacturing factory in the region, so there is a possibility of higher pressure from the regional governor or the region's religious leaders to hire well-connected people. Some organisations that the accomplishment of their work depends on the decision of the job applicant's introducer must deal with this dilemma as avoiding hiring those people might cause future problems for them by the introducers. Interviewee fourteen mentioned that they are resisting hiring well-connected people. These people have not been recruited based on their KSAOs and are not working properly in terms of what the organisation expects from that job role. Managers can not criticise them clearly for the lack of work efficiency. So, they disrupt the fair and justice environment of the organisation as managers cannot treat them the same as other employees.

Some interviewees mentioned that the challenge of working with well-connected people is all around the country and is a social and cultural problem. It is apparent in Iranian culture and is not just limited to organisations and only during employment. Well-connected people are not ashamed of the way they were introduced, and sometimes it even gives them a sense of power and more self-confidence in their workplace.

Some organisations have created solutions to overcome this problem and deal with this challenging situation. The solutions are different and depend on the power of well-connected people. For example, interviewee seven mentioned that if they have to recruit a person, they find a reason to dismiss him/her after a while. But if in a situation that they cannot dismiss easily, interviewee ten found another solution for their organisation and said they try to make it less or not give them critical roles. Managers try to put them in job positions, which has a more negligible effect on the organisation's outcome.

²³ Interviewees mentioned that 'brand organisations' are the ones which are famous in the region and in the country in terms of sale and number of employees.

Interviewee eight mentioned that the CEO directly ordered the HR department to solve this problem. The newly selected employees should not have family or friendly relations with the existing employees and the board of directors. This filtering makes it possible to recruit individuals based on their qualifications and skills, not the reason for political nepotism or cronyism.

Some organisations changed their advert policy by not mentioning the organisation's name. They just mention in the job advert that a highly valid organisation is looking for an individual with these required skills. So, in this way, it is not clear which organisation is advertising, and regional governors do not find out if an organisation around their region looking for a job applicant.

With all this, it is worth mentioning that only one interviewee (code 27) noted that they could overcome this issue. He firmly believes that if an organisation cannot overcome the problem of hiring well-connected people, it means that the CEO does not have the power to say no to the introducers. So, interviewee 27, by setting a robust strategic management system in his organisation, increased sales and strengthened the financial system. So, they have made region governors dependent on them rather than affecting the organisation's decisions and employment policies.

4.11.2 Unqualified candidates as one of Iranian HR managers' challenges at the recruitment stage

Among twenty-eight interviewees, twenty-four interviewees mentioned unqualified candidates as significant challenges at the recruitment stage (interviewees 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26 and 28).

Another main challenge for HR departments in the Iranian manufacturing sector is unqualified job candidates and the challenge of identifying the right person for the jobs. Interviewees indicated plenty of comments about job candidates' lack of knowledge. Most participants stated that although many people have higher education degrees, there is a lack of highly qualified and skilled people or individuals with a high level of knowledge when they graduate from universities. They mainly emphasised Iranian private sector universities. Based on participants' comments, these universities do not value their students' high level of knowledge. Their only aim is to graduate more students and earn more money without

considering the quality of their knowledge. Private universities have a business vision, and with more students, they can offset their costs. It seems that universities do not dismiss students if they fail their courses, and universities just focus on attracting more students.

For example, interviewee three said they asked for an expert workforce; however, after three months, they still could not find the right person for the job. The challenge is not only related to new graduates as some participants mentioned that even they have the challenge of recruiting managers with high knowledge of management skills. Interviewee ten also provided another example and noted that they had a job applicant with a master's degree in chemistry; however, he could not respond to the questions regarding high school chemistry in the job interview.

Interviewee six mentioned that regardless of knowledge, even job candidates are low in competence and ability. The number of job applications is high, but they cannot find a person with a high level of competencies. For example, among 120 job applications, they might find just one application that meets their needs. Highly educated and experienced people are expensive to hire, and low experienced people need training which has costs for organisations.

Some interviewees mentioned that the number of private universities had increased, and these universities are not the same as public universities with a higher ranking in terms of sharing knowledge. However, this problem cannot be generalised, and it depends on the private university's ranking. This problem is not only related to private universities, as interviewee thirteen claimed that although they had job applicants from high-ranking public sector universities; however, about 80% of them were eliminated in the first round of interviews. So, this problem made the organisation reduce their expectations to be able to hire some people.

Interviewee seventeen stated that it might not be accurate to say there are a few knowledgeable people. However, as highly knowledgeable people are hired fast, it is hard to catch them, and they ask for higher salaries that some organisations can't afford. The problem is that people do not have personal studies, and they just rely on university degrees.

Among all responses, interviewee twenty-three stated that it is not proper to call new graduates with a low level of knowledge. Most managers compare recent graduates and a

young generation to themselves. Each generation has its own specifications and needs. The fundamental problem is that organisations let go of the person who comes into their organisation. This behaviour causes a lack of motivation to work correctly. New graduates need support and training to grow. Also, few senior managers value and care about the young generation and help them by training to enhance their learning and knowledge. The lack of highly qualified senior managers causes the lack of experts.

Among the responses, interviewee eleven mentioned that their organisation found a solution as they are aware that universities' outcome is graduates with a low level of knowledge. So, their priority in hiring is with those who have self-learning behaviour and do not just rely on the university modules and are looking for learning skills and knowledge rather than university. Participants agreed that getting a university degree is just a show-off in Iran for the new generation, and the educational system policies are wrong. The job applicants who have internship courses at the universities are more qualified than others as they learn in practice rather than theories.

4.11.2.1 Why there is a lack of knowledge in the young generation?

What the interviewees acknowledged about the crisis of insufficient knowledge of graduates was accompanied by relevant reasons. They stated that in all societies, universities are centres of knowledge, and regarding the high volume of universities in Iran, the industry is expecting education and knowledge from universities. However, the educational system in the country has grown disproportionate to the needs of the industry, and the academic system is not in line with the manufacturing sector. Sharing knowledge with commercial and industrial partners drives economic and social growth in the country. However, a lack of communication between educational institutions and the business environment makes a person learn theory but not in practice. Also, organisations are not capable of training new job candidates because of time and costs.

Regardless of knowledge, it seems that the new generation in Iran is not capable of solving organisational problems and has not learned problem-solving skills. Interviewee five had an example of a Petrochemical Company related to 30 years ago that used to train people and use them in its industry with a holistic approach. The strategy of the Iranian Petrochemical

Company was that if those trained people do not continue with them, they would be helpful in other parts of industries in Iran.

Interviewee six said that the unqualified candidate problem is just limited to the new young Iranian generation. It is not just about their knowledge; even it is evident in their lifestyle type and expectations. A newly graduated person who has not gained any experience and enough knowledge is expected to be paid a high salary and expects to be hired at management levels. Also, interviewee nineteen, who is also a university lecturer, stated that there is a gap between academic courses and the job market. Universities do not teach in practice, and it is all about theories. Students are very different from ten years ago, and in the new generation, personal studies are deficient.

Another thought-provoking reason among responses was that well-educated and expert people left the country and immigrated to other countries as skilled workers, so there is a lack of knowledgeable and well-educated people among job applicants.

4.11.3 Other factors as Iranian HR managers' challenges at the recruitment stage

Apart from two common challenges (well-connected people and unqualified candidates) that participants acknowledged, other issues were raised among the participants' responses, which are discussed below.

1. There is insufficient training in Iranian society for people to be helpful and how to have discipline in their lives. Ethical issues such as discipline should be taught from childhood, which should be emphasised in schools.
2. Nowadays, when the young generation decides to do something cannot make it into practice because they do not have any motivation for achievement. The young generation thinks that they can make their future by migrating abroad. Those who immigrated, studied, and grew up with national capital are an excellent asset for Iran; however, other countries like Canada, the United Kingdom etc., absorb them as ready skilled workers. They are the same people, but when they live in other countries, they respect laws, and their manner is different from when they lived in Iran. Adherence to

the law and heavy fines in other countries prevent people from doing the wrong things.

3. Along with well-connected people, nepotism and cronyism have existed.
4. When the young generation applies for a job, they do not attend and easily miss the interviews. This problem originated from a lack of motivation in the young generation to work hard and earn money because parents always support them financially, which is part of Iranian culture. There is a cultural issue in which families raise and support children without considering their age. Men and women might be around their thirties to forties and still get financial support from their parents. So, the young generation has no intention of finding a job, earning income, and asking for a high salary.
5. There is a need to change the work culture in Iran's society. A new generation is looking for a job with fewer responsibilities but with higher salaries and higher job positions.
6. There is a supply and demand challenge regarding hiring people. There is a high volume of demand for a job; however, the job opportunities are low.
7. The private sector does not pay high salaries. So, highly skilled people do not apply for their job vacancies, and they either immigrate to other countries or hire in public sectors.
8. The lack of a qualified workforce relates to cultural issues. People have a high IQ but low EQ and face problems with posts requiring communication skills. The previous generations used to play physical activities in their childhood and play games as a team. However, in the new generation, more games are computer-based, and now they are grown up and have no idea of responsibility and teamwork. Also, they are physically weaker and less motivated. For example, most men job applicants have bought their two years of military service. Women are more motivated and work better than men.
9. Iran's economic condition has two side effects: firstly, as the economy has not been good in recent years, people who have graduated from universities have not been able to find jobs and gain experience, so neither in university nor the industry they could not learn in practice. Secondly, highly skilled and knowledgeable people ask for higher salaries, which is impossible for organisations.

10. Some manufacturing organisations have regional issues. The local people believe that as the factory has been placed in their region, all the workers should be from that region. However, to overcome this issue, some boards of directors banned any nepotism and family relation hiring.
11. Young people do not look for low-level jobs. For example, working as a waiter in a restaurant or a worker in a factory does not satisfy the young generation as the culture does not give value to those jobs.
12. There will be a quality crisis in 2030 in Iran. Immigration and brain drain is at a high level which will cause a serious crisis in the next ten years of Iran.

4.12 Theme 9: The Concept and Application of Strategic HRM in Iranian Manufacturing Organisations

The findings from interviewees indicate that among the 28 responses, not all the organisations in Iran are following or considering strategic HRM in the HRM decision-making and action plans. Among the 28 interviewees, two of the HR managers (interviewees 8 and 16) indicated that they had no perception of strategic HRM meaning, and it was a new term for them in the interview. Among the other 26 interviewees who were familiar with the concept of strategic HRM, 12 of them (interviewees 4, 5, 6, 10, 11, 12, 19, 20, 21, 22, 27 and 28) reported that they are conducting strategic HRM, the HR action plans, and recruitment approach supports their organisations' goals and outcomes. Of the other 14 interviewees who were not conducting strategic HRM, 7 of them (interviewees 3, 13, 17, 18, 23, 24 and 25) believed the traditional management system has not let them implement strategic HRM. The below quotations illustrate strategic HRM conditions in Iranian manufacturing organisations.

Interviewee 18 stated that:

'It would be easier to conduct strategic plans if senior managers believe in the efficiency of implementing modern management methods because they would encourage workforces as an organisation's role model.'

Interviewee 23 stated that:

'In the defence industry, I saw that HRM was strategic and very dependent on the manager himself because the manager himself was very thoughtful. Human resources itself is not a strategy in Iran, and it depends on who is the manager and how much he believes in it. The dominant belief in Iran is not that the manager must go ahead as a leader and the rest follow him. In the late 70s and early 80s (Persian Year), the strategy discussions and the EFQM (European Foundation for Quality Management) model reached a pick, but that belief was left out with the slightest economic turbulence because managers did not believe in it and strategic thinking and planning was not rooted, prioritised and considered as the necessity by managers, but I relate all of them to the cultural issues. So, there is no specific strategy right now. In the seventies (Persian Year), a book was circulated to everyone with the name of the bureaucratic transformation plan. But it didn't work because no one was supporting that. If an organisation feels the need to be upgraded, it will implement strategic plans, but there is usually a routine in all Iranian organisations.'

Interviewee 24 stated that:

'There are many strategies on papers only. The strategy disappears after a few years. To have a successful strategic plan, the senior manager should believe in it as all the employees look at the senior managers as their role models. Very few managers implement strategic plans.'

Interviewee 25 stated that:

'Strategic HRM has been introduced to Iran for many years but has not been used as a tool, and the justification is that it is not successful. Management is traditional in Iran, and if an organisation succeeds, the manager believes that it is his/her inherent leadership and that type of management has helped the organisation grow.'

As a result of the above discussions, the lack of support and knowledge of senior managers about strategic HRM hinders the implementation or continuation of this work.

The seven interviewees from 26 interviewees who were familiar with the concept of strategic HRM (interviewees 1, 7, 9, 14, 18, 23 and 24) indicated that sanctions against Iran imposed by several countries, especially the United States, have caused a financial crisis and

unsustainability in Iran's manufacturing sector. Of 28 interviewees, 11 commented on the impact of sanctions on Iran's manufacturing sector, which are available in table 4.8. The numbers in the table are the code of interviewees.

Table 4.8: Interviewees' comments about the impact of sanctions on Iranian manufacturing organisations

Interviewees' codes and their job roles	Comments
1 (CEO)	<i>'We wrote and documented the company's strategic policy; however, we do not follow the strategic plan. To be able to follow the strategic plan, all the external factors, including (political, economic, socio-cultural, and technological) should be stable. We cannot predict our next financial year situation, let alone next 5- or 10-years plan.'</i>
7 (HR manager)	<i>'Sanctions caused a destructive financial impact on the manufacturing sector, and some factories are closed or near to bankruptcy. As a result, there are many layoffs every year. So, implementing HR strategic plan at the organisations might not be the priority of CEOs.'</i>
9 (HR manager)	<i>'There is a documented strategic plan, but it can't be done. Because there are so many fluctuations in the country, it is not possible to do strategic HRM according to the plan. All SWOT analysis changes rapidly. Fewer organisations in Iran have been seen to work based on their HR strategic planning. There is a lot of displacement, and the workforce can leave the job without notice. So, managers don't know how long people would stay in the organisation to set their long-term plans.'</i>
14 (HR manager)	<i>'We have a strategic plan, but like all other factories, it is documented but not very up to date with the country's situation. It is difficult to perform the plan because of the country's fluctuation in politics and financial conditions. Most goals are set just for a one-year plan.'</i>
18 (HR manager)	<i>'We had an EFQM plan. But in my opinion, as a person who has been researching for twenty years in that field, 90% of the strategic plan is just on paper and must have an executive sponsor. How do the factories where their raw materials come from outside of Iran follow their strategic plan when there is high inflation in the rate of foreign currencies (Euro and Dollar)? Strategic Human Resource Planning has been placed since 2013 but cannot be implemented.'</i>
23 (HR manager)	<i>'Nowadays, organisations in Iran are talking about tactics rather than strategies. To set their plans, they should predict next week or the next day, not a year. Now the main problem for all organisations is the issue of liquidity, so when you have troubles, you move from strategy to tactics because you can't think long term, and it's not economic stability. We had stability in the seventies (Persian Year). So, most organisations were</i>

	<i>looking for modern management methods, including EFQM. People tend to think of strategic management whenever there is economic stability.'</i>
24 (HR Expert and Consultant)	<i>'One of the most important processes in strategic plans is reverse engineering, which helps managers find the challenges to evaluate and refine them. However, it can't be done these days, and the current conditions don't make it necessary and priority for managers to do it.'</i>

Among the 26 interviewees who were familiar with the concept of strategic HRM, 3 of them (interviewees 2, 15, and 26) did not provide any specific and clear responses to why strategic HRM has not been implemented by them in their organisations.

4.13 Theme 10: Job Satisfaction

Regarding the conditions of HRM in manufacturing organisations, a question asked from interviewees how they see the overall job satisfaction of employees and how they measure the job satisfaction of employees. The reason to ask this question was that the findings in the literature review (Edward, 1991; Kristof-Brown et al., 2005 and Boon et al., 2011) demonstrate that people whose personalities are not fit with their job roles have lower job satisfaction in comparison with those whose personalities are matched with their job roles. The discussion of this factor will be demonstrated in chapter 5.

Among the 28 interviewees, interviewee 2 mentioned that as the job satisfaction measurement criteria are not standard, so it is not possible to find out job satisfaction. He said *'job satisfaction forms are not professional. Most are inferential analyses rather than the scientific method. An individual who is dissatisfied with his job, his colleague, might be happy with the same job. So, we cannot decide whether what we did was positive or negative. We can get long-term results by applying the scientific method to measure job satisfaction.'*

Interviewee 13 claimed that the *'job satisfaction form was distributed randomly and not to everyone. The questions in the forms are inaccurate, and each question has a different interpretation. For example, "having a job addiction" has a different meaning to employees. I think job satisfaction results were not valid as the current economic situation caused employees to prevent express their dissatisfaction to keep the job and have income.'*

Interviewee 24 said that they apply the job satisfaction questionnaire every three months. *'Some people are afraid to respond, so we made it anonymous. After a while, it can be frustrating for people if they do not receive feedback. If feedback is not given, people will be demotivated.'*

Interviewee 26 said that *'there are questionnaires but not responsive. If a worker fills the form, there is always a tendency to be negative, and when one knows that the problem has been raised but not resolved, it can have a negative effect. I think that an ideal economic situation can be helpful.'*

Interviewees 5, 8, and 21 claimed that job satisfaction had not been measured yet in their organisations. The other interviewees who stated the level of job satisfaction in their organisations are demonstrated in table 4.9.

Table 4.9: Job satisfaction condition in Iranian manufacturing organisations

Job Satisfaction	Interviewees' Comments	Measurement Method
High job satisfaction	<p>Interviewee 3: <i>'The only concern was about job security as contracts are mostly short term. Based on our survey, 98% were completely satisfied with their training and management.'</i></p> <p>Interviewee 6: <i>'We have a motivational calendar which is written throughout the year based on the Maslow hierarchy of needs. We listed what employees need from the first level of the hierarchy. For example, a mortgage to buy a house.'</i></p> <p>Interviewee 7: <i>'It was 60% to 70%. We measure yearly after they are paid or rewarded to get good feedback, which also this method goes back to Iranian culture. The form is distributed to everyone.'</i></p> <p>Interviewee 9: <i>'We have high job satisfaction and measure it every two years. Our payment is higher than in other factories.'</i></p>	<p>Interviewees 3, 7, 9, 10, 11, 16, 17, 27, 28: Job satisfaction survey</p> <p>Interviewee 6: JDI method and the job satisfaction forms which are adopted from EFQM</p> <p>Interviewee 15:</p>

	<p>Interviewee 10: <i>'We have high job satisfaction as the rate of quitting the job is 0.'</i></p> <p>Interviewee 16: <i>'There is high job satisfaction, and the only concern which employees mention in the forms is a financial problem.'</i></p> <p>Interviewee 18: <i>'There is high job satisfaction as the company pays the salaries on time. In Iran's current economic situation, the financial situation is the first concern for the employees.'</i></p> <p>Interviewee 19: <i>'The level of satisfaction is very high. System productivity and staff loyalty are benchmarks for us.'</i></p> <p>Interviewee 27: <i>'We considered Maslow's Pyramid. 90% of job satisfaction relates to a financial incentive. The upper floors of Maslow are also influential, but in Iran's current financial situation, it is more important to consider the financial levels of Maslow.'</i></p> <p>Interviewees 11, 15, 17, and 28 claimed high job satisfaction but have not provided more comments.</p>	<p>The survey through HR experts and consultancy.</p> <p>Interviewees 18 and 19: No measurement method</p>
<p>Moderate job satisfaction</p>	<p>Interviewee 4: <i>'Job satisfaction measurement is part of our HR strategic plan. Performance evaluation is done every six months or a year. The chart shows the changes compared to the previous year, and the company set new strategies to improve productivity. Job satisfaction over 50% looks good but not great, and job satisfaction under 50% needs improvement. The job satisfaction forms are filled anonymously by employees.'</i></p> <p>Interviewee 12: <i>'A new evaluation has recently been carried out. There was relative satisfaction.'</i></p> <p>Interviewee 14: <i>'To perform and analyse job satisfaction survey is under quality assurance department responsibilities. How to analyse the results is important, and because many criteria are qualitative and not quantifiable, it is hard to analyse them. Satisfaction is relative, and we have no absolute satisfaction. Employees fill out the forms anonymously and leave a comment; then we consider action plans to improve job satisfaction.'</i></p> <p>Interviewee 20: <i>'Job satisfaction is a dependent variable. First to the country's situation. Second, how are the people at the same level as me and thirdly, compared to my past life conditions.'</i></p>	<p>Interviewee 4: Job satisfaction survey and feedback on employees' productivity and the performance appraisal</p> <p>Interviewee 12: The 360-degree feedback</p> <p>Interviewees 14 and 20: Job satisfaction survey</p>
<p>Low job satisfaction</p>	<p>Interviewee 1: <i>'Job satisfaction was high two years ago, and it was much better five years ago. Because side privileges and salaries provided the average life for the workers. Currently, they have 15% job satisfaction. Some</i></p>	<p>Interviewees 1, 22, 23, 25: No measurement method</p>

part relates to financial problems, and some relate to the unawareness of human resources about improving their life quality. For example, a worker could plan to save money and buy a car five years ago, but now he cannot plan. People constantly compare themselves to those who work to make money and those who do not work and make money. These cause concern for them and cause psychological and financial consequences (lower quality of work). In comparison with Germany, income is through labour, not government subsidies and national capital. Because they believe that the infrastructure of the country is based on their work, not oil. For example, Iranian believe that the health system should provide all the services free for them and expect the government to pay for them. Most of the dissatisfaction is psychological. The farmers who lived in villages were producers, and now they moved to the cities and changed to consumers. Iranian culture is mostly based on receiving rather than producing. Cultural infrastructures should be learned from childhood and schools.'

Interviewee 22: *'Job satisfaction and organisational commitment and organisational culture are subjective issues and relate to various factors, and the measurement method may not be accurate. We don't have any standard tools to measure job satisfaction. This should be organised by the national standard organisation, which they have not done yet. The survey should be done periodic and continuous. However, the organisations survey to approve, show and confirm the high ability of the management. I'm afraid I have to disagree if a company claims high job satisfaction. E.g. as a manager, I can pay a bonus to my staff today and then distribute the job satisfaction survey on the same day. The job satisfaction that employees claim to exist is relative, and partly because they say what to do if we leave here. So, they can't be trusted because we don't have the right tools.'*

Interviewee 23: *'Consent forms require high expertise and are not written properly. Employees are Just glad they are at work. This is not job satisfaction. Job satisfaction is when you come to work thinking about how to upgrade and improve your work and go beyond your field of responsibility. Of the 350 employees, perhaps 10 of them ask questions and have a personal study that shows they are interested and want to grow. This shows that they have inner joy and are satisfied.'*

	<p>Interviewee 25: <i>'Job satisfaction is low because of economic conditions and weak management. Job satisfaction is not based on the Maslow pyramid, which is a necessity to be considered. Job security is low, and the workforces are easily replaced. Attention to human resources is low. Management is traditional, and if an organisation succeeds, the manager believes that his inherent leadership helped the organisation grow, not the human resources effort.'</i></p>	
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4.13.1 The nexus between job satisfaction and PATs

The below table shows the link between interviewees' responses regarding high, medium, and low job satisfaction and those who applied PATs officially and unofficially at the recruitment stage. Table 4.10 helps us understand if there is a link between job satisfaction and using PATs at the recruitment stage.

Table 4.10: The table demonstrates the relationship between job satisfaction and PATs according to the interviewees' responses in Iranian manufacturing organisations

	High Job Satisfaction	Moderate Job Satisfaction	Low Job Satisfaction	Job satisfaction has not been measured yet
Officially applied PATs	Interviewees 6, 7, 11, 14, 15	Interviewees 4, 12	Interviewees 22, 23	-
Unofficially applied PATs	Interviewee 9	Interviewee 20	-	-
Considering personality criteria based on personal experience	Interviewees 10, 18, 28	-	Interviewees 1, 25	Interviewees 2, 5, 24, 26

Personality criteria have not been considered	Interviewees			Interviewees
	3, 16, 17, 19, 27	-	-	8, 13, 21

The data in table 4.10 demonstrate that:

- Among 9 interviewees who have applied PATs officially, 5 of them indicated high job satisfaction, two of them moderate, and 2 of them low job satisfaction.
- Among 2 interviewees who have applied PATs unofficially, one of them indicated high and the other one indicated moderate job satisfaction
- Among 9 interviewees who have not applied PATs however they consider personality criteria in their selection interviews based on their experiences, 3 of them have high job satisfaction, 2 of them had low job satisfaction, and 4 of them have not measured job satisfaction yet.
- Among the 8 interviewees who did not consider personality criteria, 5 of them indicated high job satisfaction and 3 of them did not measure job satisfaction.

4.14 Summary of the Chapter and Main Key Finding

This chapter presented the data which were extracted from the interviews in the data collection process. The presented data are aligned with research questions 1, 2 and 3. The discussion of findings will be discussed in chapter five. As the main focus of this study regards HRM strategies to achieve personality job fit through the application of PATs, specifically at the recruitment stage, the following data were found:

1. The overall background of organisations regarding HRM concepts and what they know about HR strategies. The extracted data presented how the implementation of the recruitment programme was based on the organisation's strategic plan and visions.
2. The data indicated cross-cultural issues such as benchmarking Western methods for Iranian culture (section 4.4, theme one).

3. The main challenges and pressures that organisations have faced in recent years during the recruitment process indicated a new factor of political cronyism or well-connected people and the economic conditions resulting from sanctions.
4. The shortlisting criteria and the priority of organisations regarding either functional criteria or personality tests were found and explained. The shortlisting criteria are categorised as cronyism, nepotism, political cronyism, KSAOs and no criteria.
5. The level of familiarity of organisations with PATs and the nexus between job satisfaction factors and considering PATs at the recruitment stage was found.
6. The perception of the interviewees regarding the advantages and disadvantages of applying PATs at the recruitment stage was studied, and the interviewees' responses indicated the link between Iran's culture and the efficiency of PATs.
7. The initial step of recruitment which is advertising for a job, has the same process for most organisations and it is through local newspapers, social media, the company's website, friends and family's recommendations and recruitment agencies.
8. Most interviewees know about PATs through their personal studies rather than organisational HRM strategic plan.
9. Seventeen organisations have not applied PATs, two organisations applied PATs unofficially, and nine organisations applied PATs officially. This finding indicates that 55% of organisations do not consider job applicants' personalities as the main selection criteria.
10. Organisations that applied PATs officially indicate PATs were helpful in identifying personality job fit but not 100% and can be seen as an auxiliary tool.
11. Two responses, including well-connected people and unqualified candidates are the main challenges at the recruitment system.
12. The new generation in Iran is not capable of solving organisational problems and has not learned problem-solving skills. It is not just about their skills and knowledge; even it is evident in their lifestyle type and expectations. A newly graduated person who has not gained any experience and enough knowledge is expected to be paid a high salary and expects to be hired at management levels.
13. There is high amount of migration among young generations. The young generation thinks that they can make their future by migrating abroad. Iran has the highest ranking in brain drain.

The presentation and analysis of findings in this chapter will be discussed in chapter five to answer the below research questions:

RQ1: How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?

RQ1.1: How do HR managers evaluate criteria related to personality job fit in the recruitment process of Iranian manufacturing organisations?

RQ2: What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

RQ3: Is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?

RQ3.1: How do Iran's cultural issues impact the application of personality assessment tools in the recruitment process?



CHAPTER FIVE

DISCUSSION



5.1 Introduction

This chapter by considering and critically re-examining the literature review outlined in chapter two and synthesising with the primary data demonstrated in chapter four will discuss the meaning of the findings in light of the main three research questions as shown in table 5.1. This chapter will demonstrate how and why the findings fit with the concept of personality assessment tools at the recruitment stage and how HR strategists react to the implication of modern management tools in Iranian manufacturing organisations.

Table 5.1: The three research questions directing the study

The three research questions and sub-questions directing the study

RQ1: How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?

RQ1.1: How do HR managers evaluate criteria related to personality job fit in the recruitment process of Iranian manufacturing organisations?

RQ2: What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

RQ3: Is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?

RQ3.1: How do Iran's cultural issues impact the application of personality assessment tools in the recruitment process?

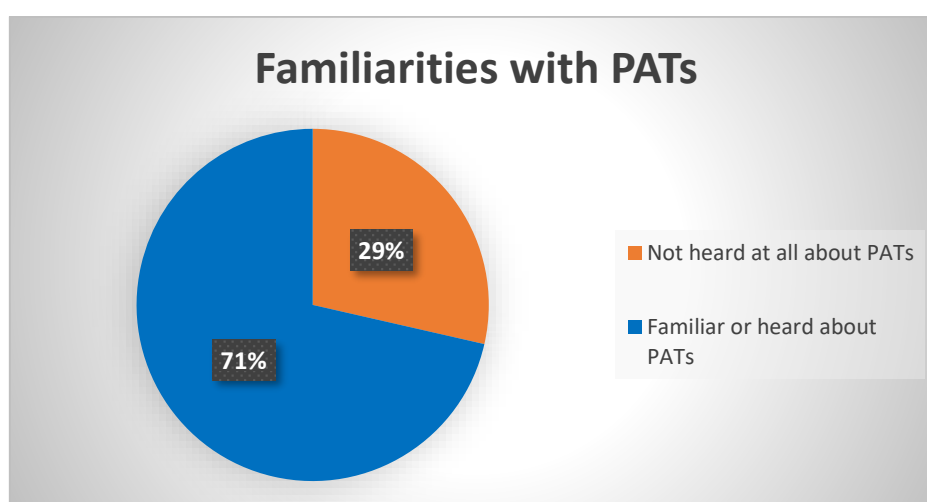
In this chapter, to assist the reader, the extant literature and the key findings of each research question will be discussed separately to illustrate the correlation between them. Also, further key findings will be discussed at the end of this chapter.

5.2 RQ1. How Do HR Managers in Iranian Manufacturing Organisations React to the Use of PATs in Their Recruitment Process?

As discussed in chapter 4, 25 participants had the role of HR managers, HR consultants, and HR experts and 3 were CEOs who had comprehensive knowledge of the recruitment process and their corporations' HR policies. They were asked if they were familiar with PATs and how they knew about PATs to find out their initial reaction and familiarity with the application of PATs. The reason to ask this question was that the literature did not identify any studies regarding the application of PATs and measurement of the effectiveness or non-effectiveness of PATs on the success of recruitment processes and organisational outcomes in Iranian manufacturing organisations. Also, no study was found that discussed the HR perspective regarding the application of PATs (see table 2.7). So, the responses gathered from this question provided rich primary data for the researcher to understand what is going on in the employment situation in Iran in connection with the use of PATs and determining the compatibility of a person's personality with his/her job.

Based on the participants' answers to this opening question, among the 28 interviewees, 8 of the participants (codes 3, 8, 16, 17, 19, 21, 24 and 27) had not heard about any forms of PATs, and the concept of personality tests was a new subject to them in this research data collection interview process. Chart 5.1 shows the percentage of interviewees' knowledge about PATs.

Chart 5.1: The percentage of interviewees familiarities with PATs



According to Namazie and Frame (2007), the first HRM conference was held in Iran in 2003 to raise awareness of the concept of HRM. Interviewees 5, 16, 24 and 25 expressed in their responses that they had attended all the HR conferences since 2003, and the subjects and content of conferences did not include personality tests and the necessity of considering personality fit with the job roles. This is consistent with the interviewees' responses as 8 of them had not heard about PATs at all and 12 of them knew about PATs through their personal interests and studies, and 4 of them were aware of PATs through HRM strategic plans and practices of the organisations, 3 of them through academic studies and one of them through an apprenticeship in a German company (see table 4.4). The responses indicate that there are no standard regulations regarding the application of PATs from Iran's ministry of cooperatives labour and social welfare, which is responsible for setting employment policies and rules for all Iranian organisations (there is no evidence on the ministry's website to confirm or support the application of PATs). Also, the available articles (Mirsepasi, 1999; Namazi and Frame, 2007) related to Iranian organisations' HRM system explored that one of the main challenges of organisations in Iran is setting HRM policies and the lack of HR strategic plans.

Under the category of RQ1, it was asked from the interviewees if they applied any forms of PATs by professional choice rather than directed by policy. However, of the 28 interviewees, 8 of them had not heard about PATs before the interview and from the remaining 20 who were familiar with the concept of PATs, 16 had applied the tests to find out their personality types. See table 5.2.

The reason to ask this question was that the literature review could not demonstrate the official application of PATs in Iranian organisations. So, the researcher was looking for the main cause of ignoring PATs in Iranian organisations' HRM systems. The interviewees' responses regarding this question demonstrate that managers (HR managers, personnel managers and CEOs) are not informed about or gained knowledge of PATs and have not applied the tests for themselves, so to appreciate the performance of PATs and evaluate the job candidates' personality fit through them is debatable.

Following the above finding, table 5.2 demonstrates that 7 participants had the experience of using PATs as they were part of the corporate HRM strategic plan, and a further 9 participants had used them based on their own preferences/knowledge. Twelve had no prior experience with PATs.

Table 5.2: The personality tests that interviewees applied for themselves to analyse their personality type

Interviewee's code	Type of the test	Based on personal studies	Because of the corporation's HRM strategic plan
2	Karmazi (The test was not recognised by the researcher, and the interviewee did not know the English name of the test)		Post hiring activity
4	He did not know the name of the test, and the test was applied by		

	a team of occupational psychology consultants in Iran		
5	MBTI		
6	MBTI		
7	MBTI and DISC		
9	MBTI		
10	The test was applied in one of his job experiences during the recruitment process, but he did not know the name of the test		
11	MBTI and DISC		
12	MBTI		
13	PDA (The test was not recognised by the researcher)		Post hiring activity
14	MBTI and Holland		
15	MBTI and DISC		
20	MBTI		
22	MBTI and DISC		
26	MBTI and DISC		
27	LSI, 360 degrees as an individual development		
Total: 16		Total: 9	Total: 7

So, it means although 19 interviewees (68%) had critical positions in management in organisations, however, they were not keen to gain knowledge of modern theories by themselves. This finding is consistent with the findings of previous researchers (Yeganeh and Su, 2008; Namazie and Frame, 2007) that HR departments in Iranian organisations are failing to apply modern HRM practices, and it seems HR managers do not have adequate authority and knowledge of HRM for this critical role. Also, Karatepe (2013) found poor human resource management practices in his data findings. As it is illustrated in the appendix 4.1 table, the most studied organisations are SMEs, and this finding has been discussed similarly by Psychogios et al. (2016) that in SMEs major decisions are usually made solely by the owner or managing director. 'Even in the minority of cases where HRM specialists are employed, it is still the owner or managing director who is generally seen to be in charge of HRM' (Psychogios et al., 2016, p. 3).

5.2.1 Understanding the contradiction and consistency in the answers of participants for RQ1

Considering and combining the literature review and data findings creates two different sides of contradiction and consistency. Both consistency and contradiction sides of the finding reveal a theory-practice gap (Greenway et al. 2019) which indicates a separation of theory knowledge and practical dimensions in Iranian universities and the manufacturing sector. As the theory-practice gap is not easy to measure and quantifiable (Duncan et al. 2007), it requires description, which has been discussed below.

The contradiction is that based on the question (what are the main challenges and pressures that you have been facing during the recent years regards to recruitment?) which was asked from interviewees (see section 4.11, organisations' challenges at the recruitment stage), 24 participants (86%) discussed lack of academic knowledge in job candidates as one of the most critical recruitment challenges which take time for their organisations to find the right person for the advertised job. However, 68% of the interviewees who were responsible for recruiting and were also dissatisfied with finding qualified job candidates could not demonstrate in their responses that they have personal interests and enthusiasm in learning and gaining the knowledge of HRM without the predetermined HRM plans which are imposed by the organisations' strategic plans.

So, it means that these individuals' knowledge frameworks (HR people) are based on the organisations' knowledge framework and defined by organisations' strategic plans and practices. Also, as discussed in section 4.2, among 25 participants who were HR personnel, only 2 of them had studied in the HRM field at universities. Interviewee 22 (HR consultant with PhD in HRM) response supports the above findings. He claimed that knowledge of such work in Iranian organisations is not the norm, and managers who have HRM knowledge are very few and have studied in fields unrelated to HRM. Also, he, as an HRM expert, claimed that even though he provided books on HRM subjects to HR managers to read, when they see that their organisations' system is being managed differently, they are no longer willing to continue reading those books. Also, he stated that although HR people could not just decide to implement PATs without corporate acceptance, but the content of the books included basic HRM knowledge, which is necessary for human resource managers and personnel was disregarded.

The consistency is that not only there is a lack of knowledge in the manufacturing sector regarding HRM, but also, in an academic context, there is little research about PATs in Iran.

For example, two researchers (Mirsepasi and Namazi) who had the most publications about HRM conditions in Iran had discussed the lack of the HRM field and did not provide solutions or practical plans to overcome the problems and the lack of HRM. This is also applying to the other researchers too. This finding is also relevant to the interviewees' responses in section 4.11. As they discussed that the educational system in Iran has grown disproportionately to the needs of industry, and there is a lack of communication between academic institutions and the business environment. So, it makes it hard to apply theories to practice. This finding demonstrates the challenge of balancing between the practitioner side and scholar side in Iran.

Only participant 11 could find a solution in their selection process to overcome the existing challenges between Iranian universities and the manufacturing sector. He stated that *'the universities' outcome is graduates with a low level of knowledge. So, our priority in hiring is with those who have a self-learning behaviour and do not just rely on the university courses and are looking for learning skills and knowledge rather than university-based learning.'*

Participants were asked if they performed any kind of PATs in the recruitment process for job candidates. The organisations which applied PATs at their recruitment stage were discussed in section 4.6 and table 4.5. Only 9 participants used PATs officially at the recruitment stage. The reason to look for the personality job fit at the recruitment stage is that the literature review demonstrated that personality is latent and inherent and lies deep below the surface of an individual's iceberg (Klein et al. 2004). It is what a person is within and is not liable to change quickly. Also, regarding Hofstede et al. (2005) research, individuals' behaviours originated from values, and values are challenging and complicated to change when formed in people. So, regarding Klein et al. (2004), to prevent the consequences of contradiction between an individual's personality and values with organisational values and the job's required personality, organisations apply PATs at the recruitment stage to achieve long-term effectiveness outcomes and success. As the literature could not clearly demonstrate the recruitment conditions in Iranian organisations, the researcher asked the interviewees their opinion on what the role of HR people in applying PATs is. The reason to ask this question was to determine how much they are determinative regarding the setting of rules in HR departments and determining the selection process. All the interviewees thought that

applying the PATs is the role of HR departments. However, only 9 from 28 interviewees (see table 4.5) consider personality job fit questions during the recruitment process.

5.2.2 The summary of discussed findings from RQ1 (How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in the recruitment process?)

The purpose of asking RQ1 and its subset questions was as a starting point to fill the gaps in Iranian literature regarding recruitment and HRM to find out to what extent those who are responsible for employment in the Iranian manufacturing sector are aware of PATs and applied PATs.

The results of RQ1 are divided into two groups of interviewees. **A)** those who were not aware of PATs (8 interviewees) and **B)** those who were aware of PATs (20 interviewees). See table 5.8 for the summary of participants' answers related to RQ1.

5.2.2.1 Group A

The finding shows that awareness of PATs does not have a high percentage, with 8 out of 28 interviewees (28% of the population) unaware of PATs. Of these 8 participants, 3 held degrees in engineering, 1 in economics, 1 in English language translation and 3 in business management. So, it is not unexpected that people who do not have an academic degree and knowledge in the HRM field will be aware of PATs as an auxiliary tool at the time of hiring. Also, the 3 participants who had studied management at the degree level stated that university courses had not included content related to personality tests and the possibility of applying them in the organisations to achieve personality job fit. Although the majority of interviewees acknowledged that the current policies of Iranian universities are incompatible with the manufacturing sector and could not provide a high degree of knowledgeable individuals for society, all 8 interviewees were over 40 years old. They had received their degrees at least a decade prior. Also, HRM conferences since 2003 in Iran have not spoken about including these tests as an auxiliary option in the employment environment. These results indicate that HRM science is not updated in Iranian workplaces. The literature review finding in section 2.5.1 and table 2.3 support this finding as they indicate that the science of occupational psychology and analysing the personality of people was developed during World War I, particularly in the armed forces, and in 1875 Jung's theory and then Myers Briggs'

theory of personality indicators in 1962 and since these early efforts (Chapter 2, section 2.5.1), a wide variety of personality scales and questionnaires have been developed (Table 2.2 and 2.3.) and this research data collection has been done in the year 2020. So, there is a gap of about 140 years regarding the application of occupational psychology in Iranian management systems.

Based on the findings of the literature and since the interviews were conducted in person at the interviewees' offices, the triangulation data collection method by applying observations has been added to develop a comprehensive understanding of the HRM environment in Iranian organisations and to test the confirmability of the information which were provided by interviewees' responses. So, based on considering both observations as the primary data and literature review findings as the secondary data, the HRM environment in Iran is primarily responsible for office and paper works including payroll and salary issues, rather than as a department with the authority of hiring decision making.

A significant point in the findings of RQ1 is that while 28% of the interviewees did not know about the PATs and did not check the personality job fit at the time of hiring, 63% of that 28% reported high job satisfaction in their organisations. The other 37% of that 28% did not measure job satisfaction at the same time did not report job dissatisfaction too.

So, can it be concluded that applying PATs is ineffective at the time of hiring and does not necessarily lead to job satisfaction after employment? This question cannot be answered definitively. The reason is that the 63% who reported job satisfaction in the responses to other RQ1 subset questions stated that they had plenty of job transfers after employment based on the personality of employees, and the job transfers were the result of job dissatisfaction. So, the contradiction in the participants' responses represents that although HR managers are aware of the effectiveness of PATs in achieving job satisfaction, only a few organisations apply PATs which indicates there is a lack of knowledge related to the human resource management field in the Iranian universities and manufacturing sector.

Another important point from the findings of those 8 interviewees was that two of them asked personality questions at the hiring stage to find out if the job candidates had the same or contradictory values with the values of the organisation, but the questions were not used to check personality job fit and the other 6 interviewees' criteria of hiring was based on only

KSAOs. Among the participants' answers, they acknowledged that the traditional management system was the main reason that they were unaware of the possibility of personality tests, while at the same time, their responses to another question were that they believed the responsibility of applying PATs is the responsibility of HR departments. So, another contradiction arises here if the participants confirm and know the responsibility of HR departments, why they do not take the responsibility and step in applying PATs?

5.2.2.2 Group B

This group includes the 20 interviewees who stated they were aware of PATs, with 11 of them (55%) applying PATs at the recruitment stage (officially and unofficially). They know PATs through HR academic studies, personal studies, and organisations' strategic plans (table 4.4). Of those 11 interviewees who applied PATs, 8 of them (73%) knew about PATs through personal studies, and only one of them knew about PATs through the organisation's strategic plan, and 2 of them knew about PATs through their academic studies. By synthesizing these primary data findings (very few interviewees' (2 out of 28) with related academic knowledge to their job as HR managers and the lack of updated HR modules embedded in management fields at Iranian universities) with available secondary data (lack of research in the field of HRM especially in employment relating to Iran), it is possible to explain why several of the HR managers were unaware of the existence of PATs. Also, regarding the finding in section 4.12 (the concept and application of strategic HRM in Iranian manufacturing organisations), 12 of them claimed that they are conducting strategic HRM in the HR action plans and recruitment approach to support their organisations' goals and outcomes; however, just 2 of them indicated that the implication of PATs was embedded in HR strategic plan.

This finding is consistent with Mirsepasi's (1999) research as he discussed there are three areas of HRM in Iranian organisations which have received the least attention, including attraction, recruitment, and selection. He believes the most essential criteria in the selection of people are personality, aptitude, interest, IQ, and skills which are effective in job fitness and career success have not been emphasized in most recruitment processes in Iran.

As a result, although these problems and the impact are highlighted and discussed in previous Iranian research, however, the cause of these problems was not clear, and the finding of RQ1 could fill this gap, making this a unique contribution to the field. The cause of these problems

appears to be the lack of knowledge and awareness of people who are responsible for employment. This finding can also be consistent with the findings of high-power distance (PD) culture societies like Iran. Aycan (2005) confirmed that in high PD cultures, the HRM planning is short-term oriented and might frequently change by the alternative decision-making of senior managers and CEO. Although the interviewees indicated that the HR departments are responsible for the implementation of PATs, however, the point-based system regulations based on the Ministry of Labour are skills, experience, and education. The job descriptions which are provided by the Ministry of Labour have not included personality tests, and it makes sense if HR managers know about PATs based on personal studies.

Table 5.3: The summary of answers related to RQ1

Number of HR people: 25	Number of CEOs: 3	
Total: 28		
Number of people with HR PhD degrees: 2		
Number of people with management field of study: 11		
Number of people with engineering field of study: 9		
Number of people with an economic field of study: 2		
Number of people with an unrelated field of study (English translation): 1		
Number of people who know or do not know about PATs	8 people had not heard about the concept of PATs at all.	
	20 people heard about PATs	2 people heard about PATs through their HR academic studies.
		13 people were aware of PATs through personal studies.
		4 people through their organisations' strategic plan.
	1 person from other sources.	
Number of people who applied PATs for themselves	9 people through their personal studies.	
	7 people through their organisations' strategic plan.	
Number of organisations that applied PATs at their recruitment stage	9 organisations applied PATs officially.	
	2 organisations applied PATs unofficially.	

Number of organisations that did not apply PATs at their recruitment stage	9 organisations recognise personality job fit based on their personal judgment.
	8 organisations did not consider personality criteria at all.
Number of organisations with job satisfaction	8 organisations had job satisfaction due to applying PATs at the recruitment stage. (Organisations 6, 7, 9, 11, 12, 14, 15, 20)
	3 organisations had high job satisfaction and did not apply PATs at the recruitment stage. (Organisations 10, 18, 28)
	5 organisations had job satisfaction however did not investigate if that relates to personality job fit (organisations 3, 16, 17, 19, 27)
Number of organisations with job dissatisfaction	1 organisation had job dissatisfaction as the result of disregarding personality job fit during their selection process (organisation 25)
	2 organisations with job dissatisfaction and applied PATs. (Organisations 22, 23)
	1 organisation had job dissatisfaction however did not investigate if that relates to personality job fit (organisation 1)
Number of organisations that did not investigate employees' job satisfaction	Organisations 2, 4, 5, 8, 13, 21, 24, 26

5.3 RQ2. What Are the Advantages and Disadvantages of Implementing Personality Assessment Tools in the Recruitment Process of Iranian Manufacturing Organisations?

The responses of those who knew about PATs (20 interviewees) indicate that applying PATs at the recruitment stage does not necessarily result in job satisfaction. However, personality job fit results in job satisfaction. Based on the collected data, this finding indicates that those who applied PATs were faced with the problem of personality job mismatch after the recruitment. To overcome this problem and enhance employees' satisfaction, they made a job transfer based on the person's personality. As a result, there are possible explanations to

support this finding regarding the applied PATs in Iranian organisations, including the following three:

- 1) In general, PATs cannot demonstrate personality job fit,
- 2) The PATs that were applied in the Iranian manufacturing sector were not standard,
- 3) The PATs that were applied in Iranian organisations were not localised, developed, modified and tested to ensure they fit with Iranian culture.

All three explanations are feasible. Regarding the first explanation, as was discussed in the literature review section 2.5.3, although there are researchers (Gellatly et al. 1991; Rothstein et al. 1994; Cascio, 1995 and Goffin et al. 1996) who supported the idea of PATs ability to predict future job performance, there are researchers (Barbian, 2001 and Bates, 2002) who stated that PATs are not standardised and having lack of validity to be able to determine person-job fit.

Regarding the second explanation, the literature could not demonstrate research related to the standardisation of PATs in Iran and who is responsible or which organisation has the authority to perform the PATs. However, the primary data through interviews indicated that some organisations are satisfied with the outsourcing of applying PATs by Iranian occupational psychologists' teams. However, there is no official information on how occupational psychologists' teams standardised personality tests in Iran. Four organisations that claimed to have received help from occupational psychologists' teams indicated that the tests were provided based on MBTI, Holland, and Enneagram. However, it could be argued that the success or failure results of the tests determine if they lead to personality job fit. Among these organisations, interviewee 15 claimed that the Enneagram test by the occupational psychologists was not successful and the HR manager had to apply a combination of MBTI, DISC and NEO. The other 3 interviewees claimed that the outcome of the tests (MBTI and Holland) have been successful, and they have decided to continue the same recruitment process.

Regarding the third explanation, the literature demonstrates that HRM is a Western concept that has happened from business evolution in the USA. So, to transfer HRM practices, including PATs, to a non-Western context like Iran, the concept of culture should be analysed

precisely (Yeganeh and Su, 2008). Even some researchers (Butcher, 1996; Butcher, 1996; Cheung and Cheung, 2003) confirmed that there should be a strategy for translation and adaptation of the tests in the cultural context and the test translator should be truly bilingual and have a bicultural experience who can make equivalence to the original terms when there are vague expressions. However, 7 interviewees (codes 6, 7, 9, 11, 22, 28) confirmed that the tests are applicable in Iranian culture. For example, some characteristics like talkative, sociable, action-oriented, and enthusiastic are the indicators of extroverts which is the same for all people worldwide. However, some other interviewees (codes 5, 12, 14, 26) confirmed that the PATs need to be localised based on Iranian culture. Because the average personality in one country often is different from the average personality in another. Interviewee 12 stated that even the tests in different parts of Iran need localisation as Iran is a big country, and people in the north, south, west, and east of Iran follow different cultures and traditions. Interviewee 14 stated that the tests need to be localised. Some personality types like introverts are not considered positive personalities in Iranian culture. So, the test respondents might conceal this type of personality for social desirability. The literature discussion in section 2.3 support this finding and the importance of culture and its impact on people's values and behaviours. For example, Hofstede's (2001) and Triandis's (2003) cultural studies show people have different values in different cultures, leading to different behaviours. Also, two concepts of goals and values which were studied by Nikolaou (2003) demonstrated that if employees' personal values are congruent with organisational values, and if the job position satisfies the goal, they set for themselves, the level of job satisfaction increases.

The responses of interviewees regarding the advantages and disadvantages of applying PATs at the recruitment stage aligned with the data in the literature review section 2.6 (critical viewpoints on the effectiveness of applying PATs at the recruitment stage). However, no interviewees were opposed to applying the PATs at the time of hiring. Even those who performed the tests, both officially and unofficially, believed that the tests could be a helpful tool, and they did not intend to remove the tests at the time of hiring. Sixteen from 28 interviewees (57%) confirmed that application of PATs leads to personality job fit, 8 out of 28 interviewees (28%) were positive moderate and confirmed that PATs are an auxiliary tool and do not provide a full understanding of a personality, 3 out of 28 (10%) were moderate neutral opinion and confirmed that it depends on its applicability (see section 4.10, theme7). This

possibility means that sometimes it is useful, and for some jobs, it is not. One interviewee (3%) had a negative moderate opinion and confirmed that PATs could predict the personality of people; however, based on his experience, many individuals' personalities changed after recruitment. To validate the interviewees' answers, it was investigated which of the interviewees performed the tests and on what basis they believed the tests could indicate personality.

Table 5.4 shows that in all the responses, there is a divergence of opinion regarding the inability of PATs to predict individuals' personalities. Only one interviewee (code 26) had a negative moderate opinion. However, he did not apply PATs officially and, by asking some personality questions based on his experience, tried to understand job candidates' personality job fit.

Table 5.4: The link between interviewees' opinions and the application of PATs. (The numbers in the table are the interviewees' codes)

	Proponents	Positive moderate	Neutral moderate	Negative moderate
Officially Applied PATs	6, 12, 14, 15, 22	4, 7, 23	11	
Unofficially Applied PATs	20		9	
Consider personality criteria based on personal experience	1, 2, 5, 10, 18	24, 25		26
Personality criteria have not been considered	3, 8, 16, 27, 28	17, 19, 21	13	

The results of RQ2 based on the participants' responses indicate that there are no outweighed advantages and disadvantages of PATs (see section 4.8) for Iranian organisations in the manufacturing sector. The results are divided into two groups: those who applied PATs (officially and unofficially) and those who did not apply PATs. Since 17 from 28 (61%) organisations have not applied PATs (see table 4.5) so far, subsequently, they cannot be aware of the methods of operating the tests and their results in practice. So, their responses to the pros and cons of the tests cannot be reliable. The findings of this question can be used

as the background for another research study in terms of applying the tests in organisations and comparing the outcome of the recruitment with the conventional recruitment methods.

The responses of those who applied PATs (11 organisations) indicate that the application of PATs caused a high level of efficiency in the shortlisting process, and despite some disadvantages (the possibility of social desirability, time-consuming, extra costs for the organisation) that they mentioned the managers have a high tendency to continue applying PATs. They have concluded that PATs as a method in management science provide managers with a system of support by providing a better view of the personality facts, and it acts as a light in the darkness. They also discussed that the tests helped employers to have formal and rational reasons why they select a person rather than another person, and that helps them to overcome nepotism and cronyism issues and reduce subjective and wrong judgments. This finding is consistent with the literature review as some researchers (Budhwar & Khatri, 2001 and Meshksar, 2012) discussed that in collectivism and high PD cultures like Iran, the socio-political connection and family/friend recommendation have a direct effect on selecting the candidate.

The interviewees' responses indicate that social desirability is one of the main issues of Iranian society and has been identified as one of the disadvantages of applying PATs in Iranian organisations, as PATs increase the risk of social desirability in recruitment. Iranian social desirability can be categorised into two groups based on the interviewees' responses. 1) Unconscious social desirability and 2) Conscious social desirability.

- 1) The Iranian unconscious social desirability has a cultural root that has been institutionalised in Iranian behaviour since childhood along with other cultural factors. To be viewed favourably by others and show good behaviour of yourself is a cultural educational feature that has created two-dimensional personalities in society, and what society and others think of you and how they will judge you is very important to Iranians. This cultural factor causes a lack of personality insight because the way others think about you is preferable to what your real personality is. Considering this issue in Iranian culture, it cannot be expected that job applicants in responding to the PATs have a good understanding of their true personalities. As a result, the PATs cannot provide valid and reliable results for the recruiters. For this reason, the interviewees who applied PATs at the recruitment stage acknowledged that

personality tests could be used as an auxiliary tool to the interview but could not be an accurate and clear source to predict a person's personality and job fit. Also, according to Aycan (2005), in terms of Iran's cultural dimensions, it should be considered that in the selection process of high-power distance and collectivist cultures, people are less likely to express their discomfort about the inequities in selection criteria and conceal their needs and wants.

- 2) The Iranian conscious social desirability is related to the issue of unemployment and high economic inflation in Iran. Due to high inflation and the economic problems caused by the US economic sanctions on Iran, there is a high level of stress in job interviews for job applicants as getting a job and earning money is a vital factor for them. Therefore, not unexpected for recruiters to face a high level of social desirability in interviews. According to the statistical centre of Iran (2021) report, the 2021 unemployment rate for the age of 15 and above is 9.6% of the population. The population of employees aged 15 and over in 2021 was equal to 23 million and 263 thousand people, which has decreased by more than one million people compared to the previous year. The study of employment in major economic sectors shows that in 2021, the service sector with 49.3% has the highest share of employment, the industry with 33.3% and agriculture with 17.4%. However, the Parliamentary Research Centre of Iran has announced that the unemployment rate is 2.5 times the official statistics of the Labour Office. This erroneous statistic by the statistical centre of Iran, which is trying to show the improvement of the economic conditions of the society, expresses the factor of social desirability even in Iranian official and governmental organisations.

5.4 RQ3. Is It Appropriate and Necessary for Iranian Manufacturing Organisations to Apply Personality Assessment Tools in Their Recruitment Process?

To understand the necessity of implementing PATs at the Iranian manufacturing organisations, the below sub-questions were asked to cover all aspects of RQ3.

1. If there is a difference in the size of the organisation and the number of employees to apply PATs.

2. If there is a difference in HR manager's decision-making with or without applying PATs in the recruitment process and what kind of PATs can be more essential in recruitment, and to what extent do PATs reflect the desired attributes of individuals?
3. The key characteristics of applying PATs in creating organisational competitive advantages.
4. The role of applying PATs in improving HRM strategic plans.
5. If HR managers need to use PATs as a helping tool in recruitment.
6. If low job satisfaction results from the wrong recruitment process.
7. HR managers' perspective if the application and considering PATs results in recruitment has the priority or functional criteria.
8. If Iran's cultural issues impact the application of PATs in the recruitment process.

5.4.1 If there is a difference in the size of the organisation and the number of employees to apply PATs at the recruitment stage

One of the sub-questions which was asked from interviewees to find out the necessity of applying PATs relates to the size of organisations, whether all the Iranian manufacturing organisations apply PATs in recruitment and whether there is a difference in the size of the organisation and the number of staff. The answers were divided into two categories. Those who believed that only large organisations need to perform these tests and those who believed that all organisations, regardless of size, should do so at the time of employment. Concerning this question, the key findings from the interviews are highlighted below.

1. In small organisations like a workshop unit with a maximum of 20 people, it is not necessary to perform PATs at the recruitment stage as there is a lot of interaction between people, and they know each other well and identifying the problems is easy for a manager and can be acted upon promptly. However, the larger the organisation, the more important the PATs are. Because in post-employment, the individuals might get lost in the working shifts of the factory, and it won't be easy to follow them and examine their behaviour to achieve personality job fit. In a large organisation with 2,000 people, it isn't easy to constantly analyse everyone, so it is necessary to consider personality job fit at the recruitment stage.

2. The quality of work matters, not the size of the organisation. Because the size of the organisation may be changing regarding their 10 years growth plan. So, managers should be futuristic and consider the application of PATs as usually organisations grow.
3. PATs application depends on the organisations' policies on how they want to retain their employees. For example, organisations that sign a three-month contract might not need PATs, and it is a waste of time to apply PATs for them. Organisations with a long-term perspective, both small and large, benefit from it.
4. Organisations that need skilled and expert employees need to use PATs more than organisations that need workforces with a set of regular or unchanging activities or procedures. Because skilled labours need to carry out more complex physical or mental tasks than routine job functions, which require the personality to comply with the job description.

5.4.2 The nexus between employees' job satisfaction and considering PATs at the recruitment stage

One of the factors that indicate the necessity of applying PATs is employees' job satisfaction and engagement. In all the responses, it was acknowledged that personality job fit boosts job satisfaction and engagement, which was aligned with the literature finding in section 2.5.4 (the outcomes of person-job fit for an organisation). For example, Kristof-Brown et al. (2005) and Boon et al. (2011) demonstrate the impact of person-job fit on the outcome of the organisation in HR concepts as they believe person job fit impacts an individual's behaviour and attitudes, which results in a high level of job satisfaction as the person-job fit outcome.

Also, participants were asked if they had any experience of low job satisfaction of employees attributed to recruitment processes that did not include PATs and disregarded the fitness between personality and job role description. Also, in the following, it was asked from them how they resolved the job dissatisfaction to retain the employees.

Synthesizing the findings which are provided in appendix 5.1 (table demonstrates the link between job dissatisfaction and wrong selection) and 4.5 (table demonstrates the application of PATs at the recruitment stage) divides organisations into three groups (1) those who expressed employees with high job satisfaction, (2) those who stated employees with low job satisfaction and (3) those who have not measured employees' job satisfaction in their organisations.

1. Among 28 interviewees, 9 of them who applied PATs (4, 6, 7, 9, 11, 12, 14, 15, 20) had moderate to a high level of job satisfaction while 4 of them (4, 11, 14, 15) claimed that the job satisfaction was in result of the proper selection process as they considered personality job fit and other required job specifications in the selection process. Also, 5 out of 28 (3, 16, 17, 19, 27) claimed that there is job satisfaction; however, they did not consider personality criteria and did not apply PATs. In addition, 3 out of 28 (10, 18, 28) claimed that there is job satisfaction, and they considered personality criteria questions at the recruitment stage based on their experience. These 3 interviewees claimed that considering personality job fit helped them have fewer wrong decisions for choosing suitable candidates. However, they have done job transfers plenty of times after recruitment to fit an individual's personality with the new job role specifications.
2. Regarding job dissatisfaction, 2 of the respondents (22, 23) who applied PATs reported employees had job dissatisfaction. For example, interviewee 22 stated that HR people do not have the authority to shortlist, so it does not make sense if they apply PATs. Also, interviewee 23 reported that although they applied PATs, they needed an expert team to analyse job satisfaction which they do not have. Also, 2 of 28 (1, 25) claimed job dissatisfaction, and they considered personality criteria questions at the recruitment stage based on their experience.
3. Seven participants (2, 5, 8, 13, 21, 24, 26) did not measure job satisfaction in their organisations. However, 4 of them (2, 5, 24, 26) considered personality criteria questions based on their experience at the recruitment stage.

From the above findings, it can be concluded that the official and unofficial use of PATs at the recruitment stage has led to the matching of a job candidate's personality to his/her job responsibilities, which in turn has led to increased job satisfaction. Also, the finding indicates that considering personality criteria at the recruitment stage just based on the personal perspective of recruiters (not based on the formal PATs) has helped recruiters with a lower error rate in choosing the right person for the job. However, doing the job transfer after recruitment to fit an individual's personality with the new job role specifications indicates that those personal perspectives of recruiters have not been very effective. However, the way out of moving employees to other work units based on their personality characteristics indicates the necessity of examining the personality of individuals at the recruitment stage.

Also, the finding from those who considered PATs at the recruitment stage demonstrates that the number of people who leave the organisations has not reduced. However, job efficiency has increased since considering the personality job fit at the recruitment stage as a criterion for shortlisting. For example, interviewee 7 stated that they had applied PATs officially for a year, and the post-hire results were positive. The directors are satisfied compared to a year ago, and they believe that employees' job performance has improved. Also, in addition to enhancement to job efficiency, interviewee 15 stated that by applying PATs at the recruitment stage, job candidates see the organisation as a reliable and smart working place, which makes them work with higher efficiency in the future.

It should be noted that even in Iranian organisations that apply PATs officially, there is still the possibility of personality tests being ineffective at the time of employment because two of the interviewees admitted that the lack of power and authority for HR personnel in decision-making processes makes any use of HRM methods ineffective. This finding is aligned with Namazie and Frame's (2007) and Yeganeh and Su's (2008) research which demonstrated that HR departments are devoid of applying modern HR practices, and it seems HR managers do not have adequate authority and knowledge of HR for this critical role in Iranian organisations.

It can also be concluded from these findings that even in organisations where there is a lack of knowledge and understanding of the use of personality tests, HR managers, based on their work experience, have concluded that examining the compatibility of personality with the job and the organisation is necessary at the time of employment. However, the meaning of personality adaptation is different for some of these recruiters. For example, the responses of those who examined personality job fit based on their personal judgments and experiences and not an application of any kinds of PATs, the personality job fit in their opinion means when a person adopts him/herself with the organisational values or the business owner value's mindset. For example, interviewee 10 stated that in job interviews, he asks the job candidates, *'how do you spend your 24 hours?'*. So, based on this question, he finds out what the priority of a person during the day is. Interviewee 28 stated that HR managers must have high public relation skill; however, financial managers do not need this skill at a high level. So, he asks several questions during the recruitment interviews, such as *'what are your personal studies subjects'* or *'how many friends do you have?'* If the job candidate answers, I have old

friends from thirty years ago and am still in contact with them; this means the person has high public relations.

Among these 11 interviewees who were considered PATs at the recruitment stage, 9 of them are HR managers, and 2 of them are HR experts. As there is a contradiction between HR managers' responses and HR consultants' responses regarding job satisfaction, table 5.5 illustrates their perspectives. The 9 HR managers claimed a high level of job satisfaction at their organisations; however, the 2 HR experts who advised and observed various organisations claimed that job satisfaction in Iranian organisations is low.

Examining the answers of both groups indicates that the measurement of employees' satisfaction is based on the average number of people leaving the organisation annually (turnover). This means that the lower the number of people leaving the organisation per year, the higher the job satisfaction. However, from the point of view of some of the interviewees, measuring employees' satisfaction depends on the type of job. For example, since the payment of the sales team is determined by the percentage of sales, if another organisation offers a higher percentage to these people, they will immediately leave the organisation to start working in the new organisation. But for the workforce that is in the production and research and development departments, the credibility and reputation of the organisation is a priority and makes these people last. Therefore, Iranian manufacturing organisations undertake notarised commitments (promissory note) of at least three years to stabilise the retention of workforces and prevent excessive turnover. Because they believe that the costs of educating and training people in the first year should be returned to the organisation itself. It should also be borne in mind that several interviewees acknowledged that in the current context of the Iranian economy, which has been affected by the USA imposed sanctions (see table 4.8, interviewees' comments about the impact of sanctions on Iranian manufacturing organisations), the workforce is highly afraid of losing their jobs. As a result, people will likely remain silent even in the face of high job or organisational dissatisfaction to maintain their monthly income because of low job security.

This is also consistent with the findings of Budhwar and Mellahi (2016), that clearly articulated sanctions caused challenges for Iranian organisations. Therefore, considering the two factors of social desirability and economic problems in Iran, the nexus between PATs and employee satisfaction may be assessed incorrectly at both times of recruitment and post recruitment

process. Because if PATs are performed at the time of employment, due to economic conditions, people may not be completely honest in answering the tests and direct the answers in a way that is satisfied by managers and from the managers' point of view, it is also possible that although job satisfaction has been surveyed anonymously, employees do not fill out satisfaction surveys honestly to keep their jobs at the post recruitment stage.

Table 5.5: The interviewees' responses who applied PATs at their recruitment stage regarding job satisfaction. (The numbers in the table below are the code of the interviewees)

The eleven interviewees who applied PATs at the recruitment stage	
HR managers perspectives	HR consultant perspectives
4: He stated that they measure job satisfaction by job satisfaction survey and consider job satisfaction high when it is above 50%, and when it is below 50%, they try to apply methods to improve job satisfaction.	22: He claimed that job satisfaction and organisational commitment are subjective and subject to various factors, and the measurement method may not be accurate. They do not have the standard satisfaction survey that applies to all organisations equally. Job satisfaction cannot be relied upon until the measurement of job satisfaction is periodic and continuous. He mentioned that he can now reward his staff and then distribute the job satisfaction form or cut the pay and distribute the form. It means that he can get two different job satisfaction from an employee in the same environment but with two different incentives. The job satisfaction that employees claim is relative, and partly because employees believe even a job, they are not satisfied with is better than no job.
6: She stated that since the last year, among 100 employees, only 3 of them were dissatisfied.	23: At least 50% of people are not in their position of expertise, and this is a start of dissatisfaction. The main reason is that people are only looking to get hired, especially in the last 15 years. Previously, people had more choices, which could have been a better option. The first cause of dissatisfaction is that you only had one career choice. Job satisfaction surveys require high expertise and are not designed properly. Employees are just glad they are at work. This is not job satisfaction. Job satisfaction is when you come to work thinking about how to upgrade your job and go beyond your field of responsibility. Of 350 current employees, perhaps 10 of them ask questions and have a personal study that shows they are interested and wants to grow. It shows that they have inner joy and are satisfied.

7: job satisfaction was 60% to 70%.	
9, 11, 14, and 15: job satisfaction was 70% to 80%.	
12: In the last two years, only 4 out of 300 employees had significant job dissatisfaction.	
20: The interviewee was not sure about the level of job satisfaction at their company. However, he stated that job satisfaction depends on three criteria what country you are living in, what your previous job was and what is the condition of those co-workers with the same input and output.	

5.4.3 How do Iran's cultural issues impact the application of personality assessment tools in the recruitment process?

As was discussed in section 2.8, there is a direct link between PATs and cultural context. The personality of people is influenced by cultural context. To measure the personality of non-Western people (Iranian) with Western mindset personality tests raises the concern if the application of PATs is proper and necessary at the recruitment stage of Iranian organisations.

According to the participants' responses, the issue of culture should be seriously considered in the implementation of PATs in Iranian organisations. For example, being introverted is not a positive feature of Iranian culture. People try to appear more extroverted in society as extroverted people are more attractive in terms of personality. Therefore, due to the high level of social desirability in Iran, interpreting the answers to the questions of extraversion and introversion of personality tests may cause errors. Also, one of the prominent characteristics of the Iranian people is a lack of explicitly in their needs and wants because of the social desirability attitude. Interviewees were sceptical if Iranians reveal their true selves during the first encounter. So, conducting and interpreting the PATs must be done by a person with experience in human resources and occupational psychology. Another cultural factor that might cause an error in implementing the PATs in Iran is the lack of the young

generation's awareness about their abilities and personality traits because there is a cultural issue in which families raise and support children without considering their age. Men and women might be around their thirties to forties and still get financial support from their parents. Unwillingness to become financially independent leads to an unwillingness to find the abilities and talents of young people because young people are always sure that there is somebody in the family to support them financially. So, the lack of awareness of personality traits can lead to wrong answers on personality tests.

Another cultural issue that might show the importance of considering cultural aspects in applying PATs is problem-solving skills. For example, interviewee 23 discussed the lack of problem-solving skills since childhood in Iranian culture. So, people might mostly not solve problems that they face, and they just ignore them. Therefore, a problem-solving factor of a personality test, there might be an error in understanding the test for respondents. This finding is consistent with other researchers (Tung, 1990; Björkman and Lu, 1999; Stone et al., 2007). They discussed that in a culture where analytical thinking skills are highly developed since childhood, they do not consider analytical problem-solving tests in selection as they already know people have this skill. Also, as the primary data shows, eight interviewees (3, 8, 13, 16, 17, 19, 21, and 27) did not consider personality criteria at all in the recruitment process, and they just considered factors of knowledge and skills or some factors which are not relevant to the job candidates KSAOs. For example, interviewee 3 stated that *'we consider how close is the place of living of a job candidate to the factory is to reduce the organisation's pick-up service costs.'* This finding confirms that criteria like problem-solving have not been considered at all. Another example that identified the necessity of considering cultural aspects of Iran is regarding interviewee 13 response as he claimed that some words in PATs need proper translation and to have word by word translation cannot complete the meaning. For example, 'workaholic' might consider a positive meaning in Western mindset culture, which somebody enthusiastically devoted to a particular activity, but in Iranian culture, the word-by-word translation of 'workaholic' has a negative meaning (work addiction) which might make the job candidate in doubt to answer this question. This finding is consistent with Butcher's (1996) and Cheung and Cheung's (2003) article as they discussed the necessity of a test translator who should be truly bilingual and have the bicultural experience who can make equivalence to the original terms when there are vague expressions. However, the primary

finding from participants shows that this issue has not been considered in any Iranian organisation.

5.4.4 If there is a difference in HR manager's decision-making with or without applying PATs in the recruitment process and what kind of PATs can be more effective in recruitment, and to what extent do PATs reflect the desired attributes of individuals?

As table 5.6 indicates, the personality tests which have been applied in Iranian organisations during the recruitment process are MBTI, DISC, Neo, and Holland. Despite the wide range of PATs which also has been displayed in Appendix 2.1, applying only four types of tests indicate different findings.

Finding One: According to the Pareto principle²⁴, it can be said that 20% of personality assessment tests are used in 80% of cases. This means that if there are 100 tests, 20 of them will work in 80% of cases which applies to the four tests used in Iranian organisations. However, it should be noted that participants acknowledged that they were not aware of any other type of tests. Due to the popularity and availability of these four types of tests (see Appendix 2.1), HR managers may have not increased their knowledge of pre-employment personality tests and are only aware of a limited number.

Finding Two: The correlation of the tests should also be considered. For example, it should be considered if MBTI and DISK tests examine the same personality dimensions. If the tests are highly correlated, the interpretation is that each test is written for a group, culture, or community, and their results and methods are the same. However, if the correlation is low, it means that the knowledge of the Iranian organisations is inadequate on a series of tests, and they have not been able to use these tests. In this case, new tests can be introduced into Iranian organisations that are not correlated with others and have their own purpose. Then it is easier to determine the sensitivity and specificity of the other tests.

The primary data demonstrate that Iranian organisations use ipsative (MBTI, Holland, DISK) instead of normative tests. As discussed in chapter two (section 2.7), well-designed and scientifically validated normative and ipsative tests in pre-employment assessments help recruiters identify and assess candidates' talents and fitness for a specific job. According to

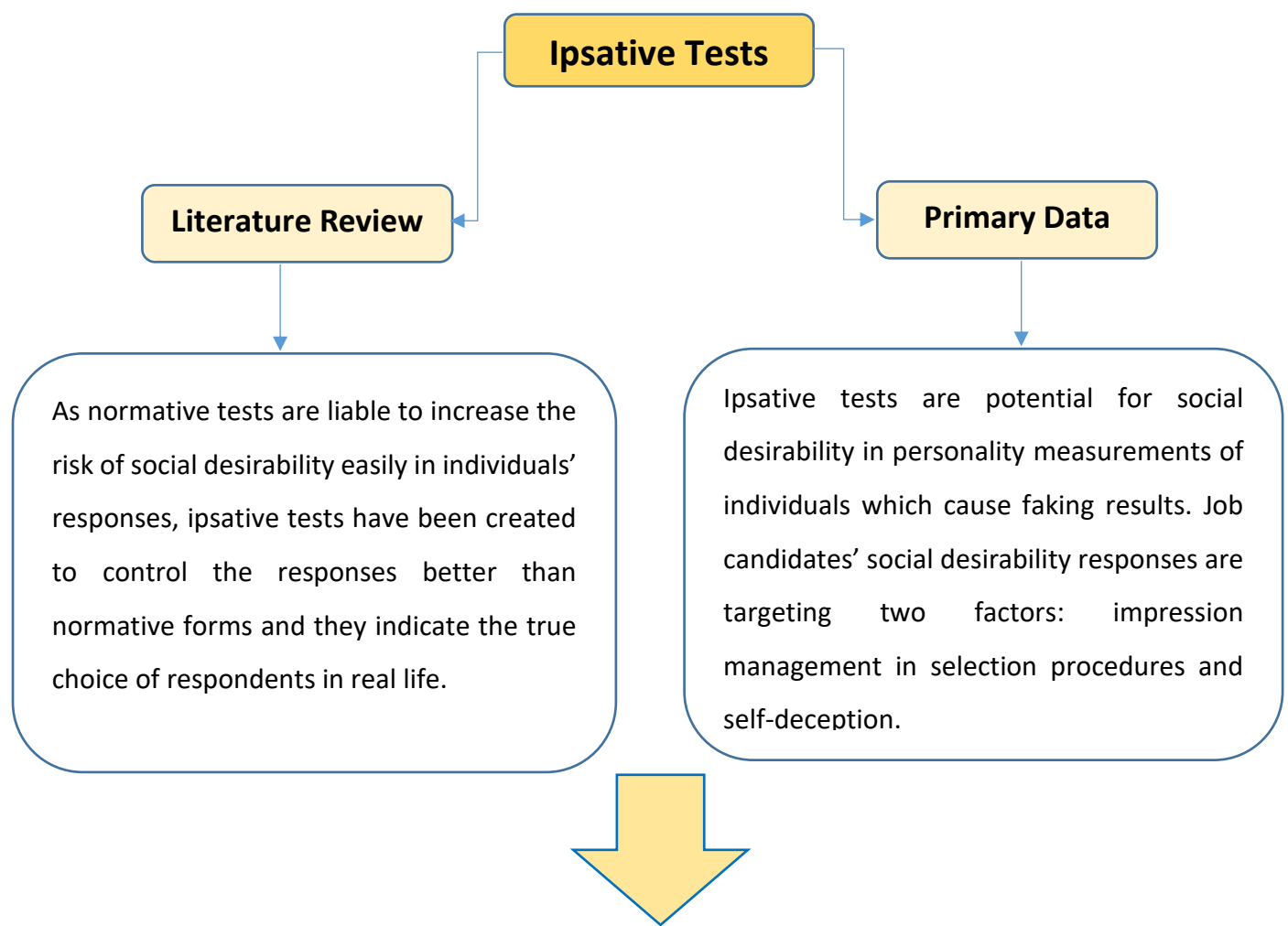
²⁴ The Pareto Principle referred to the observation that 20% of the input creates 80% of the result. The Pareto Principle is the observation that most things in life are not distributed evenly. (Sanders, 1987)

Eijnatten et al. (2015), normative tests present an inter-individual aspect, and ipsative tests present intra-individual aspects. The literature review chapter section 2.7.1 demonstrates that one of the reasons for creating ipsative tests is that normative tests are liable easily to increase the risk of social desirability in individuals' responses. Also, the primary data based on the interviewees' responses demonstrate that one of the disadvantages of applying PATs at the recruitment stage of Iranian organisations is the possibility of social desirability in responding to the tests. By comparing the findings of the literature review and primary data from this study, two key issues are identified. See figure 5.1 (page 178).

Finding Three: Another important interpretation is that when tools and methods are not widely recognised in a society, there is no development of tools and their proper use, and there is no expert in applying the tests. To have a correct assessment in the pre-employment process, the research background of the tests is necessary, which can lead to the right decisions in the selection process; otherwise, the test may give an incorrect assessment (Remann and Nordin, 2021). For example, if in a construction project, hand tools are still used, the existence of different types of automatic tools is not helpful as people use the old tools and have no expertise in new tools. However, if an automated tool specialist comes to the project, he/she can introduce different types of automated tools and change the project path. So, the lack of personality assessment expertise in Iranian organisations might cause the lack of knowledge of HR people about the variety of PATs and how they can change the pathway of the recruitment system. See table 5.7 for the interviewees' reasons why they did not apply PATs at their organisations; however, did job transfer based on the personality factors after employment.

Finding Four: Participants were asked if they would suggest an alternative test instead of the current test, and they were unaware of other types of tests. It can be concluded that personality testing in Iranian organisations is not formed as a piece of knowledge and is used only as a testing tool. It can also be inferred that testing has no specific purpose because if it had a purpose, its results would have to be traced, and testing alone is a formality process.

Figure 5.1: Comparing literature review and primary data findings regarding ipsative tests in Iranian organisations



As normative tests are liable to increase the risk of social desirability easily in individuals' responses, ipsative tests have been created to control the responses better than normative forms and they indicate the true choice of respondents in real life.

Ipsative tests are potential for social desirability in personality measurements of individuals which cause faking results. Job candidates' social desirability responses are targeting two factors: impression management in selection procedures and self-deception.

1. Based on the interviewees' experience in performing ipsative tests, these tests have not prevented social desirability. This finding is not aligned with literature review finding. However, it should be noted that this finding is only 25% percent of the participants' responses because the other 75% participants did not use these tests at all.
2. Participants were not aware of normative test and the differences of ipsative and normative. Also, they were not aware of any other alternative tests. This finding indicates participants' lack of knowledge about pre-employment personality assessment tools.

Finding Five: Key people working in the HR departments do not have adequate knowledge of HRM and consequently personality tests. HR managers are not fully aware of the variety of tests. However, all the interviewees who used the tests acknowledged that the tests certainly had a positive effect on how they made their decisions and wanted to keep applying them. They stated that the tests reduced the selection error, and the individuals who were selected based on the personality tests were in line with the job specifications and had higher work efficiency rather than others. Another reason which indicates the necessity of applying PATs is the responses of interviewees who remarked that PATs as a kind of scientific method reduce personal and wrong judgments of recruiters. Also, in some cases, it prevents nepotism and cronyism effects in shortlisting criteria.

Finding Six: To find out which PATs can be more essential in recruitment and to what extent PATs reflect the desired attributes of individuals in Iranian culture, among the personality tests available in the literature review as well as the four tests used in Iranian organisations, no research was found that shows the cultural compatibility with Iran. According to Cheung (2009), the cultural perspective in personality assessment is essential as culture affects personality in different ways. The imported Western personality assessments need an accurate translation from the perspective of linguistic equivalence. For example, the aspects like idioms, vocabulary and grammatical structure in Western PATs should be examined if they are applicable to Iranian culture. Even the retranslation of a PAT translation (back-translation) should be considered by bilingual translators who are aware of both Western and Iranian culture. Back translated version of PATs considers cultural psychology approaches such as etic and emic²⁵. Since personality traits predict job performance, considering these two approaches helps to better understand the context of cultures (Ion et al., 2016).

²⁵ According to Fetvadjev and Vijver (2015), 'The terms emic and etic were borrowed from the study of linguistics. Specifically, etic refers to research that studies cross-cultural differences, whereas emic refers to research that fully studies one culture with no (or only a secondary) cross-cultural focus.'







As discussed in chapter two, section 2.3, national culture is the stable behaviour, values, beliefs, language and norms of people since their childhood that is embedded deeply in the way they make their decisions and behave in their everyday life. So, the reliability and accuracy of the PATs that have been written with the Western mindset and have been used in Iranian organisations must be carefully examined in order to conclude whether the Western meanings of the terms and words used in these tests have the same meaning for the mindset of an Iranian.








Table 5.6: The type of personality test which has been applied officially and unofficially at the recruitment stage

Interviewees' Code	The type of personality test	Job satisfaction as the result of applying PATs
4	A team of occupational psychologists provided personality tests for the organisation. However, the interviewee did not explain more. So, it is unknown.	Yes
6	With the cooperation of an occupational psychologist, the organisation has provided a personality test specifically for their organisation based on the MBTI test.	They did not measure if these two factors relate to each other
7	MBTI	They did not measure if these two factors relate to each other
9	MBTI	They did not measure if these two factors relate to each other
11	NEO, DISC and MBTI	Yes
12	MBTI	They did not measure if these two factors relate to each other
14	With the cooperation of an occupational psychologist, the organisation has provided a test that is a combination of MBTI and Holland.	Yes
15	A team of occupational psychologists applied the Enneagram personality test, which was unsuccessful. So, the HR manager uses a combination of MBTI, DISC and NEO.	Yes

20	With the cooperation of an occupational psychologist, the organisation has provided a personality test specifically for their organisation based on the MBTI test.	They did not measure if these two factors relate to each other
Total of organisations that applied PATs: 9	Total of applied tests: 4	Total job satisfaction: 4

Table 5.7: The reasons were given by nine interviewees for not applying PATs in their organisations but did job transfer base on personality factors after employment.

Interviewees' Code	Reasons for disregarding the PATs as a selection criterion	Classification of answers		
		Lack of awareness	Localisation	Other reasons
2	<i>'The tests should be analysed based on Iran's culture as the children training in dos and don'ts in Iranian culture is different from the other cultures.'</i> In addition, he was not aware of the possibility of applying PATs at the recruitment stage; however, their organisation applied the Karmazi test after employment to improve their current situation of employees' work efficiency.			
5	<i>'With the shortage of human resources in terms of expertise and experience, using these tests at shortlisting is not a priority. Also, these tests did not localise to Iranian culture. Simple management methods have not been implemented, so do not expect organisations to use personality tests.'</i>			 (There is a lack of expertise in job applicants, so applying PATs is not a priority)
10	<i>'Our lack of expertise and knowledge about the personality tests concept caused us to ignore the tests. This interview was a spark for us to ask an HR expert to start the application of PATs.'</i>			
13	<i>'The organisation has not recognised the necessity of applying these tests, and HR</i>			

	<i>people do not have the power of setting rules.'</i>			(HR people are not determinative and last decision-makers)
16	She heard something about the PATs.			
17	<i>'The PATs have not been applied because of the traditional management perspective in selection.'</i>			
18	'The available tests in Iran are not standard and reliable. Also, we have the problem of nepotism.'			 (There is a high level of nepotism in the organisation, so the PATs criteria have been ignored)
26	<i>'The tests are not an indicator of the personality, and they need to be localised by Iranian culture.'</i>			
28	<i>'There is unfamiliarity with PATs knowledge in organisations. PATs are new subjects and it's just getting more popular.'</i>			
Total: 9		Total: 6	Total: 4	Total: 3

5.5 Further Key Findings of Study and Contribution to the Field

Although the main topic of this research was exploring the efficacy of applying PATs at the recruitment stage to achieve personality job fit, due to the inductive approach of this study, other related areas of Iran such as HRM policies, culture, politics, history, and economy have also been observed and found through the primary data collection process. These key findings have contributed and added knowledge to the field (see figure 1.1, multi-concept approach of this research).

Considering that the employment system in organisations is one of the main tasks of the HR departments, before examining the system and methods of employment in Iranian organisations, it was necessary to understand the concept of human resources fully. The below key findings and explanations have not been identified in the literature study and have been developed through interviews and observation in order to reach conclusions.

1. The concept of human resources is still unknown to some organisations, which means that there are still organisations in Iran that do not have a department called human resources and, in the name of administrative affairs, are dealing with issues such as payroll and pension.
2. HRM in Iranian organisations is a new concept, and since 2003 it has been officially introduced through annual conferences in the country. However, since 2003 there has been no integrated system in the implementation of HR policies in organisations that recognise this concept officially. So, HRM has not still considered one of the most important and powerful non-traditional competitive advantages (Florea, 2013). Traditional sources such as financial capital, business location, advanced production machines, and organisational structure are considered certain competitive advantages. Also, the data show that the recruitment system is integrated. However, as effective recruitment includes considering the minimum cost with maximum achievements and quality to minimize the risk of choosing the wrong candidate (Waxin and Barmeyer, 2008; Florea, 2013), no specific methods and strategies recognised to build up more effective, reliable and valid recruitment and selection to keep their competitive advantages in Iranian organisations.
3. According to the literature review, the purpose of recruitment is different across cultures (Aycan, 2005). The data indicate that the purpose of recruitment in Iranian organisations is to attract individuals with a high level of knowledge, skills and abilities to increase organisation work efficiency rather than with the purpose of reducing the unemployment rate and poverty (Aycan, 2005).
4. Literature review recruitment research indicates that the criteria for selecting the right person have been specified in two groups of functional and psychological. The primary data indicates that the psychological aspects, which are the elements that are not observable and measurable easily in a face-to-face interview, such as personality

aspects, have been considered a key factor in very few Iranian organisations and in some organisations, this concept is totally unknown, and in some organisations, this subject is in its try and error process. Although the literature on personality studies goes back to the 8th-9th century BC, the occupational psychology topics in Iran's work settings is still considered a new and modern subject to help employers in the recruitment process choose candidates whose personality is compatible with the requirements of particular positions (Stabilet, 2002). Therefore, gathering and organising information about a person in the expectation that this information will lead to a better understanding of that person through PATs has not been set officially in Iranian organisations' HR departments.

5. Although participants acknowledged that well-developed PATs at the recruitment stage determine personality job fit and literature indicates that about 20,000 new psychological tests are developed each year (Cohen et al., 2013), the total number of known PATs applied in Iranian organisations was 5 including MBTI, NEO, DISK, Holland and Enneagram. The reason for using these limited tests was not the high ability to detect personality job fit, but the reason was the easy access to these tests and lack of knowledge about other types of tests. For example, only in one of the participant organisations was a person who officially works as an industrial psychologist in the HR department and recruitment process. There is also another aspect that should be considered. According to Ryan et al. (2017), the nation valuing uncertainty avoidance tends to use more tests in the recruitment process. As Iran's uncertainty avoidance based on the Hofstede scale is 59, it is supposed that organisations in Iran use more tests for selection to avoid uncertainty and wrong selection consequences, but they also might use less varied methods of selection. So, it can be concluded that the reason for not applying more tests originates from the uncertainty avoidance factor.
6. The 5 applied PATs in Iranian organisations were in ipsative form, and according to Saville and Willson (1991), ipsative tests can control the responses better than normative forms, and they indicate the actual choice of respondents in real life. It is noteworthy that none of the participants knew the differences between ipsative and normative tests. However, those organisations that applied ipsative tests did not comment on the potential of applied PATs for social desirability bias in personality measurements' responses by individuals, which causes faking results.

7. Iran is suffering from a shortage of talented, scientific and skilled people, which is obvious in the employment system as well. All the participants stated the challenges of finding proper individuals to fill the job vacancies. Iran has the highest ranking in brain drain among both developed and less developed countries (Harrison, 2007). During the last two decades, it has turned into an ever-growing issue and an estimated 150,000 to 180,000 people exit Iran yearly (Karimi and Gharaati, 2013). So, many educated Iranians who were born, raised and educated in Iran leave the country when it comes time to work and give back what they were provided (Srivastava, 2018). The lack of highly educated and skilled professionals causes the country and consequently the manufacturing sector to lose the ability to progress, which equates to a slowdown in economic growth. According to participants, political instability and sanctions forced by the USA have made Iranians, specifically, the young generation seek a better quality of life in other countries.
8. Although a few organisations used PATs at the recruitment stage, the study of what type of personality is appropriate for each job was not scrutinised. A limited number of organisations, based on the experiences and opinions of the departments' managers, had concluded what kind of personality is suitable and required for a particular job. However, it was not clear if there is a lack of work engagement in the organisation and how they know personality measures such as conscientiousness and self-efficacy (Ghorbannejad and Esakhani, 2016) are necessary for employees' selection criteria.

5.6 Summary of the Chapter

This chapter attempted to answer the three research questions and their subset questions based on the finding of the primary data by synthesising the prior knowledge in secondary data. The next chapter will discuss the key points of the dissertation and the need for future research.



CHAPTER SIX
CONCLUSION



6.1 Introduction

This chapter presents the conclusion and contribution of this research to the field of HRM, recruitment and specifically the application of PATs at the recruitment stage. In this chapter, the strengths, weaknesses, and limitations of the research will be highlighted. Also, it will explain the implications of the findings and their potential impact on recruitment practices in the Iranian manufacturing sector and recommendations for further research.

6.2 Research Aims, Objectives and Achievements

This research aimed to explore the efficacy of applying PATs at the recruitment stage of the Iranian manufacturing sector to achieve personality-job fit. The literature review about Iran indicated academic inadequacies and shortcomings in subjects of Iranian HRM policies and practices, the purpose of recruitment, selecting the right person and the implementation of PATs at the recruitment stage. Therefore, these research gaps were fully addressed by applying an inductive approach through the qualitative data collection process and semi-structured interviews as the main data collection technique. In addition, template analysis (TA) along with the application of NVivo CAQDAS (Computer-Assisted Qualitative Data Analysis Software) was used to analyse the qualitative collected data. To achieve the aim and to identify if using the PATs is important and necessary in recruitment, the following research questions and objectives were raised.

Table 6.1: Research questions and research objectives directing the study.

The research questions directing the study
RQ1: How do HR managers in Iranian manufacturing organisations react to the use of personality assessment tools in their recruitment process?
RQ1.1: How do HR managers evaluate criteria related to personality job fit in the recruitment process of Iranian manufacturing organisations?
RQ2: What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

RQ3: Is it appropriate and necessary for Iranian manufacturing organisations to apply personality assessment tools in their recruitment process?

RQ3.1: How do Iran's cultural issues impact the application of personality assessment tools in the recruitment process?

The research objectives directing the study

Objective 1: To determine how much Iranian HR managers and recruiters are familiar with applying PATs in recruitment.

Objective 1.1: To investigate Iranian HR managers' perceptions of the effectiveness of applying PATs in the recruitment process.

Objective 1.2: To determine the process of assessing personality job fit in the recruitment process of Iranian manufacturing organisations.

Objective 2: To identify the pros and cons of applying PATs in the recruitment process of Iranian manufacturing organisations.

Objective 3: To explore if applying PATs at the recruitment stage has a vital role in the selection of the right people for the job in Iran.

Objective 3.1: To explore the impact of Iranian cultural issues on the application of PATs at the recruitment stage.

To achieve the above research objectives, a multi-concept approach was adopted to provide an advanced fundamental understanding and a holistic evaluation of HRM strategies in Iran (see figure 1.1: a multi-concept approach of this research). Therefore, the literature review focused on areas of Iranian strategic management, political influence on Iranian organisations' management systems, Iranian history and culture, Western culture, Iranian recruitment strategies, criteria of selection to achieve person-job fit, occupational psychology and personality assessment tools.

Objective One: Research objective one, in line with research question one, was trying to determine how much Iranian HR managers and recruiters are familiar with applying PATs in recruitment, to investigate Iranian HR managers' perceptions of the effectiveness of applying PATs in the recruitment process and to determine the process of assessing personality job fit in the recruitment process of Iranian manufacturing organisations. The finding indicates that 71% of HR managers are familiar with or have heard about PATs; however, only 32% of them

applied PATs at the recruitment stage officially (see Chapter Five, section 5.2). Despite the critical positions of HR managers in organisations, they were not keen to gain knowledge of modern theories by themselves. HR departments in Iranian organisations fail to apply modern HRM practices, and it seems HR managers do not have adequate authority and knowledge of HRM for this critical role.

Since the literature could not identify the knowledge related to research objective one, the primary data identified new knowledge about the perceptions and knowledge of Iranian HR managers about the application of PATs in general and specifically during the recruitment process. The research also identified the role and authority of Iranian HR managers in the decision-making and implementation of HR policies, specifically in shortlisting and selection process. In this regard, Iran's culture and its influence on organisational recruitment policies have been identified through the primary data collected from participants. In addition, it was identified along with KSAOs criteria if and how personality criteria have been considered in the selection process.

Objective Two: To diagnose the pros and cons of applying PATs in the recruitment processes of Iranian manufacturing organisations.

As the pros and cons of applying PATs were unknown or very limited informed in the Iranian employment system, there was no literature dedicated particularly to this subject. As a result, the primary data collected from participants identified the points of view of the Iranian HR managers who applied PATs and those who intended to apply PATs to achieve personality job fit in the recruitment process. In examining the advantages and disadvantages of applying PATs, Iranian cultural factors, as well as a comparison with Western cultures, were examined. Also, it was investigated if PATs at the recruitment stage helped recruiters come to the right decision about the job candidate's personality job fit and behaviour predictor. The reliability of PATs, social desirability factors, costs and barriers to implementation were also recognised through research objective two (see Chapter Five, section 5.3).

The results for research objective two are divided into two groups: those who applied PATs (officially and unofficially) and those who did not apply PATs. Since 61% of organisations have not applied PATs (see table 4.5) so far, subsequently they cannot be aware of the methods of operating the tests and their results in practice. So, their responses to the pros and cons of the tests cannot be reliable. The findings of this question can be used as the background for another research study in terms of applying the tests in organisations and comparing the outcome of the recruitment with the conventional recruitment methods.

The responses of those who applied PATs indicate that the application of PATs caused a high level of efficiency in the shortlisting process. Despite some disadvantages (the possibility of social desirability, time-consuming, and extra costs for the organisation) that they mentioned, the managers have a high tendency to continue applying PATs. They have concluded that PATs as a method in management science provide managers with a system of support by providing a better view of the personality facts, and it acts as a light in the darkness.

Objective Three: To explore if applying PATs at the recruitment stage has a vital role in the selection of the right people for the job in Iran and to explore the impact of Iranian cultural issues on the application of PATs at the recruitment stage.

The outcomes of objective three recognised the necessity of implementing PATs in Iranian manufacturing organisations by considering eight aspects (see Chapter Five, section 5.4). Also, due to the economic crisis in Iran, which is the result of imposed US sanctions against Iran, the manufacturing sector, especially those that import their raw materials and equipment from Western countries, has also been overshadowed by the economic crisis. Due to this important point, the use of PATs in the recruitment process in two dimensions of necessity or non-necessity was also examined. In addition, culture as an important factor in examining the necessity of applying PATs was examined because Iran is a society with three cultural facets, including Ancient Iranian Culture, Islamic Culture and Western Culture (Latifi, 2006). (See Chapter Five, section 5.4.3)

6.3 Contribution to the Knowledge

The primary aim of the researcher in this study was to clarify if applying PATs at the recruitment stage results in personality job fit in the Iranian manufacturing sector. As discussed in Chapter Two, insufficient studies and gaps in research in the Iranian HRM field, specifically areas related to recruitment and occupational psychology identified. So, this research is one of the first studies to develop related research aims, research questions and research objectives that have investigated the efficacy of applying PATs in the Iranian recruitment context. Before this research, it was unclear how HR staff in Iran utilise PATs in recruitment. However, by undertaking this research, my finding has added the following area to the body of knowledge:

1. The process of shortlisting criteria in Iranian manufacturing organisations,
2. If and how HR managers are familiar with PATs and PATs application at the recruitment stage,
3. HR people's perception of the effectiveness of PATs on their decision making choosing a candidate,
4. The impact of PATs on the hiring process,
5. HR people perspective priority in PATs application first or functional criteria first,
6. Personality job fit via PATs at the recruitment stage,
7. HR managers' challenges in the recruitment process,
8. The relation between job satisfaction and applying PATs at the recruitment stage,

9. The performance of strategic HR management in Iranian organisations.

More specifically, this empirical study scrutinised HRM conditions in the Iranian manufacturing sector by conducting semi-structured face-to-face interviews and observations of HR departments and HR people. The limited number of prior studies published on the Iranian HRM, and recruitment systems have raised only current issues and problems. While this research has sought to create opportunities for further studies by examining the root of the HRM problems in Iran and why scientific methods such as the application of PATs at the recruitment stage have been ignored. The empirical study of this research to identify the lack of knowledge in Iran's manufacturing sector has created a clear and scientific perspective for both the educational and manufacturing sectors in Iran. In this way, the research explored how the use of what is commonly accepted to be scientific practice can facilitate the employment working process and how the adaptation and cooperation of academic knowledge with industry will produce up-to-date and practical knowledge for job seekers.

To move forward in our understanding of HR conditions and the recruitment process of Iranian manufacturing organisations, there was a need to do primary data collection. This combination of exploratory interviewing and grounded theory was considered an appropriate research strategy for this research. Still, it was not found and used in any of the studies included in the literature review, specifically in Iranian literature. So, this primary data collection method and approach are innovative in this study.

Data were collected from twenty-eight organisations via semi-structured interviews, and the focus on hidden aspects of interviewees' mindsets because of cultural differences is unique to this study. No studies in the literature review were found that purposively selected HR participants (both in manufacturing and service sectors) from different ranges of roles and levels (HR managers, HR experts and CEOs). Considering HRM issues and challenges from a diverse range of participants in this study has revealed some hidden subjects that were not studied and discussed in any studies.

6.4 Strength of the Research

The strengths of this research can be examined from several dimensions, including the rationale for the chosen topic and the reasons why it is being carried out, the thematic review of literature and organisation of literature into appropriate themes to construct critical arguments, the choice of methodological approach, the depth and breadth of analysis through consistent, precise, and reliable collected data.

The novelty of the subject of this research in both the HRM and recruitment systems of Iran is a strong point in the business management knowledge of Iran or countries with similar cultural aspects. Although HRM is not a new subject in the West, this science is still a developed or emerging discipline in Iran. Even though it is being taught in Iranian universities, HRM academic science has not yet adapted to the manufacturing sector. Also, the topic of PATs in the Iranian manufacturing sector is in trial and error, let alone when it is applied at the time of employment to achieve personality job fit. Therefore, choosing the subject of reviewing the efficacy of PATs is a strong point in the world of social science and the manufacturing sector of Iran.

Categorising and classifying the literature review was another strong point of this research which provided a clear basis for an understanding of the existing body of knowledge in recruitment, selecting the right person, personality, PATs and exploring the concept of HRM in Iran and why it is important to investigate the recruitment processes and HRM systems of Iran.

Another strength of this research was the process of data collection. Since there has been very little literature review on this subject, attending factories and observing the HR departments and face-to-face interviews with HR managers and experts to achieve their feelings, opinions, and experiences, have allowed the researcher to get up-to-date and first-hand information that was not available in the Iranian management scholarly publications. Exploring and understanding the actual problem of Iranian HR departments and their unwillingness to apply scientific methods was only feasible through collecting data until

achieving data saturation. The data saturation stage was obtained until the 28 interviews, and the information obtained from this significant number of interviews has been invaluable. So, the sample size was sufficient to support the research objectives.

In the data analysis process, interpreting the meanings of participants' responses and making the connection between the findings was aligned with this interdisciplinary research and epistemological viewpoint. Synthesising PATs, as a multi-dimensional and imprecise phenomenon in Iran's recruitment systems with HRM, identified new knowledge in the data analysis of this research. The study ended up with updated findings from the management systems of the Iranian manufacturing sector.

6.5 Limitations of the Research

Despite the strengths of this study, it also has potential limitations which have potentially impacted the research findings. The lack of previous research on the topic is one of the limitations that hindered developing the interview questions. If it was an adequate scholarly paper addressing the research problem, the researcher could widen the scope of the investigation to prepare interview questions. So, to mitigate the impact of this limitation, the researcher conducted five mock interviews to develop the content of the questionnaire. Also, considering the social desirability behaviour of Iranians, including the participants, might reveal some hidden aspects of HR strategies if it was possible to attend the recruitment processes and observe their HR strategies in practice. However, the considerable amount of time that would have been required to undertake observations of the Iranian organisations to gather information was not possible. It did not match the period of the registration of this PhD study.

Another limitation was limited access to Iranian government data regarding HR policies and employment statistics. Due to this limited access as the result of the Iranian government's conservatism in providing statistics to the public, some aspects of the society, including the unemployment rate, specifically in the manufacturing sector and the impact of sanctions on Iran's economy, have made it difficult to compare the accuracy of participants' answers with

the actual statistics of the country. Regarding the collected data, there is a possibility of cultural bias and other personal issues among Iranian participants and the researcher. Since this research was conducted at a UK university and the thesis will be published in England, the researcher believes that the participants may not have provided complete and sufficient information to the researcher at the time of the interview. Two reasons could be considered for this issue. First, this is about saving face to say Iran's systems are not behind the West and second, they might fear recrimination for saying anything negative about systems in Iran.

6.6 The Potential Impact of the Research

The potential impact of this research benefits both inside and outside academia. The benefits inside academia could be the knowledge generated from this study to benefit and influence some social science studies areas, including business management, cultural studies, and occupational psychology. By exploring Iran's past and contemporary dominant culture and religion, this research brings a new perspective to current academic knowledge. Also, the areas studied and discussed in this research could have a regional impact as Iran is one of the most influential countries in the Middle East. In addition, it benefits researchers who are keen to study the application of PATs at the recruitment stage, as the primary data achieved by this research added considerable knowledge to the field of Iran's HRM studies.

Regarding the benefits of this research outside academia, one of the major potential impacts relates to Iran's manufacturing sector. Since organisations to achieve their approach, grow their businesses and maintain sustainable competitive advantages, select individuals with the ability to achieve sustainable competitive success for them, recruitment is a critical process for each organisation. Therefore, knowing the efficiency, advantages and disadvantages of PATs at the recruitment stage help organisations to progress in their recruitment system intelligently and in line with modern science. A personality job fit impacts an individual's behaviour and attitudes, resulting in job-related outcomes such as job satisfaction, organisational commitment, and intent to leave. Therefore, for Iranian organisations to keep pace with global competition and faster innovation, there is a benefit of considering PATs in selection methods as an essential and required auxiliary tool. The study of Iranian culture and

its impact on the employment system is another potential benefit for Iranian organisations because the results of this study showed that there is a possibility of error in understanding the questions of PATs for individuals because of cultural differences. Therefore, studying the results of this research about Iranian culture and its nexus with PATs could be beneficial and practical for HR managers and anyone who tends to use PATs to predict the personality of individuals at the recruitment stage.

Another significant potential impact of this study relates to the Iranian education sector as the educational system in Iran has grown disproportionately to the needs of the manufacturing sector, and there is a lack of communication between academic institutions and the business environment. So, it makes it hard to apply theories into practice. The findings of this study are beneficial and practical for the Iranian universities' educational system in the field of social science such as business management and psychology because the information collected from participants acknowledges that there is a challenge of balancing between the practitioner and scholarly perspectives in Iran. Therefore, linking the academic sector with the manufacturing sector supports HRM strategies and alerts academics regarding the needs and wants of the manufacturing sector. So, the findings of this study could be used to influence the curricula of Iranian universities.

Since the results of this study showed that the presence of HRM in Iranian manufacturing organisations is insignificant or the effect of the HR activities has not been measured and observed, this study, by re-engineering the recruitment policies, could add value to the role of HR departments. Since HR departments are responsible for implementing PATs, using the results of this research to change the selection process system potentially increases the credibility of the HR departments in Iranian organisations. Since the findings show that the subject of HRM in Iranian organisations has not yet reached executive maturity, so changing and redesigning the recruitment process, which is one of the main tasks of the HR departments through the use of PATs, creates strong organisational profitability and strengthens the executive role of HR departments.

Another potential impact of this research could be on the services sector of Iran. This research has been studied in the manufacturing sector which has a larger share of the Iranian economy than the service sector. When a part of the economy is larger, the problems and concepts of knowledge start from there, which can later be used and duplicated in other sectors. It may even be said that the issue of employment and the role of human resources in the service sector is more important and effective than in the manufacturing sector. In the manufacturing sector, the majority of investment is in equipment, machinery and production line needs. However, the main focus and investment in the service sector are on humans, and equipment is the second priority.

This research also creates a potential impact on the HRM software platform since it is one of the tools related to recruitment and hiring that has been adopted by modern businesses to manage internal HR functions. The data from this research may enrich the hiring process for Iranian organisations that use the HRM software platform by adding PATs as one of the criteria for applicant evaluation alongside HR functions such as payroll, benefits, training, talent management, employee engagement, employee attendance, etc.

The last potential impact of this research is for Iranian organisations to boost the policy of their corporate branding by applying PATs at the recruitment stage as it gives a distinctive identity to the organisations and minds of job applicants and employees. It may provide a competitive advantage to the organisations by increasing the company's reputation by applying scientific methods at the recruitment stage. In this way, job applicants will find that it is not easy to enter the organisation, and more effort is needed. The current employees and job applicants will find out the organisations deliberately establishing PATs to ensure the job candidates align with the future ideal employee.

6.7 Recommendation for Further Research

Due to the several areas discussed in this research, further research on several topics is recommended and would be beneficial, which are highlighted below.

1. This study identified and then examined the reasons for the underdevelopment and inefficiency of Iranian HR departments in the manufacturing sector. So, further research is recommended to look for HR policy change in Iran, such as considering the importance of training and education of people who are working in HR departments and promoting HR as a distinct discipline.
2. This study identified the efficacy and necessity of applying PATs at the recruitment stage of Iranian manufacturing organisations. So, further research is recommended to apply the PATs at the recruitment stage through an empirical study and ethnography research method. So, by this new research, the difference between selection with and without PATs can be practically investigated to find out if issues like job dissatisfaction, lack of motivation and work efficiency are affected by a lack of attention to the personality job fit.
3. This study examined the cultural differences and their impact on understanding PATs questions for job applicants. So, new research recommended choosing one of the personality tests, making amendments to the PATs questions based on Iranian culture, and comparing the results of both modified and unmodified tests. This study identified and discussed the efficacy of PATs at the recruitment stage. It is recommended for further research to discover a form of PAT which is adaptable to Iranian culture and organisational system.
4. This research examined 28 manufacturing organisations by the combination of purposive and snowball sampling techniques. It is recommended for further research to choose comparative in-depth case studies in two sectors of manufacturing and service to examine and identify if the application of PATs has the same results in both sectors.

5. This research identified the issue of inconsistency between universities' curricula and the manufacturing sector's skills requirements. It is recommended for further research by examining the needs and wants of the manufacturing sector, and which modules and courses are required to be taught in the social science field of Iranian universities. Also, to find out ways how to create nexus between Iranian universities and the manufacturing sector helping to close the theory-practice gap.

6. Lack of empirical studies to identify the impact of technology in Iranian organisations' recruitment process is an opportunity for further research. Any potential developments in the field of recruitment in Iran, due to technology such as using social media and artificial intelligence that affected the field is valuable.

6.8 Summary of the Chapter

This chapter presented recommendations for future work on the topic, the implications of the work for future research, the strengths and limitations of the work, the research's potential impact and the effect research has beyond academia and a contribution to the knowledge.

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APPENDICES

Note: Appendix numbering format is based on the order of chapters. For example, an appendix starts with 2 means that it is related to chapter 2.

Appendix 2.1: The most cited Personality Assessment Tools that were available to the researcher.

Assessment Creators	Assessment Descriptions
Katherine Briggs and daughter Isabel Myers	The Myers-Briggs Type Indicator (MBTI): The test is based on Carl Jung's theory. The test can indicate 16 personality types and the applicants obtain 4-letter type formula after finishing the test that describes their personalities. There are no right, or wrong answers and the questionnaire is made up of four different scales: 1. Extraversion (E)/ Introversion (I), 2. Sensing (S)/ Intuition (N), 3. Thinking (T)/ Feeling (F) and 4. Judging (J)/ Perceiving (P). In the end, each personality type is shown by four-letter codes: ISTJ, ISTP, ISFJ, ISFP, INFJ, INFP, INTJ, INTP, ESTP, ESTJ, ESFP, ESFJ, ENFP, ENFJ, ENTP, and ENTJ. What makes the MBTI test different is that the results do not compare with others and do not evaluate the mental health of respondents. The test gives information about respondents' unique personalities and helps them to learn more about themselves. (Myers, I. B, 1962)
William Moulton Marston	Disc Profile Personality Assessment: DISC stands for Dominance, Influence, Steadiness and Conscientiousness. The respondents answer a phrase through a rating scale that describes their behaviour. The test measures the respondent's strengths, weaknesses, tendencies, preferences and all behavioural patterns and insights. DISC test is very useful in leadership and executive development, sales and management training, increasing self-knowledge, improving communications behaviour etc. The results show on a DISC which is divided into 4 sections. (Sugerman, 2011)
Taibi Kahler	Process Communication Model (PCM): PCM is a nonclinical test based on behavioural observation to find out about both the deep and basic personality types of individuals. The test is useful to predict and decode behaviours. According to Collignon (2016), based on the Kahler PCM model individuals have 6 floors of personality types which are harmonizer, thinker, persister, imaginer, promoter and rebel. The strongest behaviour is on the ground floor and the weakest behaviour is on the 6 th floor. 'The PCM model is utilised to work better together, manage better, coach better, recruit better, sell better, help others better, manage your private life better, and improve your personal and professional quality of life.' (Kahler's communications, 2018)
Wayne H. Holtzman	The Holtzman Inkblot Technique (HIT): Inkblot technique is a projective test personality type and emotional functioning assessment that gives qualitative information about individuals. The inkblot technique was first created by Rorschach in 1945 and was used in clinics by a

	<p>psychologist for personality assessment. However, its reliability and lack of scientific power were criticised. In 1961 Holtzman refined the technique and created the HIT model. The HIT technique comprises two parallel sets of inkblots which make a shape and the individuals should choose a descriptive answer. The examiners assess the individual's personality based on the chosen answer. (Kumar, 2016)</p>
Kibeom Lee and Michael C. Ashton	<p>HEXACO Personality Inventory (HEXACO-PI): HEXACO is a measure of the six major dimensions of personality (Honesty-Humility, Emotionality, Extraversion, Agreeableness versus Anger, Conscientiousness, and Openness to Experience). There are two versions of 60 items and 100 items of answering self-report form. The 60-item version is appropriate when there is a lack of time to complete. The 100-item version is used in research studies and takes about 20 minutes. There is also a 200-item version in the HEXACO revised personality inventory which has higher internal consistency and reliability. (Ashton and Lee, 2018)</p>
John Gittinger	<p>The Personality Assessment System (PAS): PAS is a descriptive model of personality tests to evaluate and predict human behaviour. It is derived from Wechsler Scales subtest scores and 3 major differentiation of behaviours including extraversion/introversion dimension, regulated/flexible dimension and role adaptable/role uniform dimension. (DuVivier, 1992)</p>
Roger W. Birkman	<p>The Birkman Method: Birkman method is an effective self-awareness tool in the workplace. Regarding Fink and Capparell (2013), the model 'gives a concrete tip for every aspect of life at work. It helps how to talk about yourself in an interview and how your boss coach you based on the test results.' Birkman test aims to reveal the right career path for individuals based on their personality type. (Fink and Capparell, 2013)</p>
Walter V. Clarke	<p>Activity vector analysis (AVA): It is a behavioural assessment tool and measures job-related behaviour. It is widely used in manufacturing at the recruitment stage. AVA describes human behaviour based on five vectors. Vector 1) Assertiveness, Vector 2) Sociability, Vector 3) Calmness, Vector 4) Conformity, Vector 5) Self Discipline/Maturity. (Merenda and Clarke, 1959)</p>
Sir Francis Galton	<p>Big Five personality traits: Human personality describe by five factors: Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. (Moregson et al, 2007)</p>
Daniel Nettle	<p>Newcastle Personality Assessor (NPA): It is a test of character that assess the big five personality dimensions and shows how the personality is structured. (Nettle, 2007)</p>

Kelley & Meyers	Cross-Cultural Adaptability Inventory: It measures four sub-dimensions of adaptability: emotional resilience, flexibility, perceptual acuity and personal autonomy. (Reynolds and Fletcher-Janzen, 2004)
Paul Costa and Robert McCrae	NEO PI-R (Neo personality inventory, revised): It examines a person's Big Five personality traits as well as the six traits that define each domain. (Costa and McCrae, 1992)
Raymond B. Cattell	Sixteen Personality Factor Questionnaire or 16PF Questionnaire (16PF): It analyses the personality in 16 main factors including Abstractedness, Apprehension, Dominance, Emotional stability, Liveliness, Openness to change, Perfectionism, Privatness, Reasoning, Rule-consciousness, Self-reliance, Sensitivity, Social boldness, Tension, Vigilance and Warmth. (Cattell and Mead, 2008)
Leslie Morey	Personality assessment inventory (PAI): It is a self-report of 344 items personality test that assesses psychopathological syndromes of individuals. (Morey, 2003)
Harrison G. Gough	California Psychological Inventory (CPI): It is a self-report inventory including 434 true-false questions to measure personality and behaviour. (Marnat, 2009)
Max Kostick	PA preference inventory (PAPI): It analyses 10 role scales and needs scales. The test asks how much you agree or disagree with a statement. (Jones, 2011)
Hans Jürgen Eysenck and Sybil B. G. Eysenck	Eysenck Personality Questionnaire (EPQ): It is a questionnaire to assess personality traits based on physiology and genetics. (Sato, 2005)
CD Morgan III	Forte Communication Style Profile: It is a test to measure individuals' communication strengths which reflect Decision Making Style, People Focus, Pace and System focus. (Hovliaras, 2012)
John L. Holland	Holland Codes (RIASEC) (Personality-occupation matching): The model refers to the Realistic, Investigative, Artistic, Social, Enterprising and Conventional aspects of individuals. It helps them how to identify an occupation based on their interest. (Thomas and Segal, 2006)
Robert Hogan	The Hogan Personality Inventory (HPI): It is a test to predict job performance. The HPI is based on the Five-Factor Model. It consists of 206 true/false questions. The HPI evaluates seven primary scales and six occupational scales (Service Orientation, Stress Tolerance, Reliability, Clerical Potential, Sales Potential and Managerial Potential) in addition to possessing 42 subscales. (Hogan, 1995)

<p>Robert McCrae, Paul Costa and Lewis Goldberg</p>	<p>Five-Factor Model (FFM) or OCEAN model: It is a taxonomy for personality traits. According to John (1990), the five factors are: Openness to experience (inventive/curious vs. consistent/cautious), Conscientiousness (efficient/organized vs. easy-going/careless), Extraversion (outgoing/energetic vs. solitary/reserved), Agreeableness (friendly/compassionate vs. challenging/detached) and Neuroticism (sensitive/nervous vs. secure/confident).</p>
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Appendix 3.1: Interview Questions

Interview Protocol: Themes and Questions

Part 1. Background Information

Respondent Profile
Name, Job Title, HR manager university degree
General Organisational Background
Type, Number of employees, Industry, Specialties
Overview of their recruitment process
<ul style="list-style-type: none"> ➤ What is the standard recruitment process, including attracting, shortlisting, selecting, and appointing suitable candidates for the jobs?
Conditions of the organisations related to HRM
<ul style="list-style-type: none"> ➤ How is the implementation of your recruitment programme based on the organisation's strategic plan and visions? ➤ How do you see the overall job satisfaction of employees? ➤ How do you measure the job satisfaction of employees? ➤ How often does job displacement happen, and how often do people resign for the reason of finding a more suitable job? ➤ What motivation methods have been employed in your organisation for employees to enhance their work efficiency? ➤ What are the main challenges and pressures that you have been facing during recent years regarding recruitment?

Part 2. The Three Research Questions and Their Related Points of Checks

RQ1. How do Iranian manufacturing companies' HR managers react to the use of personality assessment tools in their recruitment process?

- Are you familiar with using PAT in recruitment?
- What do you know about PAT?
- Have you had any experience doing PAT yourself? What type of tests have you done?
- Have you performed any kind of PAT in the recruitment process for job candidates?
- In your opinion, what is the role of HRM in applying the PAT?
- How are the roles and job descriptions developed in your company? How are they reviewed? Are they aligned with the requirements of personality?
- In your opinion, how should recruitment and selection processes reflect the requirements of personality?

RQ2. What are the perceptions of HR managers regarding the advantages and disadvantages of implementing personality assessment tools in the recruitment process of Iranian manufacturing organisations?

- What are the pros and cons of using PAT in Iranian manufacturing companies' recruitment process?
- Do you think that employees in organisations should have an adaptable personality to their job roles?
- Do you think applying PAT in recruitment makes significant improvements in achieving organisational goals?
- In your opinion, how can PAT affect positively/negatively the achievement of recruitment? How can PAT enhance/hinder recruitment?
- Do you think personality job fit boosts employee engagement?
- What approaches have been used by your company to boost employee engagement?
- If you have applied the tests, what is your perception of the effectiveness of applying PAT in the recruitment process?
- If you are not using the tests, for what reasons you are not using PAT in recruitment?

RQ3. Is it a necessity for Iranian manufacturing companies to apply personality assessment tools in their recruitment process?

- How do you evaluate criteria regard to personalities' adaptability to the job role specifications in recruitment?
- In your opinion, is there a difference in the HR manager's decision-making with or without applying PAT in the recruitment process?
- What are the key characteristics of applying PAT in creating organisational competitive advantages?
- In your opinion, what is the role of applying PAT in improving the HRM strategies plan?
- In your opinion, do HR managers need to use PAT as a helping tool in recruitment?
- Has the company ever found that low job satisfaction may be caused by the wrong recruitment process?

- If yes, has the company tried to change the principal rules of recruitment and reinforce a new set of values to achieve the desired results?
- What new set of values have been considered?
- What barriers exist to applying PATs in recruitment? Have you met any resistance?
- Should all Iranian manufacturing companies apply PAT in recruitment? Are there differences in the size of the company and the number of staff?
- To what extent do you think selection criteria should consider the individual's personality?
- To what extent do PATs reflect the desired attributes of individuals?
- What do you think about the principle of hiring for personality job fit first and functional skills second in recruitment?
- In your opinion, what kind of PATs can be more useful in recruitment?

Do you know any company or HR manager who has applied PAT in recruitment?

1. Why have they applied PAT official/ unofficially/not applied?
2. What were the results of applying PAT?
3. Do they want to continue PAT? Yes (S)/No (W): Reason
4. Is he/she a proponent/ moderate (negative, neutral, and positive)/ opponent of person-job fit via PAT in recruitment? Why (reason)?
5. Are he/she a personal priority in an idealistic situation, applying PAT first, simultaneous or functional criteria? Why (reason)?

Appendix 3.2: Interviews' Inviting Letter and Consent Form

Invitation Letter

Dear Sir/Madam,

My name is Zahra Shaygan, and I am studying for a PhD in Business at Birmingham City University. You are being invited to take part in Birmingham City University's research into the Human Resource Management field. We would like you to take a few minutes to read this information sheet before making up your mind about whether or not you would like to help us with our research. Please ask us if there is anything that is not clear or if you would like more information.

The Research Purpose:

My research aim is to evaluate the effect of applying personality assessment tools in Iranian manufacturing companies in their recruitment process to achieve a personality job fit.

The interview will take around 45-60 minutes. I am trying to capture your opinions and perspectives on being a practitioner in the HRM field. Your responses to the questions will be kept confidential. Your participation will be a valuable addition to our research, and findings could lead to a greater understanding of Iran's HRM.

Each interview will be audiotaped so that we can accurately reflect on what is discussed. The audio recordings of our interviews will be used only for analysis. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings.

Interviews' audio files will be transferred to a password-protected computer as soon as possible after recording. They will be stored digitally on a password-protected computer and backup system and will be erased from mobile storage devices such as memory cards and memory sticks. Following the completion of the research project, when interview recordings are to be disposed of or archived, we will ensure that your rights to confidentiality and anonymity are maintained.

The outcomes of the research will be published in a PhD thesis, papers in peer-reviewed academic journals and papers which will be presented at management conferences and seminars. No individuals will be identifiable in these publications.

This study has been ethically reviewed and approved by the Faculty Academic Ethics Committee in conformance with the research ethics policy of Birmingham City University, which is based on the Revised Ethical Guidelines for Educational Research (2018) published by the British Educational Research Association.

My main questions are:

1. How do Iranian manufacturing companies' HR managers view the use of personality assessment tools in their recruitment process?
2. What advantages and disadvantages do personality assessment tools have in Iranian manufacturing companies' recruitment process?

3. Is it a necessity for Iranian manufacturing companies to apply personality assessment tools in their recruitment process?

Also, a number of sub-questions related to the main questions will be asked.

If you are interested and happy to participate in this research, please complete and sign the attached consent form and return it to us. Thank you for having taken the time to read this.

If you have any questions, please do not hesitate to ask me through my contact details:

Zahra Shaygan, Doctoral Researcher, Birmingham City Business School

Mobile: +447931231596, E-mail: Zahra.Shaygan@bcu.ac.uk.

My supervisory team:

First Supervisor: Dr Martyn Brown. PhD, MBA. Coordinating Director of Postgraduate Framework Degrees. Senior Lecturer in Organisation Studies. Birmingham City Business School, Department of Strategy, Management and Marketing. Email: Martyn.Brown@bcu.ac.uk

Second Supervisor: Dr Andrew Hambler. BA, MSc, LLM, PhD, SFHEA. Associate Professor in Employment Law and HRM. Birmingham City Business School, Department of Strategy, Management and Marketing. Email: Andrew.Hambler@bcu.ac.uk

Consent Form

I, the undersigned, hereby declare that I agree to participate in this audio digitally recorded interview for the study to be carried out by researcher Zahra Shaygan entitled:

‘To evaluate the effect of applying personality assessment tools in Iranian manufacturing companies in their recruitment to achieve person job-fit.’

I further declare that I have read the Research Information Sheet and understand the purpose of the research, that it will be used as part of a Doctorate programme being undertaken by researcher Zahra Shaygan at Birmingham City University, and it will be stored and accessed

solely by the researcher and that it will not be disclosed. I also understand that it can be used for research output based on such research and that my anonymity will be guaranteed.

By making this declaration, I understand that I am allowing the researcher to use the information I am providing to her for the purpose of this research and its output and I am also aware that I can withdraw from the research at any time.

I have read the participant information sheet for the above research project and understand the following:

1. That I am free to withdraw at any time.
2. That all information I provide will be dealt with confidentially.
3. I agree that the researcher may contact me.
4. I understand that the researcher recognises my rights to confidentiality and anonymity.

However, I willingly waive that right and request the researcher to identify my organisation and me with any publication of my inputs.

Name: Signature:

Name, Position and Contact Address of Researcher:

Zahra Shaygan

PhD Researcher

School of Business, Law and Social Sciences, Birmingham City University

Mobile Number: +447931231596

Email: Zahra.Shaygan@bcu.ac.uk

Appendix 4.1: Background information of the participating manufacturing organisations

Organisations' Code and Interviewees' Code	Type	Industry Specialties	Company Size
Organisation 1 Interviewee 1	Privately Held	Manufacture of refinery equipment and parts	300 employees
Organisation 2 Interviewee 2	Privately Held	Manufacture of Resin	300 employees
Organisation 3 Interviewee 3	Privately Held	Polyethene Tanks	205 employees
Organisation 4 Interviewee 4	Privately Held	Customized design and fabrication of various types of static equipment for Oil, Gas and Petrochemical industries	650 employees
Organisation 5 Interviewee 5	Privately Held	Meat and Protein products	950+ employees
Organisation 6 Interviewee 6	Privately Held	Manufacturing of Kitchen Appliances	100 employees
Organisation 7 Interviewee 7	Privately Held	Fuel Storage Tanks, Air Cooled Heat Exchanger Axial Fan, Sand Filters, Steel Structures, Air Cooler Axial Fan and Cooling Water Drum	143 employees
Organisation 8 Interviewee 8	Public Sector	Manufacturing of Liquorice	100 employees
Organisation 9 Interviewee 9	Privately Held	Ice cream and Dairy Products	2000 employees
Organisation 10 Interviewee 10	Privately and Public Sector Shareholders	Ice cream and Dairy Products	7000+ employees
Organisation 11 Interviewee 11	Privately Held	Air Cooling Tower and GRP Pipe	3000+ employees
Organisation 12 Interviewee 12	Privately Held	Manufacturing of Cement	288 employees
Organisation 13 Interviewee 13	Public Sector	Manufacturing of Steel	1300 employees
Organisation 14 Interviewee 14	Privately Held	Manufacturing of Air-Cooled Heat Exchangers, Air Cooled Condensers, Air Separation Unit, Power Plant Cooling, Refrigeration Packages and Shell & Tube Heat Exchangers	450 employees

Organisation 15 Interviewee 15	Privately Held	Ice cream and Dairy Products	1800 employees
Organisation 16 Interviewee 16	Privately Held	Manufacturing of Plastic Dishes	130 employees
Organisation 17 Interviewee 17	Privately Held	Premium Band	121 employees
Organisation 18 Interviewee 18	Privately Held	Manufacturing of Glass Wool	200 employees
Organisation 19 Interviewee 19	Privately Held	Manufacturing of Partition, office, and Hotel Furniture	800 employees
Organisation 20 Interviewee 20	Public Sector	Manufacturing of Oil and Gas Projects, Road Construction, Agriculture and Fishery Equipment	311 employees
Organisation 21 Interviewee 21	Public Sector	Cooperative Labour and Social Welfare	200 + employees
HR Expert and Consultant 1	Various Organisations		
HR Expert and Consultant 2	Various Organisations		
HR Expert and Consultant 3	Various Organisations		
HR Expert and Consultant 4	Various Organisations		
HR Expert and Consultant 5	Various Organisations		
HR Expert and Consultant 6	Various Organisations		
HR Expert and Consultant 7	Various Organisations		
Total	28		

Appendix 4.2: Recruitment process of the manufacturing organisations

Interviewees	Standard Recruitment Process
Interviewee 1	<p>'Attracting: introducing through friends, families and recruitment agencies</p> <p>Sourcing: The candidates send their CVs to the company by email, and then they will be invited to the company to fill out a form that includes questions about their personal information.</p> <p>Screening: The forms are collected by the administration department, and each person needs three referees to be eligible for the next stage, which is selection.</p> <p>Selecting: the interview is done by the head of each department, and the questions are included knowledge and skills criteria. E.g., the head of the finance department interviews an individual who wants to work in the finance department.</p> <p>Post selection: the post-selection is benchmarking from a German institution called Berufusschule (vocational school) which the selected individuals attend a part-time apprenticeship from 6 months to 1 year to be ready to work in the company and if they change their mind after the training workshops, they need to pay the company the fees of training.</p>
Interviewee 2	<p>Attracting: quality is more important than quantity. So, when a department needs a workforce, it first gets the CEO's permission.</p> <p>Sourcing: The HR department has a range of CVs and introduces qualified candidates to the head of the department.</p> <p>Screening: individuals fill out a form that includes general personal questions and their education and experience (CV).</p> <p>Selection: the interview is done by the head of the department and sometimes the CEO.</p> <p>Post selection: there is not any specific post-selection method.</p>
Interviewee 3	<p>Attracting: some job candidates already filled the application forms (e.g. a year ago and we keep them) or introduced them through friends or family members and recruitment agencies.</p> <p>Sourcing: each department has a different process of sourcing. For example, the production department when needs a workforce, asks the head of the department and then the HR department.</p> <p>Screening: head of the department checks application forms and CVs and decides who is eligible for selection. E.g., criteria like living address as the factory are outside of the city or the physical ability of workers as they must lift a mould.</p> <p>Selection: the head of the department selects some people from job applications and conducts the interview based on the criteria which are needed.</p> <p>Post selection: the head of the department asks the selected individual to work for 6 to 10 days to give the final decision and make the employment contract through HR.</p>
Interviewee 4	<p>Attracting: starts with the head of the department announcing the need for a new workforce. Post the current vacancies on the company's website or advertising through newspapers.</p>

	<p>Sourcing: from CVs which was sent to the company</p> <p>Screening: it is through interviews which include knowledge tests and panel interview</p> <p>Selection: no response was provided.</p> <p>Post selection: one-month training about the rules of the company and health, safety, and environment at the company. After one month, they might be accepted or rejected.</p>
Interviewee 5	<p>Attracting: Head of departments announce the need for a new workforce to the CEO and, by the CEO's permission, at first, they advertise in the company for internal employment. If they could not find the proper individuals after 7 to 10 days, advert through newspapers and universities.</p> <p>Sourcing: source the related CVs and ask for interviews</p> <p>Screening: there are two interviews. First, the HR manager checks the eligibility of an individual's emotional intelligence and personality factors. If they pass the first interview, the head of the department will ask questions about their knowledge and skills.</p> <p>Selection: select a person who passes both interviews.</p> <p>Post selection: no specific post-selection process</p>
Interviewee 6	<p>Attracting: recruitment agencies, company website, Telegram channel</p> <p>Sourcing: The HR manager sources the CVs</p> <p>Screening: the HR manager screens the CVs and sends the best CVs to the head of the departments</p> <p>Selection: the head of the department's first interview checks the skills and knowledge. If they pass, the HR manager tests the job candidates by occupational psychology tests (MBTI and Holland) and emotional intelligence tests. The last step is the panel meeting, including the HR manager, head of the department and factory manager. They choose people based on the O*NET test. If a person gets a score of more than 70% will be selected.</p> <p>Post selection: there is no specific post-selection process.</p>
Interviewee 7	<p>Attracting: social media, recruitment agency, newspapers, friends, company website</p> <p>Sourcing: HR examines the applications and sources the more relevant ones and introduces them to departments</p> <p>Screening: the HR arrange interview times</p> <p>Selection: First, HR hold writing tests and personality tests, and then the higher-ranking individuals invite for interviews. The interview panel include HR people and head of departments who score the interviewee based on the predetermined competencies</p> <p>Post selection: there is no specific post-selection method</p>
Interviewee 8	<p>Attracting: through adverts in newspapers</p> <p>Sourcing: based on the budgets of the holding company, they can recruit people. If a department requires a workforce, first send a request letter to the main office in Tehran and if they approve, first look for the internal requirement and then look for people out of the company.</p>

	<p>Screening: a recruitment panel has criteria based on age, knowledge, and Islamic behaviours codes. The recruitment process is in Tehran. It is just a one-day interview process.</p> <p>Selection: they ask referees to confirm the candidates' qualifications.</p> <p>Post selection: the selected candidates start to work for three months as a test, and after one month, if they conform to the candidate's ability, the company make three months contract and extends it every three months.</p>
Interviewee 9	<p>Attracting: the first advert in the organisation to select existing employees and then advert on the website or newspapers</p> <p>Sourcing: the departments send their requirements to HR and HR to examine if their requirement is eligible.</p> <p>Screening: there are two methods of screening. For production line workers who do not need specific knowledge or skills, the panel team is included a person from HR and a supervisor from the production line. For jobs that require particular knowledge and skills, the panel consists of HR managers and the head of the department</p> <p>Selection: The final decision-maker is the head of the department unless the issue is acute and disagreed.</p> <p>Post selection: there is no specific post-selection process.</p>
Interviewee 10	<p>Attracting: advert in newspaper and company website or a job application form is in the company, and people can come to the company and fill the forms.</p> <p>Sourcing: the head of the department first request the need for a workforce to HR. the company send a letter to the holding HR department, and they examine, and if they accept it, they get permission to recruit a workforce. The company has two processes of recruitment.</p> <p>Screening: They set a specific date for the writing test, and the people who get the highest ranking are invited to interview.</p> <p>Selection: the interview panel is included the head of the department, HR people, an Islamic code of conduct person and a person from the board of directors.</p> <p>Post selection: There is a 1 to 3-month training process. After finishing the three months, the panel makes the final decisions.</p>
Interviewee 11	<p>Attracting: company website, LinkedIn, newspapers, and universities. It also includes internal recruitment too.</p> <p>Sourcing: first departments request the workforce to the HR department. If it is based on the strategic plan and the head of the department needs to explain what the reasons for the request are and what criteria are the priorities. HR examine if this is based on plan or not. If it is not based on a plan, the head of the department and HR should explain to the CEO why it is out of the strategic plan. Individuals fill out an application form that is valid for one year.</p> <p>Screening: the screening is done first by KSAOs, and they choose 3 to 5 individuals. The questions are asked the same for everyone to check the equality</p> <p>Selection: the panel of selection includes the head of the department, HR managers or a person from the HR department, HR secretary who write all the process of the interview. First, they have a general test, including IT skills tests</p>

	<p>and Microsoft tests. Each job has a criterion that what kind of knowledge and values are needed. Each panel member gives his idea and gets a conclusion. However, the final decision is by the head of the department. If the HR manager feels the selection is wrong, they discuss more.</p> <p>Post selection: 3 months taring with the mentor who observes selected individuals' skills and behaviours.</p>
<p>Interviewee 12</p>	<p>Attracting: company website, newspaper. They have an HR consultant who introduces them to the best-qualified people. They call it hunting the best candidates.</p> <p>Sourcing: it is based on the O*NET model to set criteria for each job. Benchmarking from 4 famous and successful western companies to set HR strategic plans based on companies' preferences and strategies. The Head of the department asks the CEO, and CEO asks HR.</p> <p>Screening: it is based on the university ranking qualifications. The candidates who graduate from high-ranking universities are a priority.</p> <p>Selection: the panel is the head of the department, HR manager, HR secretary and deputy manager and a person for the Islamic code of conduct. For senior managers' positions, the CEO make decisions, and the recruitment panel does not choose them.</p> <p>Post selection: there is no specific post-selection process.</p>
<p>Interviewee 13</p>	<p>Attracting: newspapers and company website or introduced by friends. HR has no access to job applications, and the public relations department has the responsibility of collecting job applications, and this department is observed directly by the CEO.</p> <p>Sourcing: they look at job applications, and the head of the department request permission to recruit an employee from the CEO. The HR manager has not an important role. They are responsible for administrative responsibilities.</p> <p>Screening: Based on the knowledge test</p> <p>Selection: based on the knowledge test</p> <p>Post selection: there is no specific post-selection process</p>
<p>Interviewee 14</p>	<p>Attracting: newspapers and company website. First, the head of the department asks for an employee. It needs the CEO's permission if it is a new entrant. The HR first examines why the department needs an employee and then sends the request to the CEO.</p> <p>Sourcing: based on knowledge and experience.</p> <p>Screening: the application forms send to the head of departments, and they choose who comes for the interview.</p> <p>Selection: the selection is first by the head of departments, and then the occupational psychologist who is employed, and the company examine the person's job fit based on personality criteria</p> <p>Post selection: there is 1-month training for workers and 3-month training for experts.</p>
<p>Interviewee 15</p>	<p>Attracting: newspapers and company website, telegram, Instagram, recruitment agencies.</p>

	<p>Sourcing: HR sends the application to the head of departments, and they send their selected applications to HR, and HR arrange interviews. The head of the department asks for a new employee, and the CEO approves or disapproves. If approved, the HR department sends the related applications to the head of the department.</p> <p>Screening: HR does not censor and remove. Head of departments choose the selected applications and send them to HR. to select workers level, HR manager does not attend the interview, and HR people attend.</p> <p>Selection: selected applications invite for interviews. The panel is the head of the department and HR people. The selection criteria are based on KSAOs, and HR examine personality.</p>
Interviewee 16	<p>Attracting: it is through friends and families and the people who are living in that area.</p> <p>Sourcing: all the sourcing and selection process is done by the CEO. He does the interview and decides who starts the job at the company.</p> <p>Post selection: there is 1 to 3 months training process</p>
Interviewee 17	<p>Attracting: through recruitment agencies. They don't advertise in the newspapers.</p> <p>Sourcing: HR source the applications and arrange the interview time.</p> <p>Screening: there is a panel that includes the head of departments and HR, which screen the applications.</p> <p>Selection: the panel choose and introduce their selected person to the CEO. The panel interviews and select based on personal judgments. But, The final decision-maker is the CEO.</p> <p>Post selection: there is a 1 to 3 months training process.</p>
Interviewee 18	<p>Attracting: through website, newspapers, social media, and snowballing.</p> <p>Sourcing: head of the department request a new employee, and if it is eligible by the HR department, they send the request to the CEO. There are job applications including personal questions, job experiences and CVs.</p> <p>Screening: screening is done by the head of the department and then examines the personality of the HR department.</p> <p>Selection: the last decision is made by the CEO and factory manager, and HR manager.</p> <p>Post selection: 3-month training process</p>
Interviewee 19	<p>Attracting: through websites, newspapers, and social networks.</p> <p>Sourcing: people fill the job applications</p> <p>Screening: screening is based on two criteria of knowledge and personality. Each job has specific required knowledge and personality.</p> <p>Selection: the job candidates invite to interviews and select based on IQ tests and personality tests.</p> <p>Post selection: 3 months of taring process</p>
Interviewee 20	<p>Attracting: through websites and newspapers. The job advert for jobs which highly need expert people is different. The advert does not include minimum qualifications, it specifies the required competencies.</p>

	<p>Sourcing: head of the department request the need for a new employee to the HR department and HR examines if the request is logically based on the HR strategic plan. Job candidates fill out job applications and send their CVs and are asked for interviews.</p> <p>Screening: there are two interviews, general and specific. The people who pass the general interviews invite to the specific interviews.</p> <p>Selection: the people will be selected after the second interview based on the criteria of the evaluation centre.</p> <p>Post selection: 3 months of taring process</p>
Interviewee 21	Organisations are free to choose their recruitment method process. There is not any fixed rule regarding recruitment. However, all the organisations are obliged to have three months training process for the new entrants.
Interviewee 22	Organisations are free to choose their recruitment method process. However, the public sector is different from the private sector. The private sector is more professional. In general, companies have three processes of recruitment, including interview, writing test and interview.
Interviewee 23	Iran has a very complex culture that has some flaws and several merits. E.g., one of the cultural disadvantages is that people are not straightforward, and people do have not the power to say no, including employment. So, I speak with certainty that over 70% of Iran's employment is based on recommendations. There are no standards, and it is a game of giving and taking. I haven't seen a place where they have the expertise, the skills, the personality, and the values altogether.
Interviewee 24	<p>The regulations based on the Ministry of Labour rules are skills, experience, and education. Individuals are given points in the evaluation.</p> <p>The job description of the Ministry of Labour has not included personality tests, but we do in the interviews. Although the person's information is high, it is the personality of the person who can take the job or not. The recruitment and appointment committee consisted of human resources and the head of the department, with the director and the occupational psychologist examining their work.</p> <p>A set of minimum and maximum values and criteria for each organizational post is defined. We announce a job advert when a department asks for a new employee. The job candidates' fill out a job application form and send them their CVs.</p>
Interviewee 25	Organisations are free to choose their recruitment method process. There is not any fixed rule regarding recruitment. However, all the organisations are obliged to have three months training process for the new entrants.
Interviewee 26	<p>'The best mode of recruitment is through introducing and snowballing. In Shiraz, HR managers ask each other. But in the usual case, insert ads in newspapers and recruitment agencies.</p> <p>To recruit workers level, the interview panel is from the HR department and the head of the department, which is just an oral interview. Other levels, such as interviewing engineers, are more specialized and take the scientific test. The HR</p>

	manager conducts the first interview to examine what is the type of individual's personality, e.g., if he/she has changed jobs seven times in the past six years, which means he/she has no job sustainability.
Interviewee 27	The recruitment process is adopted from ABB company in Sweden and EFQM's third criteria. The adopted methods as benchmarking caused the company to get the award of the best exporter in Iran for many years as they could recruit the best-qualified people.
Interviewee 28	His selection method as an HR expert is adopted by his Polish tutor at the university. He applies a situational judgment test to select the best candidate. There is three months training process, and after three months, they give the final confirmation. Each panel member has a chart of scoring the competencies of a person, and at the end, they sum up the scores and choose the person with the higher score.

Appendix 4.3: Organisations' challenges at the recruitment stage

Unqualified Candidates	Well-Connected Candidates	Other Factors
<p>Interviewee 1: <i>'There is a lack of individuals with a high level of knowledge when they graduate from universities.'</i></p> <p>Interviewee 2: <i>'There is a lack of high expertise human resources for the job we need. The reason is that the educational system in the country has grown disproportionate to the needs of the industry. Lack of communication between educational institutions and business environment makes a person learns theory, but not in practice.'</i></p> <p>Interviewee 3: <i>'We asked for expert workforces; however, after three</i></p>	<p>Interviewee 4: <i>'There is a problem with introducing well-connected people when we advertise for a job.'</i></p> <p>Interviewee 7: <i>'We have the problem of recruiting people who are well connected. However, after a while, we dismiss them.'</i></p> <p>Interviewee 8: <i>'We had the problem of recruiting well-connected people, and I believe this is the social and cultural problem which is not just limited to the organisations. The CEO directly ordered the HR department to solve this problem that the newly selected employees should not have any family or friendly relations with the</i></p>	<p>Interviewee 1: <i>'There is no training for people in terms of how to be a useful person in society and how to have discipline in their lives. Ethical issues such as discipline are taught from childhood. Nowadays, everyone is decided to do something but cannot make it into practice because they do not have any motivation for achievement. The young generation thinks that they can make their future by migrating abroad. Those who immigrated, studied and grew up with national capital are a great asset for Iran; however, other countries like Canada, etc., absorb them as ready skill workers. They are the same people, but when</i></p>

months, nobody introduced us.'

Interviewee 4: 'The job candidates' scientific level is deficient.'

Interviewee 5: 'There is a lack of expertise and literacy in the new generation. There are many university graduates, but they are not capable of solving organisational problems. Our educational and academic system is not in line with the manufacturing sector. Organisations are also not capable of training new job candidates because of time and costs. Regarding the high volume of universities in Iran, the industry is expecting education and knowledge from universities. For example, the petrochemical company used to train people and use them in its industry. If they didn't, the company believed that those trained people would be useful for other parts of industries in Iran. Universities have a business vision, and with more students, they can offset their costs.'

Interviewee 6: 'We have a problem with the selection process because highly qualified and skilled people are lacking. Also, people are low in competence and ability. The number of job applications is high, but you cannot find a person with a

existing employees and board of directors. By this filtering, it is possible to recruit individuals based on their qualifications and skills, not the reason of nepotism or cronyism.'

Interviewee 10: 'Well-connected problem is everywhere. However, we try to make it less or not giving them critical roles in the organisations.'

Interviewee 11: 'We have the problem of well-connected people as the accomplishment of our work depends on the decision of the job applicant's introducer.'

Interviewee 12: 'We are the only manufacturing factory in this region, so there is a high level of pressure from the regional governor to hire well-connected people.'

Interviewee 13: 'We have a well-connected hiring problem.' (The interviewee gave no more explanation)

Interviewee 14: 'The problem of hiring well-connected people is all around the country. However, we are resisting stopping hiring them. The biggest problem is that they are not working properly, and we can't criticise them clearly. So, they disrupt the fair and justice environment of the organisation as we cannot treat them the same as other employees. We try to put them in job positions which

they live in other countries, they respect laws, and their manner is different from when they lived in Iran. Heavy fines in other countries prevent people from doing the wrong things.'

Interviewee 3: 'We have nepotism challenges.'

Interviewee 6: 'Many people apply for the job; however, they do not attend and miss the interview when we call them for the interview. In my opinion, it causes from lack of motivation in the young generation to work hard and earn money as their parents are always supporting them financially.'

Interviewee 7: 'It is hard to implement and place PATs at the recruitment stage as most of the people in the organisation are workers, and they think that we just make the process of recruitment complex.'

Interviewee 9: 'There is a need to change the work culture in Iran's society as a new generation looking for a job with fewer responsibilities but with higher salaries and a higher level of job positions.'

Interviewee 10: 'We have the supply and demand challenge regarding hiring people. There is a high volume of demand for a job; however, the job opportunities are low.'

Interviewee 12: 'Private sector does not pay high salaries. So, highly skilled people do not apply for their job vacancies,

<p>high level of competencies. For example, among 120 job applications, we might find just one application that meets our needs. I believe the reason is the low-qualified higher education system. It is just limited to the new young Iranian generation, and it is not just about their knowledge, even in their lifestyle type, and expectations are obvious. A newly graduated person who has not gained any experiences and enough knowledge expected a high salary and expect to be hired in management levels.'</p> <p>Interviewee 9: 'The new generation who graduated from higher education have a low knowledge level.'</p> <p>Interviewee 10: 'There is a severe problem in the lack of knowledge of higher education graduated students. Although public sector university graduates' people have a high level of knowledge, as nowadays there is a high range of open universities in Iran, the graduates are not knowledgeable. For instance, we had a job applicant with a master's degree in chemistry; however, he could not respond to the questions regarding high school chemistry.'</p> <p>Interviewee 11: 'Universities outcome is graduates with a low level of</p>	<p>has less effect on the organisation's outcome.</p> <p>Interviewee 18: 'Whenever we advertise in the local newspaper for a job vacancy, we receive many calls from well-connected people. So, our advert policy changed, and we do not mention the corporation's name. We just mention in the advertisement that a highly valid corporation is looking for an individual with these required skills.'</p> <p>Interviewee 22: 'Organisations have the problem of hiring well-connected people as avoiding hiring those people might make problems for them by the introducers.'</p> <p>Interviewee 24: 'The problem of hiring well-connected people is common for brand organisations. They receive a call from introducers whenever they advert for a job. However, some jobs need specific knowledge and experiences, and not everyone is eligible to get the job just by a referee's recommendation.'</p> <p>Interviewee 27: 'I believe the organisations that cannot overcome the issue of hiring well-connected people do not have the power to say no to the introducers.'</p> <p>Interviewee 28: 'We have the problem of hiring well-connected people who are forced by the religious leaders of the region.'</p>	<p>and they either immigrate or hire in public sectors.'</p> <p>Interviewee 14: 'Nowadays the biggest problem is the lack of a good workforce. I believe this relates to culture. People have a high IQ but low EQ and face problems with posts requiring communication. The previous generations were used to playing physical activities in their childhood and playing games as a team. However, in the new generation, more games are computer-based, and now they are grown up and have no idea of responsibility and teamwork. Also, they are physically weaker and less motivated. For example, most men job applicants have bought their two years of military service. Women are more motivated and work better than men.'</p> <p>Interviewee 15: 'Iran's economic situation has two side effects: firstly, as the economy has not been good in recent years, people who have graduated from universities have not been able to find jobs and gain experiences, so neither in university nor the industry they could not learn in practice. Secondly, highly skilled and knowledgeable people ask for higher salaries, which is not possible for organisations.'</p> <p>Interviewee 18: 'This factory has a regional issue. The local people believe that as the factory has been placed in their</p>
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knowledge. So, our priority in hiring is with those who have a self-learning behaviour and do not just rely on the university courses and are looking for learning skills and knowledge rather than university.'

Interviewee 12: 'Well-educated and expert people left the country and immigrated to other countries, so there is a lack of knowledgeable and well-educated people among job applicants.'

Interviewee 13: 'Even we had job applicants from high-ranking public sectors universities; however, about 80% of them were eliminated in the first round of interviews. So, this problem made us reduce our expectations to be able to hire some people.'

Interviewee 14: 'There are many people with higher education degrees. However, they have insufficient knowledge. The reason is that universities do not dismiss students if they fail their courses, and universities just focus on attracting more students. Also, very few senior managers value and care about the young generation and help them by training to enhance their learning and knowledge. I believe lack of highly qualified senior

region so all the workers should be from that region. However, to overcome this issue board of directors banned any nepotism and family relation hiring.'

Interviewee 21: 'Young people do not look for low-level jobs. We must give value to all kinds of jobs. For example, working as a waiter in a restaurant or worker in a factory does not satisfy the young generation as the culture does not give value to those jobs.'

Interviewee 22: 'I believe we will have a quality crisis in 2030. Immigration and brain drain in Iran is at a high level. We will definitely face a serious Iran crisis in the next ten years.'

Interviewee 26: 'There is a cultural issue in which families raise and support children without considering their age. Men and women might be around their thirties to forties and still get financial support from their parents. So, the young generation has no intention of finding a job, earning income, and asking for a high salary, which is unacceptable.'

managers causes the lack of experts.'

Interviewee 15: *'In my opinion, university knowledge outcome status is very weak. The educational system is more based on theory rather than practice. It took about a year to us to find a qualified technician.'*

Interviewee 16: *'People who graduate from colleges know nothing. Because they have neither work experience nor scientific literacy. The academic knowledge of universities is very low. Highly educated and experienced people are expensive to hire, and low experienced people need training which has costs for organisations.'*

Interviewee 17: *'It is not true that there are a few knowledgeable people. However, as highly knowledgeable people are hired fast, it is hard to catch them, and they ask for higher salaries too. The problem is that people do not have personal studies, and they just rely on university degrees.'*

Interviewee 18: *'We cannot find qualified people as the knowledge of university graduates people is very low.'*

Interviewee 19: *'There is a shortage of specialists. There is a gap between academic courses and the*

job market. Universities do not teach in practice, and it is all about theories. I am also a lecturer at the university; nowadays, students are very different from ten years ago. In the new generation, personal studies are very low.'

Interviewee 20: *'We have a lack of attracting highly qualified managers.'*

Interviewee 22: *'There is indeed the problem of lack of knowledge in universities as the number of private universities has increased. However, this problem cannot be generalised, and it depends on the university's ranking. The manufacturing sector needs to know that the policy of the educational system has changed to making money rather than enhancement in science. So, the manufacturing sector should not expect more than this from university graduates.'*

Interviewee 23: *'I do not believe that graduates from universities have a low level of knowledge. Most managers compare new graduates and a new generation to themselves. Each generation has its own specifications and needs. The basic problem is that you let go of the person who comes into the organisation which causes a lack of motivation to work properly.'*

You should not let them go. They need support and training to grow.'

Interviewee 24: *'Nowadays, getting a university degree is just a show-off, and our educational system policies are wrong. The job applicants who had internship courses at the university are more qualified than others.'*

Interviewee 25: *'There is a lack of expertise among job applicants. Many people have university degrees; however, they are not capable of solving organisational problems. Our educational and academic system is not in line with the industry. Also, not all organisations are capable of training. As there are many universities in Iran, the manufacturing sector expects trained and well-educated graduates from universities. Universities have a business vision regarding attracting more students. They can offset their costs by attracting more students each year.'*

Interviewee 26: *'We have the challenge of identifying the right person for the jobs as universities do not value their students' high level of knowledge. The universities' only aim is to graduate more students without considering the quality of their knowledge. These*

<p><i>graduates ask for high salaries.'</i></p> <p>Interviewee 28: <i>'We have the challenge of recruiting managers with high knowledge of management skills.'</i></p>		
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Appendix 5.1: The interviewees' responses regarding the link between job dissatisfaction and wrong selection

Interviewees	Responses	Personality questions considered in the selection
1	<i>'We have not checked if job dissatisfaction was due to the wrong recruitment because we had a lack of time.'</i>	No
2	<i>'I came to this conclusion that the people we had problems with and have a lack of productivity in the organisation were due to disregarding their personality parameters. Before dismissal, we try the job transfer and relocating them to jobs that are close to their personality type. Most of them by changing their job becomes more effective.'</i>	No
3	<i>'We did not recognise that the wrong selection caused later job dissatisfaction.'</i>	No
4	<i>'Yes, we have done that. We have updated recruitment forms several times. The four-page selection form was already two pages, and we went into more detail regarding the personality type. We have added 12 questions in the recruitment form in which job candidates identify their priority which shows their personality priority.'</i>	Officially applied
5	<i>'Organisations often make the mistake of not attracting the right person because of economic, political and family pressures (cronyism and nepotism) and disregarding the KSAOs and personality criteria. It is mostly the employer's mistake.'</i>	No

6	<i>'We had to do the job transfer regarding the person's personality after recruitment because of wrong selection.'</i>	Officially applied
7	<i>'Yes, it happened, and we said if we want to hire him/her again, we won't. Most of them were well-connected candidates.'</i>	Officially applied
8	<i>'We have not checked the nexus between job dissatisfaction and wrong selection. Even if the managers think that the selection was wrong, the job transfer process is very difficult and, in this regard, management prefers everyone stands in his/her job.'</i>	No
9	<i>'Anyone who leaves the organisation has an exit interview. Most of the reasons for leaving were not due to job dissatisfaction or wrong recruitment, and it was mostly due to immigration or other working conditions.'</i>	Unofficially applied
10	<i>'We selected the wrong people whose personalities did not fit their job roles. We have not changed the recruitment procedure yet but try to determine the incompatibility in a short time after hiring.'</i>	No
11	<i>'In case of a problem, we usually check who the hiring team were and review the employee's recruitment file. We use different methods to diagnose the problem. First, we find out if the job dissatisfaction has a reason is lack of knowledge, skills, motivation, attitude or behavioural problems. All of these factors can affect individuals' dissatisfaction. For example, if an employee has changed his work unit several times in the short term, it leads us to see if there is a problem with the person or the manager. Sometimes we are aware that the problem is the well-connected recruitment who inevitably was not located in the right place, and we are sure that in future this recruitment will make a problem for us.'</i>	Officially applied
12	<i>'We did the job transfer but not in a standard plan as we found that the new job would be better. We had at least 12 job transfers this year.'</i>	Officially applied
13	<i>'The company has concluded that many people should not be hired as their personality and KSAOs do not match with their job roles.'</i>	No
14	<i>'As we do the personality test officially, we have fewer problems recruiting the wrong person. One of the biggest injustices is putting someone in a</i>	Officially applied

	<i>job that does not meet the required qualifications. It is very important to do the job entry correctly, and if we find someone has a problem after hiring, we try to do the job transfer.'</i>	
15	<i>'We have checked if the dissatisfaction relates to the wrong selection, but it was not too much.'</i>	Officially applied
16	<i>'It happened a lot that we found out the selection was wrong.'</i>	No
17	<i>'We recognised that the wrong selection causes later job dissatisfaction.'</i>	No
18	<i>'Most of the wrong selections were as the result of well-connected people who have not qualified organisational behaviour and not only have job dissatisfaction but also makes trouble for us and others.'</i>	No
19	<i>'Many times, we may have made a mistake, and we changed the rules.'</i>	No
20	<i>'The incompatibility of job and personality has not happened yet. However, if it happens, we will review our selection process.'</i>	Unofficially applied
21	The interviewees provided no specific answer.	No
22	<i>'Few HR managers accept this as they do not have a systematic view of the organisation. For example, they say the production unit asked us to hire a person, which is not our fault. HR managers have 50% fault as they have an administrative role, not a final decision-maker. In Japan, HR is on top of the board. In Iran, they don't even have it on the organisational chart in some organisations. In Iran, they see HR as a service unit rather than a productive and value-added unit.'</i>	Officially applied
23	The interviewees provided no specific answer.	Officially applied
24	No specific answer was provided by the interviewees.	No
25	<i>'We did not check if job dissatisfaction resulted from wrong recruitment. It is possible but not very bold. There are some exceptions. The number of wrong selections is not considered to come up in statistics.'</i>	No
26	<i>'I never said hiring was wrong. According to my experience with just one job transfer, the dissatisfaction problem has been solved.'</i>	No
27	<i>'We never looked for the problem in selection.'</i>	No
28	<i>'We had one case where after a long time I saw that he is an introvert and isolationist person, we did the job transfer and got him out of teamwork.'</i>	No

	<i>We did not change the selection process but considered the job transfer as a solution to overcome the job dissatisfaction.'</i>	
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Result:

17 organisations have not applied PATs.

11 organisations applied PATs (officially and unofficially)