

### **ABSTRACT**

This paper reports on a study of the perspectives of Australian human resource professionals of the likely impact of Fourth Industrial Revolution (FIR) technologies on workplaces, employees and their jobs, as well as on their professional roles and competencies. The findings show that while most believe that such technologies might be useful for their organisations and assist with improving job performance, increasing productivity and making jobs easier for employees, contrarily, many did not intend to use them in the foreseeable future. Marginal support was also evident about the potential contributions of FIR technologies to HR process enhancement and overall HR effectiveness. A large majority of respondents were also not impressed with current Australian government FIR strategies and policies. In general, the findings indicate that many HR professionals are not well-equipped, in terms of their attitudes, capabilities and competencies, to address the challenges posed by the impacts of the FIR on their workplaces, future HR roles, systems and processes. There is a need for new HRM theories and models, more innovative systems and processes, and increased support from governments, senior managers and professional associations in order to bridge this significant deficit.

**Key Words:** artificial intelligence, fourth industrial revolution, HRM theory and practice, machine learning, robotics

### **INTRODUCTION**

The impending Fourth Industrial Revolution (FIR), encompassing artificial intelligence (AI), robotics and machine learning, is predicted to have both positive and negative effects on society as a whole, and many workplaces, jobs, employee skills and competencies. Accordingly, it threatens to significantly transform contemporary human resource management (HRM) theories, models, roles and functions (Human Resources Professional Association 2017; Kavanagh, Thite and Johnson 2015; Parry and Tyson 2011; Strohmeier 2007; Willis, Towers and Watson 2018). For example, AI and machine learning technologies are likely to have significant impacts on human resource planning; employee attraction, selection and retention; learning and development; remuneration and benefits systems and career planning functions, amongst others (Deloitte Access Economics – DAE, 2018; Strohmeier and Piazza 2015; Taylor et al 2019; World Economic Forum - WEF 2018). Although few organisations

have yet developed a complete AI-HR system, elements such as machine learning algorithms are already being applied to HRM (Brynjolfsson and McAfee 2014; World Economic Forum 2018). Although the key functions of HR professionals might not be replaced by automation, various individual tasks could be susceptible to digitisation (Arntz, Gregory and Zierahn 2016; Illanes et al 2018).

## **LITERATURE REVIEW**

Technology has changed the management of HR processes, especially in terms of data collection, storage and use. Moreover, it has shifted the very nature of workplaces and how work gets done. It has changed job relationships and communication systems, and reduced 'distance' in organisations, with more employees now working online or in virtual teams from remote parts of the world (Aguinis and Lawal 2013).

As the fourth industrial revolution (4IR) takes shape, the traditional approach to HRM is also expected to change significantly over the next decade due to technological advancements and the ever-changing nature of the workforce. Machine learning will be able to adapt to new circumstances and detect patterns in HR (Russell and Norvig 2014; Stohmeier and Piazza 2015), thus providing management with real-time HR advice without the need of a physical HR professional. As future workforces become more reliant on algorithms, the roles and responsibilities performed by HR professionals will need to alter in order to create value moving forward.

While AI and related technologies are still relatively new to the working world, the potential they present to HR can be immense, influencing turnover predictions, candidate searching, staff rostering, HR sentiment analysis, data extraction from potential employees' resumes, and employee self-service (Stohmeier and Piazza 2015). Parasuraman, Sheridan and Wickens (2000) suggest that human-automation interaction will vary depending on the function performed through automation, such as information or data analysis. However, humans are unlikely to be entirely removed from the task even when the task becomes automated (Save and Feuerberg 2012), so while some occupations might become completely automated, the human element might not disappear entirely.

However, the way we work in the future is almost guaranteed to alter due to the growing use of AI in workforces. This may, contrarily, lead to greater complexity of tasks that will require considerable employee training and preparation; or current jobs will become more simplified as elements of the job become automated (Van den Berge and Ter Weel 2015; Went and Kremer 2015). As such, further research is needed to better understand AI technologies and the effect such technological advancements will have on future workforces and in particular, their HR professionals.

It is clear that employees' future jobs will change, in some form, as a result of AI, and by extension so will the roles and responsibilities of the HR professional. However, the application of machine learning in HR is made more difficult when compared to other fields, such as marketing, because of the nature in which HR acquires data. For example, when evaluating employee satisfaction HR will usually implement a survey once or twice a year to gauge how employees feel about their place of work. However, algorithms need considerably more examples to accurately make analyses and future predictions (Lake, Salakhutdinov and Tenenbaum 2015; Moeller et al 2018). AI technology continually needs new data to make decisions, predictions and offer advice. Therefore, it is imperative that machine learning in HR offers alternative forms of measurements that can substitute these traditional approaches to understanding employee satisfaction (Fuller 2014).

The primary role of AI in any workplace or organisation is to improve efficiency and effectiveness, and in relation to the HR function it is designed to help make recruitment, retention and their management easier (Agrawal et al 2018). It is about streamlining the HR process and in turn lowering costs. AI can aid HR professionals in making the optimal decision when it comes to hiring future employees, job training and job rotation, and can also help improve employee payment systems and evaluations, among other related activities (Mehrabad and Brojeny 2007). According to Singh and Finn (2003), an organisation's ability to attract and retain knowledgeable and skilled employees is one of the most important determinants of organisational effectiveness, and using AI could help streamline this process in a more efficient and effective manner that would be beneficial to HR. AI is capable of extracting key data and text from job applications and comparing this data with job vacancies, making notes on any and all matches (Singh and Finn 2003). In essence, it eliminates the need for the recruiter to review each and every job application, thus allowing the HR professional to spend more time working on other more strategic activities.

According to a recent Ernst & Young (2018) report on AI for HR, there are a vast number of day-to-day benefits associated with the introduction of machine learning technologies to HRM. For example, team managers are able to plan digital training based on skill-gap assessments and conversational AI can help track training progress. The hiring process can also be improved through cognitive solutions that tap into various data sources and reveal new insights that determine an additional layer, that goes beyond previous experience, of a candidate's suitability for the role at hand, thus leading to a more efficient hiring process. Moreover, through employee data, HR is able to access an individual employee's performance ratings and job history, and through the use of chatbots HR will be able to have instant access to information pertaining to top performers and pending transactions or even head count (Ernst and Young 2018). AI also offers HR the opportunity to automate repetitive tasks and enhance focus on more strategic work, thus cutting down on labour costs as machines take over tasks once performed by humans. Saving time in certain areas, such as the processing of new employees or employee requests, can help HR address more innovative aspects of their job that lead to greater efficiency and productivity across the entirety of the organisation.

It is in this context that the findings of our recent research project are presented. The key research question was: *How prepared are Australian HR professionals for the impacts of the FIR on their organisations in general, and their professional roles, skills and functions in particular?* The study was conducted during 2018 in partnership with the Australian Human Resources Institute (AHRI). The project was led by RMIT, which provided funding and ethics approval, together with collaborators from the University of Newcastle, Curtin University and the Australian Institute of Business. The study was undertaken using a series of focus groups, followed by a national survey of AHRI members.

## **RESEARCH DESIGN**

The project adopted a sequential mixed methods research design and utilised two phases. Phase I involved qualitative data collection through a series of focus groups conducted in Sydney, Melbourne, Newcastle, Perth and Adelaide, to elicit relevant themes, and the second quantitative phase involved a survey administered via the AHRI membership database. The underpinning theoretical model (see figure 1) was derived from the strategic HRM and human capital management literature, and linked AI/Robotics adoption and HR effectiveness.

## **Place Figure 1 about here**

A total of nineteen AHRI members participated in the focus groups in phase I. The data from the focus groups were analysed using thematic analysis and NVivo10 software. The survey in phase II was distributed by AHRI to AHRI members with responses submitted to an anonymous website that could be accessed only by the research team. Overall, 150 completed valid responses were received. The survey was analysed using SPSS and ANOVA software and included regression analysis. In the next section, the phase II survey findings are presented first, together with a thematic ‘snapshot’ of the phase I focus group responses.

The limitations of the study include the modest sample size and the lack of focus group participants from Tasmania, Northern Territory and Queensland.

## **RESEARCH FINDINGS**

### **Sample Demographics**

The final sample size for the survey ( $n = 250$ ) comprised nearly 70% females and 30% males with most respondents (88%) aged between 36 and 65 years. A majority had postgraduate HRM qualifications (68%) with a further 23% holding bachelor’s degrees. Less than 10% had VET qualifications. Most respondents reported their positions as HR manager (43%) or HR directors (21%), with smaller numbers self-reporting as HR consultants/advisers or HR administrators.

All Australian states were represented in the survey, with the highest proportions from Victoria and New South Wales (26 percent), with a relatively high percentage from Queensland (13.6%) and Western Australia (13.2%). The majority of organisations represented were private companies (49.2%) or from the public sector (29.6%), while government-owned enterprises represented only 4.8 per cent of the sample. The key industry sectors represented included professional, scientific and technical (17.2%), public administration and safety (11.6%) and education and training (9.6%), with smaller proportions evident across all ABS categories. In terms of organisation size, 40.8 per cent of respondents were working in large organisations (1,000 and over employees), small organisations (100-499 employees) comprised 27 per cent of the sample, while only 8 per cent of participants worked in medium size organisations (500- 999 employees).

Significantly for this study, a large majority of the respondents' organisations were described as being in the Third Industrial Revolution (using Computers and Automation – 65%) stage, with 13% in the Second (using Mass Production) Stage, and only 12% in the FIR stage (using Cyber-Physical systems).

### **FIR Technologies & Human Resource Management**

Table 1 shows the most common FIR software/applications used in HR departments. Some widely-used applications such as Kronos and BambooHR were not well represented (3% and 1% respectively). The most popular software in this sample was SAP SuccessFactors, used by 18.81 per cent of total respondents. The most unanticipated findings here were the high levels of 'other', 'none' and unsure' responses.

#### **Insert Table 1 about here**

The three most common HRM uses for these software applications, in order of perceived importance, were training and development (2.66), performance management (2.65) and compensation and reward systems (2.60). However, the overall mean was only 2.5046, that is less than 'moderate' on the scale, with all HRM functions rated between 'low' and 'moderate' in their usage. Functions comprised: HR audits and surveys (2.39), employee benefits (2.49), health and safety (2.52), HR planning and career development (2.31), staffing (2.55) and employee/industrial relations (2.28).

### **Current HRM FIR software usage, supervisory, training and technical support**

The current adoption of FIR technologies in HRM functions appears limited amongst our sample group with a mean score of only 2.8485 (low-medium), which supports the above findings concerning specific applications. Supervisory and technical support for such developments was also rated relatively low (means were 2.7682 and 2.8945 respectively), but training support received a higher mean rating at (3.4061 – moderate-high). This inconsistency might be explained by confusion about the levels of broader training support in respondents' organisations (i.e. general versus more specific training assistance).

### **Future Implementation Strategies of FIR Technologies, & Top Management Support**

The strategic intent to employ FIR technologies in the organisations represented by the survey respondents received only low-moderate support (mean – 2.7500). Specific technologies

currently (or most likely) to be used in future showed considerable divergence amongst the techniques in both stages. The most commonly-reported current technologies were embedded IT systems (79.3%), real-time location systems (60.2%), machine-to-machine communications (50.6%), mobile technology real-time location systems (49.6%) and radio frequency identification - RFID (45.5%). The least employed were artificial intelligence (39.5%), machine learning (28.8%), big data (22%), 3D printing (20.6%) cloud (10.8%) and sensor technologies (9.6%).

Although a glossary of technical terms was provided to the survey participants, it appears that either they did not understand the terminology, or they did not feel comfortable in their applications in relation to HRM functions. In either case, this may be a significant finding from the survey and was also evident about ‘probable future use’ responses. Specifically, the key future technologies cited included 3D printing (79.4%), machine learning (69.9%), artificial intelligence (59.3%), RFID (51.5%) and machine-to-machine communication (45.7%). Less popular technologies included real-time location systems (36.6%), embedded IT systems (16.2%), sensor technology (15.6%), big data (15.2%), cloud technology (10.8%), and mobile technology real-time location systems (4.8%). While some of these latter responses may be attributed to the fact that they are already employed, there were also some surprising discrepancies – notably with respect to big data, cloud and sensor technologies which may be considered crucial to HRM strategies, systems and functions.

#### **Insert Table 2 about here**

The following focus group responses reflect the views of some HR professionals about the associations between FIR technologies and strategic HRM theory and practice. In particular, focus group members indicated the need for HR professionals to leverage technology to enhance their effectiveness and ‘free them up’ to enable them to focus on other things:

*“I think the main theme that consistently appears would be on value creation and I think the Fourth Industrial Revolution can mean many things to different people, but I think at the end of the day what different organisations look at is how you want to take pieces of technology that work for you and how you align in with your business strategy and how you create value for your customers” [Melbourne focus group member].*

Survey respondents' perceptions of top management support for the implementation of AI applications in HRM departments and functions indicated only low to moderate support overall. However, there was a relatively high proportion of non-responses to this question, which may reflect uncertainty about the potential level of top management support.

Our survey reflected findings in other research. Only 55 per cent of HR professionals surveyed<sup>1</sup> by Harvey Nash HR visualised AI as having an impact in the next five years (15 per cent saw it happening at the time of the survey) with a mere 10 per cent not expecting any impact in an 11-plus year time frame (Harvey Nash 2017). It takes time to prepare and adjust to change, the changes may well occur more quickly than expected - the scale of change is already very large - and each change improves the likelihood of additional change (Agrawal, Gans, & Goldfarb, 2018; Moeller, Hodson, & Sangin, 2018). A lack of consideration concerning the implications of these changes for the HR profession is fraught with possible complexities as the future unfolds.

### **FIR usefulness, ease of use and enhancement of HRM functions**

Most survey respondents agreed (but not 'strongly agreed') that AI and robotics technologies will be useful for their organisations in accomplishing tasks more quickly, improving job performance, increasing productivity and making jobs easier for employees. In addition, most respondents were supportive of the notion that new technologies would be easy to use for employees.

With respect to the contributions of FIR technologies to HR process enhancement and overall HR effectiveness, there was only marginal agreement to both aspects. Overall, there was less support for the enhancement of HR processes, especially employee acceptance of such processes and the contribution to HR process consistency across organisations. Table 3 shows the limited support from FIR technologies for the associated dimensions of HR effectiveness.

### **Insert Table 3 here**

The following focus group comments reflect both the positive and negative impacts of the FIR on HRM systems according to some participants:

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<sup>1</sup> More than a thousand HR professionals completed the survey with 17 per cent of respondents C-level and above. Covers APAC, Nordics, Europe and UK.

*“I think all HR practices will be affected as we are talking about databases which are more efficient, more effective and more connected than they were before so it's a different way of thinking, it's a different approach and it's definitely a different pace which will probably wipe out many other parts of existing organisations as well and people – HR people are scared about it because they love it how it is at the moment, they love the template and the work and they start at 8 and finish at 5 and every little change is scary and involves risk. [Perth focus group member].*

*“The major implications are a lot of the work that HR performs now won't exist in the future and that'll mean the profession will really need to redefine the value that it adds to organisations so, which I don't think's a bad thing. I definitely agree many people are very comfortable with that and they don't want it to change because, you know, their career rests on that kind of thing but I think eventually, you know, it'll change to being, you know, HR will be a much more strategic role in an organisation because it won't need to worry too much about transactional kind of work. [Melbourne focus group member].*

## **Impacts of AI on organisational performance**

The following table (Table 4) illustrates respondent's perceptions on a range of broad performance indicators, namely: innovation, customer satisfaction, management control, business supplier/partner relationships, internal process efficiency, customer intelligence and overall organisational performance. The means displayed are similar (at the moderate end of the scale) across all indicators, with less support for the impact on internal process efficiency.

**Insert Table 4 about here**

The following focus group comments reflect the challenges and opportunities offered by the FIR for HR professionals:

*“I feel from a HR perspective, though, my role is to get the workforce ready and to be part of that change, what it means for them in terms of their mindset but also how their job's*

*going to change, so it's almost like I feel like I can't see it yet but I know it's just there. In my role now for four years, so being part of that journey and one of our values, actually, is about innovation and creativity. We've really made it a part of everybody's role. [Sydney focus group member].*

*"I think for a lot of industries, people are probably going to be quite fearful of this and wary of it and I guess it's about getting them on board, getting the buy-in and getting the mindset that this brings opportunity and positivity and to think about, you know, what suitable training and development these employees might need to get up to speed. And just, I guess, supporting them to not feel like they're being left behind and not able to keep up with the technological revolution" [Sydney focus group member].*

## **FIR Impacts on Employee Attitudes, Job Satisfaction & Job Insecurity**

The following table (Table 5) shows respondents' views about the likely effects of the implementation of AI technologies on employee attitudes to their work, job satisfaction and feelings of job insecurity. As might be expected, there was a broader range of negative views in their responses to these potentially sensitive organisational issues.

**Insert Table 5 about here**

### **To use or not to use AI?**

The question related to whether or not to use AI elicited the greatest divergence between respondents, as might be expected. The overall mean was cautiously positive (2.4988), but there was considerable variation between the three options – 'intend to use' (1.92), 'do not intend to use' (3.63) and 'expect to use frequently' (1.93), which was also reflected in some of the focus group responses, as outlined below;

*"So..... for us to date artificial intelligence has had zero impact and for the foreseeable future it won't have any practical impact" [Newcastle focus group member].*

*“I think a lot of organisations aren’t even in this space at the moment, you know, the vast majority of them; so, they understand it’s coming but they don’t realise it’s here, just not in these organisations. It’s a big step from technology to artificial intelligence and machine learning and Internet of Things and there is not really an appetite at the moment” [Perth focus group member].*

## **Government & AHRI Strategy & Policy on FIR**

The final survey question asked respondents to rate federal and state governments on their FIR strategies and policies. As the table shows, a large majority were either ‘not impressed’ (36%) or ‘not impressed at all’ (15.8%), or ‘undecided’ (42.4%). Only 4.3% were ‘impressed’ and 1.4% ‘very impressed’. In the absence of a dedicated strategy at any level of government, this finding may not be surprising and was also evident in the following focus group participants’ comments on the roles of governments and AHRI in facilitating FIR implementation:

*“Government’s role is to stimulate groups of people coming together to share and cross-pollinate ideas and lead them into the future, I think that’s what it does for innovation but it also has on the other side of it some agenda, is how does it regulate so that it’s not a race to the bottom, that externalities are being factored into this, if you cut jobs you – maybe you should pay a levy to, you know, some research or even some welfare so that these people can still be valid members – valued members of society et cetera and things like that and that it’s very difficult for government to balance those two, kind of, things without constricting innovation and things like that. [Perth focus group member].*

*“Well, I think AHRI should or could be more progressive when it comes to innovation and information, I mean, I’m AHRI member and on the council and I love AHRI, but they are playing the ball very safe, very low. But to see what’s on the screen, what’s possible and maybe there are some benefits and maybe there are things which we can learn from mistakes ours did in the past. So before reinventing the wheel have a look how others do it or did it and what they learnt” [Perth focus group member].*

## **CONCLUSION**

These findings indicate that the current adoption of FIR technologies in HRM functions is limited, as is the intention to employ them in the future. Supervisory and technical support for such developments was also rated at relatively low levels. The most commonly-used current technologies were embedded IT systems (79.3%) and the least employed, artificial intelligence (39.5%). Most respondents agreed, however, that AI would be useful for their organisations and would assist with accomplishing tasks more quickly, improving job performance, increasing productivity and making jobs easier for employees. This is interesting given the responses to a later survey question which asked about the intention to use AI where responses indicated that the majority of respondents did not intend to use it. Marginal support was also evident about the potential contributions of FIR technologies to HR process enhancement and overall HR effectiveness. A lack of support was indicated in terms of employee acceptance of such processes, indicating some resistance to change in AI adoption – a factor referred to by several focus group members in relation to both HR professionals and employees in general.

The focus group findings supported the survey results, which indicated that the majority of respondents were not impressed with the lack of government FIR strategies and policies. In general, the findings indicate a current lack of AI adoption both in terms of general usage and usage about HR roles and processes. Consequently, in relation to the title of this paper *Are We There Yet? Australian HR Professionals and the Fourth Industrial Revolution* – the conclusion seems to be not yet!

### **Implications for HRM professionals**

The need for HR to develop new capabilities, such as the ability to deconstruct roles into tasks and develop systems that manage deconstructed sets of tasks is evident from these findings (Willis Towers Watson 2018). Many of these new capabilities are not within the current skill sets of many HR professionals; indeed many of the processes required are not well documented or clear (Denny 2019; Willis Towers Watson 2018; World Economic Forum 2018). In addition, many HR professionals do not appear to be fully aware of the potential of AI, nor of the speed with which it is likely to impact organisations (Harvey Nash 2017). The HR profession needs to work with professional bodies, consulting organisations and universities to develop greater awareness and ensure that HR practitioners can develop the skills needed to participate effectively in organisational changes based on AI.

In particular, there is a need to focus on the introduction of analytics and AI capability amongst HR professionals, managers and employers (Harvard Business Review Analytic Services 2017; PwC & Business Higher Education Forum 2017) and the development of HR systems that support knowledge intensive teamwork, including systems that develop competencies in, motivate, encourage and reward, teamwork and knowledge sharing and provide opportunities to do so (Chuang, Jackson and Jiang 2016).

There will always be ‘leaders and laggards’ in relation to new technologies and AI adoption, as indicated by some of the key themes arising from the surveys and focus groups. Findings clearly indicate the need for organisational leaders to take an active role in AI adoption. This is imperative given that Australian workplaces appear to be lagging when it comes to AI adoption when compared to other developed countries. A recent report on the Automation Readiness Index showed that Australia ranked at number 10 behind South Korea, Germany, Singapore, Japan, Canada, Estonia, France, the UK and the US (Economist Intelligence Unit 2018: 10). Broadly, the Index measured the innovation environment (comprising research and innovation; infrastructure, ethics and safety), education and labour market policies. That said overall focus group members were positive about the future indicating that, while there were some great opportunities and potential in relation to AI adoption in their workplaces, they were unsure how to tap into them. Again, the need for leadership was evident – in their organisations in relation to AHRI and the Australian government. Suggestions to support future AI adoption concerned assistance with the provision of resources, case studies and awareness raising in terms of how AI could be supported more widely about preparedness for the future of work in Australia.

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## Tables

**Table 1: HRM software applications**

Variable	Freq.	Percent	Cum.
BambooHR	2	0.99	0.99
Deputy	1	0.5	1.49
AGE Business Cloud People	4	1.98	3.47
Kronos workforce ready	6	2.97	6.44
SAP SuccessFactors	38	18.81	25.25
Cezanne HR	1	0.5	25.74
Unsure	26	12.87	38.61
None	62	30.69	69.31
Other	62	30.69	100
Total	202	100	

**Table 2: Summary of most used technologies**

Variable	Freq.	Percent	Cum.
<b><i>Mobile technology</i></b>			
Current Use	125	83.33	83.33
Probable Future use	12	8	91.33
Both current and future use	13	8.67	100
Total	150	100	
<b><i>Cloud technology</i></b>			
Current Use	113	74.83	74.83
Probable Future use	27	17.88	92.72
Both current and future use	11	7.28	100
Total	151	100	
<b><i>Embedded IT systems</i></b>			
Current Use	88	79.28	79.28
Probable Future use	18	16.22	95.5
Both current and future use	5	4.5	100
Total	111	100	

**Table 3: Impact of FIR Applications on HR effectiveness**

Strongly agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly disagree (5)
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**Total Mean Score**

Descriptive Statistics			
	N	Mean	Std. Deviation
HR Effectiveness	160	2.0641	.82818

#### Mean Score of Each

Descriptive Statistics			
	N	Mean	Std. Deviation
Help HR perform better	160	2.04	.947
Improve HR responsiveness	160	2.05	.896
Improve HR communication/information	160	2.05	.923
Help HR to enhance organisation's competitiveness	158	2.06	.908
Help to add HR value-added contributions	155	2.10	.891

**Table 4: Mean score of technology acceptance, business process performance & organisation performance**

Variable	Obs	Mean	Std. Dev.	Min	Max
Task productivity	145	2.018	0.726	1	5
Innovation	143	2.612	0.922	1	5
Customer satisfaction	143	2.333	0.785	1	5
Management control	144	2.141	0.718	1	5
Business supplier/partner relation benefits	143	2.374	0.698	1	5
Internal process efficiency benefits	145	2.047	0.624	1	5
Customer intelligence benefits	145	2.586	0.749	1	5
Organisation performance	145	2.453	0.754	1	5

**Table 5: AI & Employee Attitudes, Job Satisfaction and Job Insecurity**

Strongly	Agree (2)	Undecided	Disagree (4)	Strongly
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agree (1)	(3)	disagree (5)
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**Total Mean Score**

**Descriptive Statistics**

	N	Mean	Std. Deviation
Employee attitude	140	1.9190	.66411

Strongly agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly disagree (5)
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**Total Mean Score**

**Descriptive Statistics**

	N	Mean	Std. Deviation
Job satisfaction	140	2.7643	.65761

Strongly agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly disagree (5)
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**Total Mean Score**

**Descriptive Statistics**

	N	Mean	Std. Deviation
Job insecurity	140	2.7714	.51896