

A SUBJECTIVE ANALYSIS OF THE DRIVERS OF
WORKPLACE PRODUCTIVITY BEYOND BASIC
COMPENSATION AT MULTI-NATIONAL CORPORATIONS IN
IRELAND

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Abstract

The purpose of this dissertation is to research the drivers of productivity for employees of multi-national corporations (MNCs) in Ireland with a specific focus on the influence of industry competition, employee happiness and financial reward on productivity. This research tests two hypotheses. First, firms which value employee well-being and reward performance achieve greater productivity and second, employees of firms in highly competitive industries feel more pressure to be productive.

The research applied a quantitative method of nonexperimental probabilistic correlational design research to 112 surveys from MNC employees to measure the extent to which the external factors of competition, employee happiness and financial reward influenced the participants productivity. Although all three variables were shown to increase productivity the findings suggest that employee happiness is the most significant influencer of productivity. Additionally the 24 Likert scale questions used in the survey were validated using a Cronbach Alpha test and scored 0.754 which a high reliability score.

Pearson's product moment correlation tests were conducted on the independent variables (reward, happiness and competition) and the dependant variable (productivity). The test showed a positive relationship between each of the independent and dependant variables. Additionally, an unpaired independent two samples *t*-test was conducted to identify differences in responses from participants with both MNC and domestic experience versus those solely with MNC experience. The result of that test shown no significant difference between the two groups.

The first hypothesis is accepted since the findings showed that participants valued all forms of reward including financial reward, promotion and benefits and each was shown to have a significant influence on increasing productivity when tested. The second hypothesis cannot be

accepted since there were inconsistent responses from participants on the topic of competition which is reflected in the test findings.

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Chapter 1: Introduction

1.1 Introduction

The purpose of this research is to analyse the drivers of productivity for employees of multinational corporations (MNCs) in Ireland with a specific focus on the influence of industry competition, employee happiness and financial reward. This research tests two hypotheses. First, firms which value employee well-being and reward performance achieve greater productivity and second, employees of firms in highly competitive industries feel more pressure to be productive.

The study begins by introducing the concepts of the research, the aims and objectives and the hypotheses before moving on to discussing the existing literature on concept of productivity in the context of competition, happiness and reward in chapters 1 and 2. Chapter 3 outlines the research questions that this dissertation aims to answer and these question informed the research methodology which is discussed in chapter 4. Chapter 5 analyses the primary data which has been gathered from 112 surveys using SPSS 27 statistical methods and the findings are discussed in chapter 6 before the concluding with a summary of findings, limitations and recommendations for further research in chapter 7.

The literature review discusses research conducted by Amankwah-Amoah, Nyuur and Ifere, (2015) on industry competition, specifically focusing on the role of employee poaching between MNC firms. Employee happiness and the PERMA model developed by Seligman, (2011) as a happiness measuring tool is discussed in the context of MNCs while reward research by Lam, Baum and Pine (2001) is discussed and contrasted with research on non-financial rewards as a motivator.

The research is deterministic in nature and it is founded in the postpositivist worldview and the researcher applied quantitative methods to gather data via closed ended surveys of MNC employees based in Ireland. The research findings were tested using probabilistic correlational tests to analyse the degree of correlation between the independent and dependant variables. A unpaired *t*-test was also conducted to analyses the different, if any, in responses between participants who had previous experience in both domestic and MNC employment and those who had solely been employed by an MNC.

The value of this research is founded in identifying productivity drivers from the employees perspective, questioning whether or not basic salary is the primary driver of productivity or if other factors play a significant role. This research could theoretically be used to influence the design of employee engagement and reward programs based on the employee feedback to maximise the firms resource allocation toward productivity increasing programs.

Maximising the productivity of a firms employees is a goal for all industries, since employees are greatest assets to the firm (Mokhniuk and Yushchyshyna, 2018) and a source of competitive advantage (Groysberg and Lee, 2009). This leads firms to develop innovative programs aimed at encouraging high productivity using traditional incentives like financial rewards and career progression alongside wellbeing and happiness programs like free onsite healthcare, exercise facilities, food, unlimited time off and more. This dissertation will discuss these programs and the survey research identifies the impact that they have on employees perception of their productivity. Irelands economy has also been transformed from agriculture and manufacturing to a services based economy over the last three decades (O'Leary, 2014) in large part due to the influx of MNCs.

MNC employment in Ireland was at its highest ever in 2018 with 241,000 people employed by foreign owned firms (Department of Business, Enterprise and Innovation, 2019). This coincided with a period of economic prosperity as Ireland led Europe as the continents largest recipient of foreign direct investment and also ranked as the second largest country by GDP (OECD, 2021) and has the highest ranking for Labour productivity forecast globally (OECD, 2021)

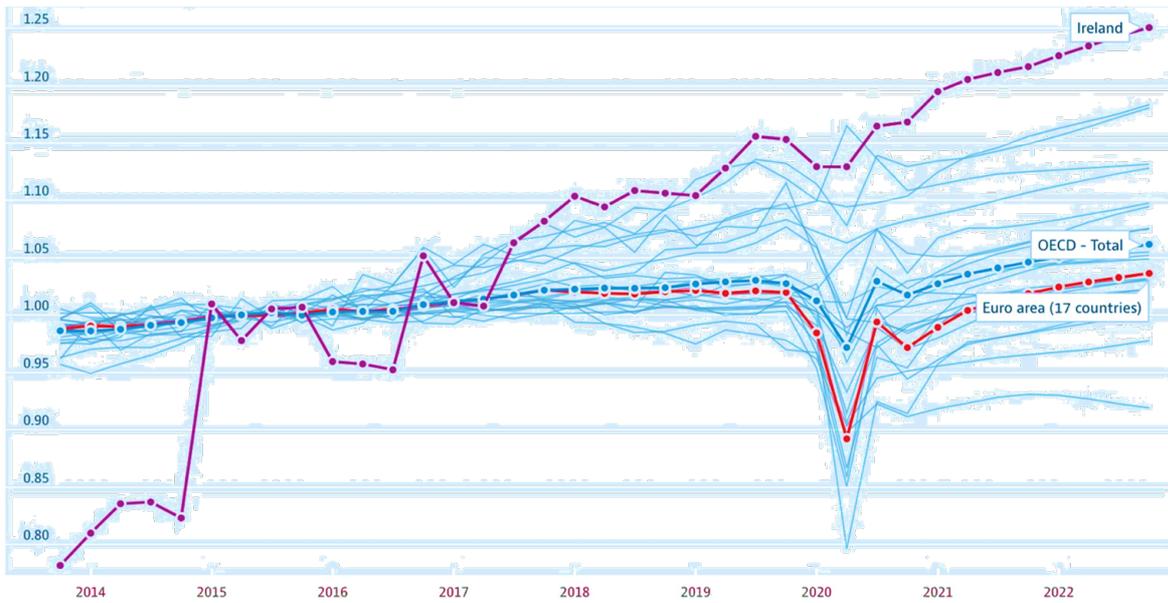


Figure 1: OECD Labour productivity forecast

These statistics show that Ireland has a large MNC workforce and productivity is ranked highly but the data does not show the causes of high productivity in Irish workers and whether it is a result of financial reward, market competition, wellbeing programs or others factors and this study aims to answer that question.

Chapter 2: Literature Review

2.1 Literature Review

High employee productivity denotes one person’s ability to generate greater outputs from the same number of inputs (Kasuar et al., 2021) or the unit of output per the unit of labour (Jarkas and Bitar, 2012) and it can improve the firms total efficiency (Kasuar et al., 2021) and it contributes towards improving wellbeing and economic growth (Ohueri et al., 2018).

However, the micro economic understanding of productivity is difficult to measure, since it encompasses a wide variety of factors. As a result measuring a firm’s productivity requires a sophisticated suite of measures working in tandem to define productivity accurately (Bernolak, 1997). On a macroeconomic level Porter (1998) argues that prosperity is driven by productivity and that high levels of worker productivity is a key contributor to increasing the standard of living in a country.

Factors affecting labour productivity	Jayasinghe and Fernando (2017)	Siriwardana and Ruwanpura (2012)	Ameh and Osegbo (2011)	Baloyi and Bekker (2011)	Frank (2013)	Jarkas and Bitar (2012)	Total
Effective management and supervision	✓	✓	✓	✓	✓	✓	6/6
Financial incentive	✓	✓	✓	✓	✓	✓	5/6
Continuous training and development	✓	✓	✓	✓	✓	✓	5/6
Availability of machines and equipment	✓	✓	✓	✓	✓	✓	4/6
Job security and satisfaction	✓	✓	✓	✓	✓	✓	4/6
Recognition	✓	✓	✓	✓	✓	✓	3/6
Safe and friendly working environment	✓	✓	✓	✓	✓	✓	3/6
Achievement and responsibility	✓	✓	✓	✓	✓	✓	2/6
Well-established goals	✓	✓	✓	✓	✓	✓	2/6
Information and communication	✓	✓	✓	✓	✓	✓	2/6
Weather condition	✓	✓	✓	✓	✓	✓	1/6

Figure 2: Factors Effecting Labour Productivity; Summary of Existing Literature (Ohueri et al., 2018)

Ireland’s workforce productivity is ranked highest globally by the OECD. However the OECD (2021) data on labour compensation per hour worked shows that Irish employees are not among the most well remunerated globally or within the European Union despite working the second highest number of hours per annum in Europe (OECD, 2021). The following literature review

discusses the drivers of employee productivity as a means to explain the cause of high productivity in Ireland.

According to Chew (1988) tools designed to measure productivity must do so appropriately with an understanding of why the business wants to measure the data in the first place and how they plan to use the data, avoiding the pitfalls of being a solely theoretical tool lacking practical application.

Coelli, Battese, O'Donnell and Prasada Rao (2005) discuss the simplified formula for what productivity is, describing a unit of outputs over unit of inputs but stress that the purpose of a productive index is to demonstrate to the business how to increase their output from their existing resources. Chew (1988) goes on to discuss partial factor productivity (PFP) measurement tools which measure specific factors in isolation such as labour hours or material output per kilogram. Many of these factors are alternatives to one and other therefore false positive data is a likely outcome. For example decreasing the labour force to automate tasks may reduce the labour spend but it will also significantly increase the spending on technology. The firm needs to know option is more productive before the changes are made. Productivity therefore should be measured holistically using total factor productivity (TFP) to mitigate against the possibility of misleading data (Coelli, Battese, O'Donnell and Prasada Rao, 2005). Economists have developed several models for measuring productivity such as the Malmquist Index, Data Envelopment Analysis, Stochastic Frontier Analysis and marginal productivity (Pham, 2019).

2.2 Productivity Measurement Philosophies

The PFP and TFP measurements are two opposing productivity measuring concepts but they can also be used together to measure the productivity of a business unit in relation to the wider business. The measurement tools can be broken down further into production frontier approach (PFA) index number approach (INA) and Parametric versus Non-Parametric methods (Jayamaha and M. Mula, 2011).

2.2.1 Production Frontier Analysis

Production Frontier Analysis (PFA) is a method used to benchmark the performance of a single business unit against the rest of the firm. The PFA relies on selecting the industries best

performing firms for comparison sake which allows the firm to compare the productivity of their firm as a whole against their best performing rivals. For example a large software firm may want to compare the productivity of their firm directly with competitors as a whole but they also want to see the productivity data for the software engineering division specifically, removing other divisions like sales, operations, finance which could skew the data. The PFA method is particularly suited to a business application because it is relatively simple analysis to conduct and does not require extensive academic knowledge (Berger and Humphrey, 1997). Users with academic experience in the field of productivity will benefit from using PFA to obtain objective data on best practice within tortuous firms and provides a numerical efficiency value and ranking of firms (Berger and Humphrey, 1997).

2.2.2 Index Number Approach

The Index Number Approach (INA) can be categorized into two distinct variations, economic and axiomatic (McLellan, 2004). Economic INA selects the preferred index type based upon the firms current production capability while axiomatic INA makes this choice based on the preprocessing characteristics of the index (McLellan, 2004). The quality of the input and output data is vital for an accurate result of the index, however, Diewert (1992) argues that even with that prerequisite in place INAs are unreliable measures of productive since they lack a basis in statistical theory (Jayamaha and M. Mula, 2011). Examples of commonly used price indices include Tornqvist, Laspeyres and Malmquist (Kohli, 2004)

2.2.3 Parametric versus Non-Parametric

The measurement of productivity can utilise both parametric and non-parametric approaches and both approaches can account or not account for efficiency (Tortosa-Ausina, Grifell-Tatjé, Armero and Conesa, 2008). This research used two parametric data analysis tests which were the Pearson product moment correlation and an unpaired independent two samples *t*-test. Examples of non-parametric tests include the Spearman correlation and Wilcoxon Signed Rank test.

The choice of test is dependent upon the type of research that has been conducted, the method of measurement (ordinal, scale, nominal) and, assuming there is a research hypothesis, what the nature of that hypothesis is. Not all research will include a hypothesis and some studies will be exploratory, aiming to see what the research presents on the given subject.

2.2.4 Malmquist Index

Tortosa-Ausina et al (2008) applied non-parametric frontier analysis in their productivity study of Spanish savings banks and the researchers applied the Malmquist Index to measure changes in productivity over time. The basis for Malmquist index was first developed by Malmquist (1953) and later developed by Caves, Christensen and Diewert (1982) to become the Malmquist Index (Tortosa-Ausina et al., 2008). The Malmquist Index can be applied to the economic productivity/output comparisons of entire geographic regions or a subset of countries and also to a selection of firms or industries.

2.3 Competition and Productivity

The exact definition of competition is elusive and indistinct (Listra, 2015) and differs depending on the context of the discussion. The term originates in economics and according to the Oxford dictionary it was first used in the 17th century and stems from the Latin term meaning rivalry but according to Boone (2008) the term still cannot be accurately described in the context of the literature due to the variety of application for the term.

This discussion concerns the impact of market competition of productivity and the extent to which it impacts directly or indirectly on it, therefore competition can be defined as the rivalry between firms in a given market for customers, talent, resources and total market share. The level of market competition has been shown to affect firms ability to innovate (Aghion et al. 2005) whereby too little or too much can be equally pernicious for the firm.

In the context of firms which use a pay for performance reward structure Khashabi et al. (2020) proposes that the level of competition in the market directly impacts how much effort employees will use to capture market share. In a high competition arena where market share is fiercely contested by a number of firms, employees will work harder to capture market share because they know that even a small increase is a hard fought gain from a competitor which will be rewarded by their firm. Conversely in low competition markets where firms already enjoy large market share, or total monopoly, employees do not expect the same reward to effort ratio, therefore they are not inclined to strive to capture market share. Khashabi et al. (2020) dubbed this the residual market effect and noted that moderate levels of market competition showed the best results for results for improving productivity.

The professional services sector is the largest employment sector in Ireland with over 1.7 million people employed (OECD, 2021) and it is also the sector where MNCs are most active, showing an 88% growth in services employment in Ireland from 2009-2019 despite a recession affecting the early part of that period (Department of Business, Enterprise and Innovation, 2019).

Total Employment	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% Change 2017-18	% Change 2009-18
Manufacturing and Other Industry	91,909	90,974	91,761	93,635	95,545	97,574	103,162	106,600	110,258	115,585	4.8%	25.8%
Basic and Fabricated Metal Products	2,001	2,084	2,070	2,042	2,062	2,116	2,154	2,109	2,236	2,395	7.1%	19.7%
Chemicals	21,911	21,826	21,709	22,003	22,423	22,777	24,742	26,350	27,455	29,386	7.0%	34.1%
Clothing, Footwear, Leather and Textiles	286	248	176	133	130	123	117	106	124	119	-4.0%	-58.4%
Computer, Electronic and Optical Equipment	15,527	15,942	16,232	16,556	17,562	18,498	20,857	20,642	20,286	20,110	-0.9%	29.5%
Construction, Energy, Water and Waste	355	353	396	384	396	499	801	801	888	957	7.8%	169.6%
Drink and Tobacco	3,701	3,446	2,839	2,738	2,639	2,502	2,352	1,872	1,837	1,913	4.1%	-48.3%
Electrical Equipment	2,878	2,582	2,352	2,565	2,613	2,286	2,161	2,191	2,154	2,080	-3.4%	-27.7%
Food	6,429	6,284	6,420	6,389	6,541	6,272	6,457	6,338	6,531	6,677	2.2%	3.9%
Machinery and Equipment	4,094	4,128	4,232	4,357	4,440	4,596	4,812	4,873	4,855	4,930	1.5%	20.4%
Medical and dental instruments and supplies	23,682	23,536	24,856	25,729	25,905	27,083	27,408	29,468	31,457	33,645	7.0%	42.1%
Miscellaneous Manufacturing & Agriculture, Fishing and Forestry	1,806	1,762	1,635	1,770	1,642	1,703	1,787	1,796	1,819	1,849	1.6%	2.4%
Non-Metallic Minerals	1,104	951	913	736	743	831	885	975	1,112	1,106	-0.5%	0.2%
Paper and Printing	1,476	1,275	1,073	1,232	1,157	1,142	1,132	1,152	1,220	1,179	-3.4%	-20.1%
Rubber and Plastics	3,250	3,240	3,459	3,522	3,626	3,714	4,001	4,349	4,605	5,112	11.0%	57.3%
Transport Equipment	2,972	2,899	3,001	3,079	3,306	3,056	3,158	3,228	3,324	3,772	13.5%	26.9%
Wood and Wood Products	437	418	398	400	360	376	338	350	355	355	0.0%	-18.8%
Services	66,641	69,374	74,589	80,225	85,627	91,105	98,134	108,175	116,550	125,503	7.7%	88.3%
Business Services	1,060	1,115	1,366	1,463	1,794	2,459	3,174	3,886	5,034	6,638	31.9%	526.2%
Financial Services	17,283	17,319	18,623	18,955	19,496	20,963	22,775	24,620	26,615	26,955	1.3%	56.0%
Computer consultancy activities	14,932	15,864	16,967	17,131	18,030	18,697	18,478	19,564	19,232	19,767	2.8%	32.4%
Computer facilities management activities	7,716	7,925	8,401	9,664	10,125	10,117	11,075	12,445	13,478	14,962	11.0%	93.9%
Computer programming activities	20,583	20,826	22,196	24,686	26,061	26,680	28,178	29,823	31,589	34,187	8.2%	66.1%
Other Information and Communication	949	1,143	1,287	1,450	1,662	2,114	3,118	4,303	5,406	6,174	14.2%	550.6%
Other Information technology and computer service activities	3,178	4,125	4,621	5,640	7,075	7,833	8,649	10,619	12,221	13,596	11.3%	327.8%
Other Services	940	1,057	1,128	1,236	1,384	2,242	2,687	2,915	2,975	3,224	8.4%	243.0%
Total -All Sectors	158,550	160,348	166,350	173,860	181,172	188,679	201,296	214,775	226,808	241,088	6.3%	52.1%

Figure 3: Foreign-owned Companies - Total Employment by Sector, 2009-2018

Based on the statistics it can be inferred that competition in this sector is high, with all of the major MNC firms competing head to head for business and talent, which according to Smith (1776) helps to drive innovation when compared to less competitive industries. In their study on the relationship between innovation and productivity, Crowley and McCann (2015) found that all forms of innovation had a positive effect on increasing productivity.

The Irish workforce is can also be considered competitive since over 55% of Irish adults over 25 have a third level degree which is the highest in the OECD (OECD, 2021). Ireland also had the highest number of maths, science and technology graduates per capita within the European Union with 36.9 graduates per 1,000 inhabitants aged 20-29 (Eurostat, 2021). The high percentage of graduates in Ireland combined with the presence of MNCs increases competition in the market and moving laterally between a small number of firms per industry is becoming

increasingly common (McDonald, 2005) and can be driven by higher compensation and increased benefits.

Employees may choose to move between these companies may also be due to unmet expectations (Gkorezis and Kastritsi, 2017). Gkorezis and Kastritsi (2017) study looks specifically at newcomers to a firm and found that boredom played a significant role in how employees felt their expectations were not being met which had a knock on effect on their motivation. MNC firms have tended to adopt similar organisational structure to other firms in their industry which makes it easier for employees to slot into similar roles at another firm. However, this familiarity may also lead to the boredom that Gkorezis and Kastritsi (2017) discuss due to a lack of professional challenge.

The level of employer competition in these small markets can be a positive for employees and can lead to higher compensation and benefits (Khashabi et al., 2020). Khashabi et al (2020) discusses what they call the competitor response effect, a term which refers to the reactionary nature of competition within a closed market. In this regard changes to one firms compensation and benefits strategy which harness positive results are often replicated by competitors resulting in innovative practices becoming the new standard for employees in that industry.

Rawal and Singh (2018) researched the role of generational differences on employee expectations by conducting a cross-section study on the expectations of generation X and generation Y employees. The study found that the expectations of both groups were broadly homogeneous, in part due to the nature of the work undertaken. Nevertheless both groups did cite the importance of variety in their work and the of a positive working environment. Anitha and Aruna (2015) conducted a similar study and found that generation Y placed a higher value on career development and mentoring than previous generations.

The COVID-19 pandemic has also had an impact on employee benefits and highlighted the connection between an employee's personal and professional lives as many struggled to adjust to the demands of fulfilling their full-time jobs while parenting or caregiving (Allen, 2021). Employers are recognising the need for change and adapting their benefits policies address employee concerns (Klein, 2021) and their ability to do this successful may also become another source of competitive advantage with employee retention and high productivity.

In terms of high value employers and the size of the employee talent pool, the market in Ireland is similar to Silicon Valley, the birthplace of the technology sector which is now a cornerstone of the Irish economy. Both markets have intense competition which necessitates a flexible attraction and retention strategy (Hegarty, 2018) forcing employers to meet the evolving needs of employees before a competitor can lure them away. The evolving expectations of employees can include traditional elements like above market compensation, health insurance, employer retirement contributions and stock as well as non-traditional elements like a defined career plan, inclusive culture, education reimbursement and flexible hours (Hegarty, 2018).

2.3.2 Employee Poaching, Mobility Constraints & Co-Opetition

Employee poaching, sometimes called predatory hiring or lateral hiring refers to an attempt by one firm to find, attract and hire one or more employees from a rival firm (Amankwah-Amoah, Nyuur and Ifere, 2015) as a means to expedite the learning phase when filling a role which has been vacated or the firm is expanding into a new business area (Gardner, 2002). Firms attempting to do the latter will benefit from the employees array of contacts and experience as well as trade secrets or proprietary information belonging to their previous employer which would be valuable to a rival, and the acquisition of top talent has been cited as a fundamental requirement when attempting to competing a new market segment or industry (Adomako et al., 2021).

The ability of one firm to attract and retain high performing employees can be viewed as a source of competitive advantage over rivals (Birt, Wallis and Winternitz, 2004) particularly in the evolving technology space where breakthroughs and new developments frequently open up entirely new segments (Groysberg and Lee, 2009). The battle between MNCs to attracted high value knowledge workers has intensified in recent years as the economies of the destinations countries like Ireland have move away from manufacturing towards services (Aguinis, Gottfredson and Joo, 2012). This practice of poaching has a number of obvious benefits for the poaching firm, namely strengthening their market position while weakening a rival and also avoiding the cost of training and development by poaching ready-made talent (Panagiotakopoulos, 2012).

In some cases where a large number of employees have been poached by a rival the original employer has taken the poaching firm to court citing anti-competitive behaviour, as occurred

when SAP AG took rival Siebel to court for poaching more than 20 of their senior managers (Kim, 2013) and six of the largest software firms including Apple and Google agreed to stop the practice in 2010 for a period of at least 5 years, however, it's unclear if the practice has stopped entirely (Kirchgaessner and Menn, 2010). The potentiality of this risk results in some firms requiring employees to sign non-compete agreements to protect themselves from poaching (Morgan, 2019).

Nguyen (2020) discussed the role of non-compete agreements in the technology industry and in particular the impact the agreements have on compensation packages when the enforceability of the agreement is low. California banned the use of non-compete agreements which led to an increase in compensation for high value employees compared with states which enforce non-compete agreements since the employers don't have the safety net of the non-compete agreement to protect them from predatory hiring therefore they aim to retain employees by offering high compensation packages (Balasubramanian et al., 2019).

The extent and variety of compensation and benefits offered in the tech industry can also be a barrier for many employees to leave the industry since many other industries don't offer the same benefits (Ahn and Shao, 2020). Fox (2010) found that experienced engineers in Sweden incurred higher costs when moving to new firms due to the level of compensation and benefits they currently receive and the losses they would experience by moving, concluding that these employees were less susceptible to poaching than less experienced colleagues.

However, employees seeking to move within the industry are also faced with overcoming two forms of mobility constraints which are punitive and premium (Kryscynski and Starr, 2019). Punitive constraints refers to the losses an employee would incur in the event of leaving a firm such as clawback payments such as education unrealised stock awards or forgoing bonuses. Premium constraints refers to advantages of the employees current role such as perks and benefits they would lose by leaving the firm.

Clawback payments are contractually required penalties the employee must repay the employer if they exit the firm within a defined period of time after receiving relocation payments, education fee reimbursement or signing on bonuses (Chhetri, Gekara, Manzoni and Montague, 2018).

Many employers stipulate that bonus payments are only payable to employees who are still employed on the pay-out date, therefore an employee must waive their bonus if they leave before that time. Stock awards will cease vesting at the time the employee exits the firm and employers are typically unable to sell partially vested stock awards. The non-compete clause, if enforceable, could go further by barring the employee from undertaking a new role in the industry within a set period of time sometimes referred to as a cooling off period (Morgan, 2019).

Punitive and premium constraints work in tandem to increase the employers power and ability to retain employees (Nguyen, 2020) and if choosing between increasing premium constraints and relying on a non-compete agreement the latter is a cheaper option for the employer provided they are in a state or country which enforces said agreement (Balasubramanian et al., 2019).

In some cases the an employer will enter into negotiations with an employee who has been offered a role at a competitor in an attempt to retain the employee. This counter-offer practice is typically restricted to high value employees and in one study found that in almost all cases the company making the counter offer is more successful in retaining the employee (Cotter and Henley, 2008).

Research into the effects of poaching from allies is relatively sparse but Amankwah-Amoah (2020) discussed the risk of over estimating the value of a poached employee or teams value and the perfunctory assumption that past successes were due to that employee or team and/or would be replicated by the poaching firm, aptly dubbed the Winners Curse.

Amankwah-Amoah (2020) goes on to discuss poaching in the context of co-opetition, a process whereby rival firms co-operate on a workstream to their mutual benefit while continue to compete on others. This is common practice in many emerging technology fields where the costs of research and development are higher. Toyota, the world's largest automaker recently partnered with Chinese eclectic autometer Build Your Dream (BYD) to purchase drivetrains from them (Inagaki, 2019) which will power Toyota's fleet of electric vehicles.

Co-opetition can be seen high risk for both firms since they are exposing their internal processes and procedures to a direct rival as well as connecting their employees, who may be

industry leading experts on a given workstream, with a rival which can increase the likelihood of poaching at a later stage (Amankwah-Amoah, 2020)

Longitudinal studies on the relationship between competition and productivity by Nickell (1996) and Disney, Haskel and Heden (2003) showed that a higher number of competitors in a market combined with lower rent costs led to increases in productivity and highlighted the role of domestic competition to creating global juggernauts like Google and Facebook. Zlatcu and Clodnitchi (2018) suggest that competition increases productivity by increasing the pressure on employees to drive product efficiency in order for the firm to remain relevant in the market.

The authors contrast this with employees in less competitive firms or monopolistic industries where that pressure is not present where employees felt that a greater effort would not yield greater rewards nor punishment by way or career opportunities or pay increases.

2.4 Productivity and Employee Happiness

For the purpose of discussion a happy person is defined as someone who regularly experiences and displays positive emotions such as joy, enthusiasm and earnestness (Boehm and Lyubomirsky, 2008). This definition focuses on the experience of positive emotion because those are a common characteristic of happiness and it is the frequency of these feelings, not the intensity, that contributes most to overall happiness (Diener, Sandvik and Pavot, 2009)

2.4.1 Subjective Wellbeing, the PERMA Model and Sleep effect on Happiness

Unhappiness, low self-esteem and other forms poor employee wellbeing can lead to absence from work, reduced productivity and poor decision making by employees (Price and Hooijberg, 1992), demonstrating the importance of a firms commitment to nurturing wellbeing. Unhappy employees are more likely to leave the firm, thus employee retention programs which focus specifically on happiness are important (Zala and Rajani, 2021). A study by Dieringer, Lenz, Hayden and Peterson (2017) on the relationship between negative career thoughts and feelings of depression and hopelessness found that the two main causes were confusion related to making decisions and commitment anxiety. The findings could indicate the need for a greater level of career support and counselling for those most at risk in early career employment. It is also observed that maintaining high levels of productivity is more difficult for some roles than others with creative roles in MNCs cited as being among the most difficult (Porter, 1980)

Employee happiness can be measure using the PERMA model, which assesses positive emotion, engagement, relationships, meaning and accomplishment (Seligman, 2011). Seligman is credited with leading the shift in psychology research towards positive topics like wellbeing and happiness and the PERMA model, a result of that shift, allows researchers to measure the data they've gathered against a model of wellbeing. As discussed by Kun, Balogh and Krasz (2016) measures of wellbeing are subjective and they are focused on the individual rather than a collective group, in order to gather reliable data on how employees feel and think in the workplace.

DiMaria, Peroni and Sarracino's (2019) subjective study of 20 European countries found that firms which placed the highest value on the overall well-being of their employees saw an increase in productivity. Firms are incentivised to create working environments which drive happiness (Veenhoven, 2009) but they face the challenge of defining happiness, given its subjective nature and they have observed a disparity between the employees and the managers view of happiness (Benuyenah and Pandya, 2020).

A study by Kamal (2019) on the correlation between sleep and happiness found that an increase in average sleep did contribute to an increase in reported happiness. Using the conservation of resources theory, Sayre, Grandey and Almeida's (2020) study of the effect of sleep on managers productivity found that managers rarely got the recommended amount of sleep and they viewed increased sleep as both a gain and a loss. Managers felt that although more sleep led to increased effectiveness it also left them less time to complete daily tasks, creating a long term pattern of under-sleeping.

2.4.2 Office Environment, Happiness and Productivity

The office environment, casual or formal, can affect the culture of the organisation and the casual approach adopted by most MNC, particularly in the technology industry has had a net positive impact on corporate culture at those firms (Foust, Cassill and Herr, 1999) and according to Rasheed, Khoshbakht and Baird (2021) the physical office environment is crucial to supporting high performance, regardless of the nature of the employees work.

The lack of strict attire requirements can also be seen as more inclusive of those who cannot afford or do not feel comfortable in formal business wear, therefore increasing those employees satisfaction in the workplace environment (Foust, Cassill and Herr, 1999). Sohail Butt, Wen and Yassir Hussain (2021) found a direct correlation between the office environment and job security with employee happiness in their study of 515 employees in the telecommunications sector.

MNCs in particular have aimed to make the office environments comfortable by providing a vast array of amenities including pool tables, gyms and coffee shops (van Meel and Vos, 2001) and research supports the view that these environments encourage employees to spend more time at work therefore increasing their productivity (Rasheed, Khoshbakht and Baird, 2021). Haynes (2008) study highlighted the difficulty in defining the level of comfort an employee felt in the office environment but concurred that there is sufficient evidence to support the view that increased comfort can lead to greater productivity. Leaman and Bordass (1999) suggest that it's important that employees feel in control of their physical environment and they have a sense of freedom in order to maximising the productivity of the employees within the space.

The technology boom of the 1990s revolutionised the modern workplace and practices introduced by burgeoning technology firms like flexible working hours, free meals and travel and housing allowances have become commonplace within the tech industry and beyond. As workplaces have changed so too have the attitudes of the employees. In particular employee attitudes towards the behaviours of the firms with respect to corporate social responsibility (Rahman, Haski-Leventhal and Pournader, 2016) and particularly for MNC employees the expectations of greater employment benefits have increased (Hegarty, 2018).

In recent years employees at Google, Facebook and Microsoft have stages walkouts and protests against the actions of their firms including sexual misconduct scandals to lucrative partnerships with governments (Rogers, 2021) to develop weapons and surveillance equipment (Bradshaw and Murphy, 2020).

A study by Thalaspitiya (2020) found a positive correlation between employer branding and employee retention concluding that the majority of participants they surveyed valued their association with an employer that had a positive reputation. MNC employee protests alongside

Thalgaspitiya's study demonstrate that employees place a high value on CSR and they expect their employers to uphold the values they've claimed to have.

2.4.3 Promoting Happiness through Engagement and Physical Exercise

The introduction of new tools or practices which necessitate further training is a common cause for a decrease in productivity and resistance to change (Shimoni, 2017). As such efforts to improve the level of motivation to engagement with job training and improve the retention of new information are of value. To that end, Kapp, Valtchanov and Pastore (2020) longitudinal study on the impact of employees playing casual games prior to mandatory training resulted in increased engagement with the learning tool. Employees who played the game spent more time on the learning platform, browsed more of the optional sections and scored higher on average than employees who did not play a game.

Lin, Yao and Chen (2021) study on the effect of happiness on reward for online content creators showed a positive correlation between greater outward displays of happiness and financial gain. Applied to the traditional office context Walsh, Boehm and Lyubomirsky (2018) posit that happier people perform better, are paid more and receive higher evaluation ratings from their managers. Previous studies argued that the success these employees experienced increased their happiness but Boehm and Lyubomirsky (2008) argued the inverse is actually true, that happiness is what led to the employees success.

Joo and Lee (2017) study on workplace happiness in relation to the level of engagement employees felt with their work and the level of perceived organisation support (POS) they received concluded that task engagement and career satisfaction was increased in organisations where employees felt greater levels of POS and psychological capital such as feelings of confidence and optimism. This view is further supported by research by Pan and Zhou (2013) who concluded that career success and internal satisfaction improved the happiness level of their participants.

Physical exercise has been shown to relieve stress and anxiety through a combination of chemical release, endorphins, and distraction from stressful tasks (Kaur Sran, Vats and Wadhawan, 2021). An et al. (2020) concurred with this view and their research concluded that

across all age demographics people with higher levels of physical activity were happier and more satisfied than those with lower levels.

The research shows that the happiness level of employees has a net positive effect on the individual employee, the collective group of employees and the firm. Happy employees are more productive and more likely to work longer hours, engage more with their work and receive higher performance ratings from management. MNCs in Ireland have tended to provide many of the support systems which are shown to increase happiness. These supports include a casual offices environment, relaxed dress codes, high compensation packages and benefits, access to gyms and onsite medical care. By investing in the resources to increase employee happiness MNCs are able to benefit from the increased productivity of those employees.

2.5 Productivity and Reward

Reward refers to the financial benefit afforded to an employee for the purpose of fulfilling their role and the term encompass a wide range of rewards including salary, bonus, company stock and allowances (Gomez-Mejia, 1990). Some types of reward are directly related to individual performance, namely salary, while others may be contingent upon team or firm wide performance such as bonuses and stock awards. Individual rewards are crucial to ensure intrinsic motivation is provided to employees and they feel their individual efforts are recognised while the team based rewards encourage collaboration and shared goals and tie the longer term success of the company to the employees compensation (Schlechter, Hung and Bussin, 2014).

A key consideration for employers when creating the reward structure for a role or for their organisation is how that reward will impact on the attractiveness of the role to candidates and how it will function as a retention tool over time (Rumpel and Medcof, 2006). Numerous studies have demonstrated the importance of reward to candidates when job searching (Cable and Graham, 2000) but interesting research on the role of intangible employer qualities on candidate attraction conducted by Renaud, Morin and Fray (2016) discussed the value of innovative perks like gym facilities, training and development opportunities and the ethics of the firm. The results of the study showed that training and development and ethics had the largest impact on the attractiveness of the firm to the candidates.

Lam, Baum and Pine (2001) argue that there is a clear positive relationship between the financial reward an employee receives and their level of job satisfaction although Erbas and Arat (2012) argued that non-financial rewards had a more substantial impact on motivation than financial incentives which ties into research conducted on the value of non-financial incentives and verbal recognition where study by Delavallade (2021) on the impact of public versus private forms of recognition showed the direct one on one feedback had a more substantial impact on the employees motivation. Interestingly that study also found that direct feedback was preferable to public ‘image motivation’ recognition for increasing the employees level of intrinsic motivation.

Compared against domestic firms, MNCs are more likely to offer rewards beyond basic salary. These rewards can be a recurring annual bonus and equity in the firm (Le, Brewster, Demirbag and Wood, 2013), spot bonuses to reward a particular achievement, referral bonuses for successfully recommending a new employee to the firm and peer nominated bonuses as a form of recognition are also common. As shown by Lee (2007) average compensation has trended upwards over the past century, however, attitudes to towards individual compensation have remained the relatively unchanged (Mitra, Israel and Sharma, 2020).

2.5.1 Standardising Reward in a Global Firm and Salary Negotiation

Firms operating on a global scale must overcome the challenge of standardising their pay practices across multiples subsidiaries to a create a fair system for employees while also not paying above market rate in the subsidiary locations. While standardisation may be the ultimately goal, firms must be flexible when adopting local market norms (Yanadori, 2011). However, business functions like human resources, compliances and legal are improved by localising due to a greater knowledge of regulations and norms which help MNCs to avoid making costly missteps (legally or reputationally) (McGraw, 2014).

Creating a globally consistent reward program is essential if the firm aims to instil employee trust in the process (Watson and Singh, 2005) but this is a more difficult task in a global firm (Gross and Wingerup, 1999). According to Oshagbemi (2000) the size and structure of an employee’s reward is a key to job satisfaction particularly as a driver of internal motivation to perform and excel in their roles.

Examining the structure of a reward package for a series of roles and the influence of that structure on the attractiveness of the roles to knowledge workers, Schlechter, Hung and Bussin (2014) found that basic salary was the most significant factor contributing to the attractiveness of the roles while job benefits and variable bonuses were also cited by participants as compelling. This study was conducted in South Africa which the authors describe as a scarce talent market for knowledge workers, due to the prevalence of knowledge workers emigrating to developed countries. Further research to replicate the study in a talent rich market may yield different results, specifically with a focus on longer term rewards like stock participation.

A change in US employment law in 2016 impacted the way compensations discussions take place at US MNCs and in their subsidiaries around the globe. The change, commonly referred to as a salary history ban, forbids employers from asking US based candidates about their salary history and it was introduced as a means to improve gender based pay by eliminating prior compensation bias, which has historically been used to calculate the offers made by prospective employers (Hemenway, 2020). In place of prior compensation data, MNCs now use the candidates compensation expectations as a means to create competitive offers.

However, while this approach addresses the issue of perpetuating historical underpayment it inadvertently provides greater rewards to candidates who are more willing and able to negotiate their salary over those are less able to do so. Marks and Harold (2009) study showed that candidates who were willing to negotiate their compensation successfully increased their starting salaries by an average of \$5,000 and the study found that a candidates propensity towards accommodating attitudes made them less likely to negotiate thus resulting in lower compensation for those candidates.

A study by Säve-Söderbergh (2019) found that women tended to request lower salaries when negotiating compared to men and they received marginally lower offers than men when both genders requested the same salary, which the author says are contributors towards the gender pay gap. Tellhed and Bjorklund (2010) contributed further by researching negative salary impact of stereotyping women as bad negotiators and found that women lowered their minimum and maximum salary expectations more than men under testing conditions.

The pitfalls of two opposing approaches to calculating compensation demonstrates that MNCs have not yet identified a process which is fair to all types of candidates and there is always

some trade-off. Improving upon this system by adding check and balances to ensure people are not underpaid because of their prior pay, gender or their ability to negotiate should be a key goal for MNCs and domestic firms alike.

2.5.2 Manager Discretion and Pay for Performance

Many organisations allow a defined range for managers to apply discretionary increases or decreases to algorithmic compensation adjustments for their direct report employees (Buckingham and Goodall, 2015) as a means to provide a more accurate reward for an individual's compensation which cannot be accurately captured using a standard algorithmic adjustment (Hewett and Leroy, 2019). The usage of these discretionary ranges opens the door for a debate around how and why they are applied, either for a direct compensatory result following a period of work or a motivational reward to encourage future performance (Bol, Hecht and Smith, 2014). Studies have shown that employees are broadly supportive of discretionary ranges to reward performance more accurately and the majority of negative perceptions toward these tools concerns the specific design and interpretation of the tool by managers (Hewett and Leroy, 2019).

Interestingly, while managers have the ability to use these ranges to increase or decrease the algorithmic reward, it's been observed that no adjustment at all is the more common outcome (Höppe and Moers, 2011). This may be a consequence of the managers unwillingness or inability to justify changes to the employees reward or to their team since resources are scarce the allocation of a large increase to one employee means the manager has limited discretion to reward the rest of the team, thus managers opt to approve the algorithmic amount (Bol, Hecht and Smith, 2014). The motivational impact of the use of the discretionary range is interesting, as Bol, Hecht and Smith (2014) notes an important consideration for the manager to make is the occurrence of uncontrollable events which occur during the performance period and their impact on the decision to reward the employee.

The decision to reward or not reward the employee in the event of an uncontrollable incident which stopped them from achieving a target or goal will affect the motivation of the employee and/or their colleagues and it can set a precedent for how similar situations will be treated in future. In organisations where innovation and problem solving is key, it may not be in the firms interest to reward employees who missed targets, despite the cause of that missed target being

beyond their control. A related thread of research on the manager and employee dynamic by Eldor (2021) showed a positive correlation between managers who lead by example and an increase in employee productivity on the basis that the demonstration of duties as opposed to the instruction to carry them out set clearer expectations for the employee to meet.

According to Gerhart and Fang (2015) over 90% of organisations have adopted a pay for performance framework which is intended to provide motivation for employees to reach and exceed set targets. It's widely accepted that pay for performance can increase motivation and productivity (Cerasoli, Nicklin and Ford, 2014) however some studies have argued that pay for performance frameworks, which are built upon a foundation of expectancy theory (Vroom, 1964) can negatively impact productivity by creating an unwillingness to collaborate with co-workers (Deci, Koestner and Ryan, 1999) as a result of a belief that employees are in direct competition with their co-workers for promotions, performance ratings and discretionary payments from their manager (Bamberger and Belogolovsky, 2017).

It has also been argued that pay for performance frameworks discourage employees from undertaking additional, particularly unseen, work which they do not believe or have not previously seen rewarded by their manager, further reducing productivity (He et al., 2021) and resulting in employees prioritising tasks which are more visible and likely to result in reward if not more important to the firm than the unseen tasks.

This presents an obvious problem for firms which aim to encourage conscientiousness and collaboration in employees by inadvertently discouraging this behaviour by virtue of the reward framework. The presence of trust among colleagues has been shown improve commitment to the role and reduce turnover (Ferre, Connell and Travaglione, 2004), which underlines the need for the firm to clarify to employees the kind of performance they will reward in order to engender trust and collaboration.

However, a recent study by He et al. (2021) challenged the view that pay for performance undermined collaboration by highlighting the important role of collaboration as distinct criteria for performance measurement which, although outside of the employees core role, forms an integral part of the employee evaluation rating and therefore compensation rewards. Google even coined the term 'Googliness' which refers to a person's willingness and ability to

collaborate with others and it is an assessment criteria used in interviews to assess candidates suitability for the firm (Palmer, 2007).

Chapter 3: Research Questions

The objective of this dissertation is to research the drivers of productivity for employees of multi-national corporations (MNCs) in Ireland with a specific focus on the influence that industry competition, employee happiness and financial reward have on productivity. This research tests two hypotheses. First, firms which value employee well-being and reward positive performance achieve greater productivity and second, employees of firms in highly competitive industries feel more pressure to be highly productive. These hypothesis will be tested using a combination of correlational statistics analysis of the survey sections pertaining to happiness, reward and competition as well as analysis of the individual questions on these specific areas.

Additionally there are five research questions which this dissertation aims to answer. Research questions are typically defined as either exploratory, descriptive or causal depending on the nature of the research (Kamper, 2020). The research questions in this study will be both exploratory and causal. Although compensation has been heavily studied and some of the broad themes of this research have previously been discussed, the central question of this research has not be studied before in an Irish MNC setting, therefore the research questions will be exploratory. As the research concerns the relationship between two factors such as reward and productivity, the research questions will also be causal and intended to identified the extent to which one factor influences another.

MNCs, particularly in the technology sector, are usually at the forefront of well-being initiatives like paternity leave, education allowances, work-from home policies and more. Do employee benefits contribute towards productivity and if they do, why? Do employees feel indebted to the firm for availing of these benefits and if so, does this indebtedness increase stress.

Research Questions:

1. What is the single largest influencer on an employee's productivity (base salary, benefits etc)?
2. To what extent does the level of industry competition influence an employee's productivity?

3. To what extent does the physical environment influence an employee's productivity?
4. To what extent does the physical and mental wellbeing influence an employee's productivity?
5. To what extent does career progression influence an employee's productivity?

If conducted at scale this research could help MNC firms to reallocate resources towards factors which contribute most to productivity and eliminate wasted effort for programs which employees say do not significantly impact productivity.

Chapter 4: Research Methodology

The aim of the research methodology was to answer the research questions and hypotheses and establish a cause and effect relationship between competition, happiness, reward and productivity. This research tests two hypotheses. First, firms which value employee well-being and reward positive performance achieve greater productivity and second, employees of firms in highly competitive industries feel more pressure to be highly productive.

Answering these questions required primary data from the MNC employees in Ireland which was gathered via surveys. In total 112 people who are, or were, employed by an MNC in Ireland in the past were asked to complete a closed ended survey which aimed to gather the definitive views of the participants on the external factors which influence their productivity. A survey comprising of 34 questions were divided into five categories shown in figure 4.

Of the 112 participants 4 said they had not worked for an MNC in the past five years, therefore those responses were removed from consideration which reduced the sample size to 108 participants.

Quantitative research methods were applied to the survey data and patterns were drawn from this analysis which is discussed in chapter 5. Given the subject nature of the data gathered this research applies a postpositivist worldview, recognising that while the methods used are scientific and statistical analysis was performed on the findings it is still important to caveat that the research participants were asked to provide their perspectives on the research questions posed which means the data is based on assumptions and individual perspectives (Creswell, 2014). The postpositivist researcher recognises that when studying the actions or beliefs of people, one can never be entirely certain, in the scientific sense, that the information being collected is wholly true. Phillips and Burbules (2000) describe the data gathered from people as tentative and should be treated as such by the researcher, thus a research hypothesis can never be proven to be conclusively proven to be correct or incorrect, rather the evidence gathered can support the research hypothesis or not.

According to Creswell (2014) postpositivist research is deterministic in nature meaning that causes most likely lead to effects but the relationship is not certain. The research worldview or

paradigm forms the basis of the research approach and guides the researchers decision to select a research approach and research method (Ritzer and Guba, 1991).

According to Guba (1990) the research paradigms are characterised by their design according to three buckets which are Ontological, Epistemological and Methodological. Ontological concerns the nature of the knowable information. Epistemological concerns the nature of the relationship between the researcher and the information being researched. Methodological concerns the ways in which the research discovers the knowledge and information they are looking for. This research is postpositivist and therefore it adopts a critical realism ontology, a modified objectivist epistemology and a modified experimental methodology.

Garbarino and Holland (2009) say that studies of productivity should value the concepts of quantitative and qualitative methods and suggests quantitative methods are particularly adept at measuring and evaluating research results and they add crucial context and insights to the research topic (Lanka, Lanka, Rostron and Singh, 2021). The quantitative method does not have to be used in isolation and can be partnered with qualitative research methods if there is value in doing so (Lanka, Lanka, Rostron and Singh, 2021), however, this research focuses solely on quantitative.

The majority of productivity measurements like the index numerical and accounting growth methods are mathematical and quantitative in nature (Modiri, Motlagh and Valmohammadi, 2020). However, the purpose of this study is not to measure productivity itself but rather to measure the influence of external factors on increasing productivity from the employees perspective.

Survey Categories

1. Personal Profile: 7 questions
2. Productivity: 9 questions
3. Competition: 5 questions
4. Reward: 4 questions
5. Happiness: 9 questions

Figure 4: Survey Categories

4.1 Research Approach

The research approach refers to the set of procedures a researcher will use to gather, analyse and interpret data on the research topic (Creswell, 2014). This research applied quantitative methods to gather and interpret the data and answer the research questions. The method selected is informed by the researchers assumptions, the research problem and the target demographic of the study (Creswell, 2014). The quantitative approach was selected since existing research on this subject in the Irish MNC context is sparse and a the influence of external variables (salary, competition, happiness) to the participants productivity is unclear. A component of quantitative research is the formation of themes arising from the primary data gathered. These themes are interpreted by the researcher to identify meaning (Creswell, 2014), which will be covered in the analysis and findings chapter.

A set of comprehensive deep dive case studies analysing MNC firms in multiple industries in Ireland would likely have been the best possible method for gathering a true reflection of the views of MNC employees across the country, however, this was not possible to conduct given the time and access constraints. The case study analysis method was considered since it would allow for a broader range of views across MNCs in Ireland however, attempts to gain direct access to speak to employees of these firms were unsuccessful. Therefore a more flexible approach was adopted with a focus on targeting MNC employees via social media and the researchers professional network. While this method cannot replicate a collection of case studies it does provide value by gathering a participants from wide variety of industries, experience and levels of education.

Prior research by Bosch, Revilla and Paura (2018) showed that millennial participation rates for online surveys were lower compared to older age demographics, however, the sampling method used in this reach resulted in almost half the participants being aged from 18-30. Millennials and Gen X are also more likely to participate in surveys which are accessible via a mobile device. To increase participation from these and all age demographics mobile usability was a key requirement. For this reason Google Forms was chosen as the survey tool which is optimised to work on phones, tablets and PCs.

Research by Ko (2021) and Al-Sakran and Alsudairi (2021) showed a positive relationship between the usability of a mobile website and the level of user engagement and satisfaction with the service, underlining the importance of mobile optimisation for survey participation. Mobile compatibility also allowed for participants to do the survey while commuting or on lunch breaks and since the survey was advertising on mobile friendly sites it was vital that participants were able to follow the survey link from one application directly to the survey without interruption.

4.2 Preparing Data for Analysis

The survey data was gathered via Google Forms which was selected due to the simplicity of the tool, mobile optimisation and user interface. Once the survey was completed and closed to new entries, Google forms collated the results into an excel spreadsheet.

The data analysis was conducted in SPSS 27 but in order to enter the data into SPSS it had to be reformatted. The data downloaded from Google Forms was displayed in the format which was presented to participants i.e. participants answers were displayed in text. SPSS requires the response variables to be input in number format so the first steps of analysis was to codify the results into numeric terms.

To do this each response variable was assigned a number. The range of response variables in the survey questions ranged from 2 to 6 variables. For example, in question one, “what is your gender” participants who responded male were assigned a number 1 while those who responded female were assigned the number 2.

This was applied to all 34 questions until all responses were codified into numbers which could be moved into SPSS. After the data was moved to SPSS identification labels were added to each question. The next step was to code the values of the variables into SPSS and re-attach the relevant labels to said variables. Lastly, the scale of measure (nominal, ordinal, scale) was selected for each question based on the nature of the question being asked which dictates the type of analysis which can be conducted on that responses to that question.

Analysis of the research hypotheses began with the null position, the view that there is no relationship between competition, reward, happiness and productivity and the alternative position which is that there is a relationship between these variables and productivity.

The outcome of the analysis produces a P value, represented in SPSS as sig. Within the social sciences it is generally accepted that if the P value is lower than 5% the null hypothesis position is invalid and the alternative position is accepted. After finding the P value a reliability analysis is required to verify that the result is accurate in these conditions. The Cronbach Alpha analysis was run within SPSS and a score at or above .70 is considered a pass in terms of the reliability of the results.

4.3 Statistical Analysis Tests

In this research the independent variables, which may be influencers, are competition, reward and happiness while the dependant variable which is being affected is productivity.

The tests were conducted using correlational statistical analysis tests, which are used to show a correlation between independent and dependant variables. The correlation between these variables were analysed separately from one and other. Examples of correlational statistics tests are Pearson correlation, which is the most widely used correlational test (Tabatabai et al., 2021), and Spearman correlation. The Pearson correlation was used in this analysis.

Pearson's product moment correlation measures the linear relationship between two variables and demonstrates the level of concordance and discordance between the two and the ratio of those two factors indicates the level of correlation (Liu, 2019). A ratio which skews highly towards concordance is considering to be indicative of a high degree of correlation between

the two variables. The formula in figure 5 shows “describes r as the centred and standardized sum of cross-product of two variables” (Rodgers and Nicewander, 1988, p.61).

$$r = \frac{\sum(X_i - \bar{X})(Y_i - \bar{Y})}{[\sum(X_i - \bar{X})^2 \sum(Y_i - \bar{Y})^2]^{1/2}}$$

Figure 5: Pearson Correlation Formula (Rodgers and Nicewander, 1988)

In this research descriptive methods were also used to analysis the different responses to the research questions based on the grouping variables of gender, age and education level. Descriptive methods include mean, mode and the measurement of variance using standard deviation.

An independent two samples t -test was also conducted to analyse the difference in responses from participants whose sole experience to date has been working for MNCs and those who had also worked for a domestic firm in Ireland. There are three types of t -test which can be conducted based on the relationship between the variables. Those types are unpaired, paired (Welch’s) and single sample (Al-Ataby and Altmimi, 2021). In this research a unpaired t -test was conducted because the two groups being tested are unrelated to one and other and their responses will be contrasted to identify differences. A paired test is suited to testing a single group of people before and after a change event to identify if their responses have been altered by the event.

4.4 Research Design

Quantitative designs are typically categorised as experimental or nonexperimental in design (Creswell, 2014). This research applied nonexperimental correlational design survey research to measure the extent to which competition, happiness and reward influence the employees productivity. The survey method adopted in this research highlighted the views of a small

sample of MNC employees in Ireland. Survey research could be used to draw generalised conclusions about the views of the wider population of MNC employees in Ireland. However, with just 108 participants, the research sample size for this dissertation was far too small to make any generalisations about the broader population.

The use of surveys as a research tools is common across many fields as a simple and effective way to gather data. A crucial part of that process is ensuring that the data gathered from participants is validated and this process beings with the survey design (Yusoff, Arifin and Hadie, 2021). The survey design process is broken into seven steps by Yusoff, Arifin and Hadie (2021) which are shown in figure 5.

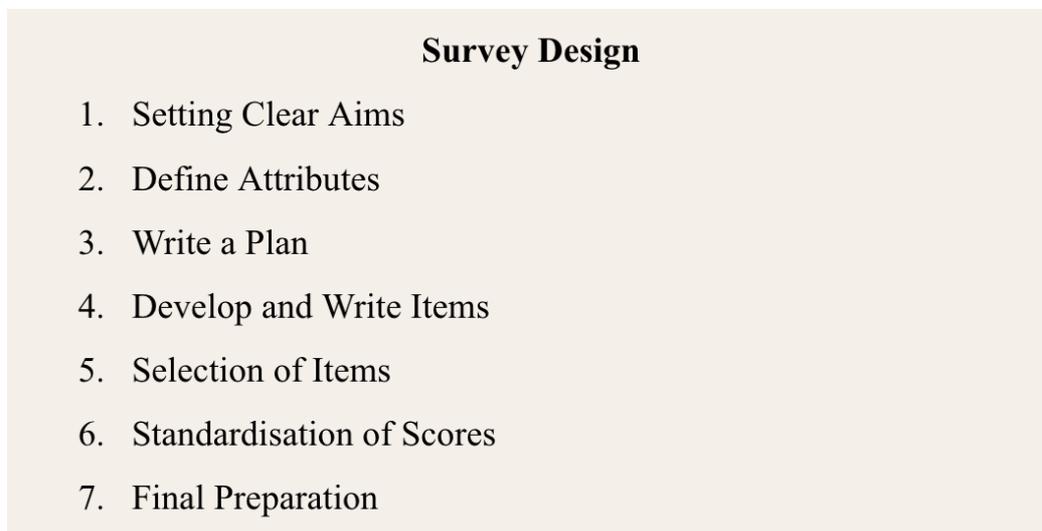


Figure 6: Designing a Survey Yusoff, Arifin and Hadie (2021)

Step 1 in this process requires the researcher to clearly identify the purpose of the survey and what is being measured, which in this research was the drivers of productivity, and next identify who will be targeted which was Irish based employees of MNCs.

Step 2 requires the researcher to develop their understanding of the existing literature on this subject matter which will inform the development of the survey and identify themes which are important to draw out from the participants. This step ensures that the survey, and therefore the results, are grounded in the established literature on the research area.

Step 3 and 4 involves planning the stages of the survey and testing the survey on a smaller number of people to ensure the questions are clear and the results are suitable to answer the

research question. A method of analysing the data should also be established at this point, which in this research is correlational and descriptive statistical testing. The layout of the survey and the posing of the questions can also influence the responses so careful consideration was made to ensure the flow of questions was intuitive when the survey was divided into the five categories shown in figure 4.

Step 5 concerns testing the accuracy of the questions posed. For the purpose of this research a pilot study was conducted with 5 participants to validate the aforementioned clarity and suitability of the survey questions.

Step 6 is the system used to interpret and measure the results of the survey. For this research Pearson correlation and unpaired t-tests were used. Step 7 is a final check that all parts of the survey are functioning to a satisfactory level including the questions, layout and method of analysis.

This survey collected broad range data on the age, gender, education level and work experience of the participants for the purpose of analysis and the possibility of identifying trends based on those factors. Race, sexuality and nationality were not considered.

The survey used exploratory questions posed in two formats, the 5 point Likert scale of least to most agreeable answer and multiple choice where the participants were offered 6 possible answers to the question. Of the 34 survey questions, 3 were posed as multiple choice while the remaining 24 were posed in the Likert scale format and 7 were grouping variables. The multiple choice questions were intended to elicit a more pointed response from candidates on their specific view of the posed question rather than a general level of agreeableness.

Likert scales always adopt an odd number of variables whereby the first and last variables constitute an extremely positive and negative view while the middle variable signifies ambivalence (Mazurek et al., 2021). The Likert scale method can be adapted to a 3, 5 or 7 point scale depending on the preference of the researcher. In this research a 5 point scale was chosen to reduce variance in the responses and produce a more succinct result. As with all Likert scale surveys, the analysis and finding will focus on the holistic result of the responses to the questions for each participant which is demonstrated as a single score. Discussion on specific questions and the responses to them are in chapter 6.

The reliability of the 24 Likert scale questions were validated using a Cronbach Alpha test. The aim of this test is to score above .70 which considered a reliable scale.

4.5 Sampling Technique

Participant selection was conducted via non-probability convenience sampling. The primary tool for selection was an internal message board at a large MNC in Ireland where employees were asked to volunteer to participate in the survey. This message board is restricted to employees of the MNC which ensures the correct demographic was targeted. Additional participants were sought via LinkedIn and the researchers personal network. The majority of the participants were not known to the researcher but it is likely that the participants represent a smaller selection personal profiles based on the selection methods used.

The survey was anonymised and all participants were informed on the context of this research, the aims of the research and how the information will be used. The surveys did not gather personally identifiable data and it was limited to information specific to the participants experience of working for an MNC thus maintaining the privacy of the participants which is a key goal in research design (Maylor, Blackmon and Huemann, 2016). The names of the participants employers were not requested since this research does not concern a specific firm or industry. This anonymity also increased participants comfort level to provide an honest account of their experiences.

The surveys were conducted from May 1 – May 20 2021 and participants were told at the onset the number of questions in the survey and the approximate time to complete which was 5 minutes. Participants were required to answer all questions in order to submit their survey and they must answer yes to the question ‘Have you worked for a multinational company in Ireland?’ to be included in the sample. The responses of 4 participants who answered no to this question were not included in the analysis.

4.6 Ethical Considerations

Each stage of the research was conducted with a respect of the golden rule ethical principle discussed by Myers (2019) which denotes a research approach which endeavours to treat research topic and the survey participants with respect and informing them of the full context

of the research being conducted and its purposes. The participants volunteered to participate and all participants gave their informed consent and they were made aware of their right to discontinue their involvement with the survey at any stage for any reason.

Since this research concerns MNC employees based in Ireland, many of the participants will be from outside of Ireland and English may be a second language to them. Eaton (2020) discussed the ethical considerations of research conducted with non-native English speakers and highlighted the importance informed consent, noting that writing forms may not be the most accessible for this cohort, due to differences in the translation or understanding of the form.

This consideration informed the research design and the use of the Likert scale for the majority of the questions combined with simple language used in the questions mitigated the risk of non-native speakers being confused by a question. Likert scales have been shown improve participant comprehension and they can be consider more inclusive due to their simple format and limited use of language making them more suitable to a broader range of participants (Reed, Wolf, Cotton and Dellon, 2017)

According to Chyung, Kennedy and Campbell (2018) survey designers need to be aware of selection bias among participants and their research shows a closed ended survey designs which present the responses in descending order generate more positive responses. To combat this selection bias the researchers recommend displaying the question responses in ascending order, which is what was used in this research, or taking additional measures to mitigate the section bias if a descending must be used.

4.7 Limitations

The sampling technique used was necessitated by access to the most available group who met the requirements of the research. Although the participants were well matched to the criteria selecting them via the internal message board of one MNC limited the possibility of responses from different industries and increased the likelihood of targeting participants with a similar experience.

To mitigate against this bias, responses were also gathered via LinkedIn and networking. These efforts allowed the results of the survey to be more reflective of the broader MNC employment experience in Ireland across all industries and parts of the country.

The internal message board collection method also introduced the possibility of participants giving more positive responses to questions regarding their view of the employer and how they felt about their reward. It's possible that participants would have felt more open to share if they'd be approached in a setting outside of work. To mitigate this issue it was stressed to participants that the survey is being conducted for academic purposes and is in no way work related and that all responses are entirely anonymous and no contact information is requested.

Using the Likert Scale survey method was efficient and allowed more participants to provide their views on the research topic in a short period of time and it made the analysis of the survey responses simpler to interpret. The Likert scale as a method for subjective data collection has also been criticised by some researchers and Mazurek et al. (2021) found that the variables on the scale are not equidistant or symmetrical and that the gender and age of the participants can lead to statistical differences in responses when interpreting linguistic variables.

However, given the subjective nature of the research topic it may have been valuable to conduct in-depth case study analysis of multiple firms from different industries in Ireland to ensure the results were reflective of the MNC sector in Ireland as a whole and that participants could express themselves freely on the subject as opposed to selecting a multiple choice answer or stating the degree to which they agree with a question.

The 3 multiple choice questions posed to the participants had 6 possible answers with no option for participants to add their own answer. While this limits the potential answers to the 6 options provided it also focuses the participants on answering the question in line with the key themes of the research and negates the possibility of alternative responses which may not be relevant to the questions being posed.

4.8 Conclusion

The research conducted applied a quantitative method of nonexperimental correlational design research to 108 surveys from MNC employees to measure the extent to which competition, employee happiness and financial reward influence the employees productivity.

The use of mobile friendly surveys allowed for a broad range of participants to complete the survey and share their perspective on the research topic. The survey design was methodical and the questions and layout were selected with a consideration of the research themes discussed in the literature review. The survey was validate and tested before being introduced to participants. These research themes arising from the surveys are interpreted by the researcher to identify meaning (Creswell, 2014), which will discussed in chapter 5.

Chapter 5: Analysis and Findings

This section discusses the research findings on the external productivity drivers and describes how these factors have a greater or lesser influence on productivity than basic compensation. Statistical analysis of the research findings was performed using SPSS 27. The analysis and findings will be discussed alongside the research hypotheses and research themes in chapter 6.

The aggregated age data gathered shows that survey results are more reflective of the views of younger MNC employees. The data shows that 45% of participants were under 30 and 39% of participants had between 6 and 10 years total work experience. This finding will be discussed further as a limitation of the research in the conclusion.

5.1 Survey Questions and Structure

The survey was constructed of 34 questions which were categorised in to five options shown in figure 4. There were 7 questions which functioned as grouping variables intended to categorise the participants. The remaining 27 questions were divided into 24 Likert Scale questions and 3 multiple choice.

The five survey categories refer to the key research themes discussed in the literature review which were competition, happiness and reward and participants were asked to comment on the specific factors which influenced their productive to most and to what extent the felt each factor did or did not influence productivity. The objective of the research was to identify if participants felt that competition, reward and happiness increased their productivity. Analysis was performed on each of the three variables.

5.1.1 Survey Questions: Personal Profile

This portion of the survey was made up of 7 questions which were intended to function as grouping variables to be used in the statistical testing later on. The gender breakdown of participants was skewed towards female with 57.1% of participants. The majority (92.8%) of participants were aged between 18 and 50 and the sample can be considered highly educated since 84.8% of participants had an undergraduate or postgraduate degree. The majority of participants also had less than 10 years of experience.

Q1: What is your gender?
Q2: What is your age range?
Q3: What is your highest level of education?
Q4: How many years work experience do you have?
Q5: Which of the following best describes the type of work you do?
Q6: Have you worked for a multinational company in Ireland?
Q7: Have you also worked for a domestic company in Ireland?

While the sample size was not large enough to be representative of the wider MNC population the demographic breakdown of participants poses interesting questions about how well the sample represents the average MNC and domestic employee in Ireland. According to an OECD (2019) report almost 47% of Irish adults aged between 25-64 have received a third level degree. The statistic for women are higher still at 51% and young women aged 25-34 are even higher at 60%. This statistics are in keeping with findings of the research sample which indicates a trend towards higher level education in Ireland further raising the bar of what is required to gain employment in the competitive MNC sector. OECD data also showed that those with a third level degree earn an average of 81% more than those with secundar level education.

The data on the age range of participants and their total work experience suggests that the majority of survey participants were under 35 as 62.5% had less than 10 years total work experience. As mentioned previously 108 of the 112 (96.4%) participants had previous experience at an MNC. Since this study is only interested in the views of MNC employees 4 surveys were disregarded.

A slight majority of participants (53.6%) also had prior experience working for a domestic firm in Ireland. A two samples *t*-test was conducted to find if there was any disparity in responses between these two groups which is discussed further on.

The data gathered on question 5 was not tested using SPSS although the findings are interestingly skewed towards participants who work in sales (39.3%). On the surface this appears to be a reflection of the overall workforce in Ireland, as a services economy, but may also be reflective of the research methodology.

5.1.2 Survey Questions: Productivity

This section was made up of 9 questions and were intended to gather data on how participants viewed their own productivity and the factors which influenced it. Unsurprisingly the majority of participants (92.9%) agreed or strongly agreed that they were productive at work while just 3 participants strongly disagreed with that statement. As expected the majority also said that high productivity was expected and rewarded at their firms and they confirmed that when it is rewarded they are encouraged to continue being productive.

Q8: When I look at a role the most important thing to me is
Q9: I consider myself to be a productive employee
Q10: High productivity is expected at my company
Q11: High productivity is rewarded and/or recognised in my company
Q12: When my productivity is rewarded and/or recognised I am encouraged to continue being productive
Q13: My productivity is tracked and my manager is aware of my contribution
Q14: If my productivity decreased my manager would speak to me about it
Q15: My relationship with my manager affects my productivity
Q16: My productivity is most influence by

The majority of participants said that their productivity was tracked in some way by their manager and they agreed that if it were to decrease they expect that their manager would speak to them about that. Building upon those finding the majority also agreed that their relationship with their direct line manager had an influence on their productivity at work.

In a multiple choice question participants said that the team environment had the largest influence on their productivity ahead of basic salary, incentive rewards, benefits, organisational culture and public recognition.

5.1.3 Survey Questions: Competition

This section included 5 questions on the nature of competition within the participants industry and if it had an influence on their productivity. The findings showed that most (39.3%) participants were unsure if MNCs were more or less competitive than domestic firms. This was the highest percentage of “unsure” responses to any question in the survey by a significant margin. This could be because participants did not feel they had the requisite knowledge or

experience to definitively answer the question, which is supported on the basis that only half of the participants said they had worked for a domestic firm in the past.

Participants overwhelmingly responded in the affirmative that the success of their firm was important to them (90.2%), that they were aware of their firms competitors and were motivated to make their firm more successful (75.9%) and that they felt their industry was more competitive than most (70.6%).

Q17: Working for a multinational company is more challenging than working for a domestic company
Q18: The success of my company is important to me
Q19: I'm aware of my companies competitors and I am motivated to make my company more successful than competitors
Q20: The industry I work in is more competitive than most other industries
Q21: The level of competition between companies in my industry influences my productivity

However, responses to question 21 were somewhat of an outlier compared to the previous question. 47.3% of participants disagreed or strongly disagreed while a relatively high (13.4%) were unsure if industry competition influenced their productivity. Based on the positive responses to question 19 it was expected that a majority would respond in the same way for question 21. Participants may have been confused by the wording of the question or by the difference between industry competition between firms and interpersonal competition between employees.

5.1.4 Survey Questions: Reward

This section was on reward which the existing literature and the prevalence of pay for performance reward structures present in the MNC suggests is the main tool for encouraging high productivity. A surprising response to question 16 showed that the majority of participants cited the team environment as the primary driver of productivity with basic compensation and spot bonuses receiving just 11.6% and 8.9% of votes respectively.

Q22: Company benefits increase my productivity at work. i.e healthcare, working from home, annual leave days
Q23: If my compensation & benefits increased my productivity would also increase
Q24: High productivity will result in a promotion at my company
Q25: A promotion is the primary driver for my productivity

Discussing specifically the role of compensation 86% of the participants agreed that company benefits increased their productivity at work while fewer (64.2%) said that an increase in these benefits would increase their productivity.

Lastly the idea of promotion as a reward incentive for productivity is commonly considered as a motivating factor and 66.1% of the participants agreed that they believe their high productivity would lead to a promotion. A slightly lower percentage of participants cited promotion as the primary driver for their productivity at 58%.

5.1.5 Survey Questions: Happiness

The final section of the survey concerns the role of happiness on productivity and specifically factors which contribute towards happiness which were discussed in the literature review. These factors include the physical environment, stress, personal lives and time away from work.

Q26: My productivity is affected by my physical environment
Q27: I am more productive working from home than I am at my office
Q28: My personal life affects my productivity at work
Q29: I am more productive when I am happy
Q30: I sometimes feel stressed at work
Q31: The stress from my work makes me more productive
Q32: My company could do more to reduce my stress at work
Q33: My stress would be reduced most by
Q34: I sometimes feel guilty about taking time off due to how busy my team/company is

Participants overwhelming (86.7%) agreed that the physical environment did contribute towards their productivity, which validates the investment MNCs have made to develop offices which enable that positive impact. The question of working from home (WFH), which is topical

in the current environment, received the most even distribution of responses from participants. 42.9% said that they are more productive at home, 37.5% said they were not more productive at home and 19.6% were unsure.

The near even distribution of responses suggest that WFH divides opinion and whether or not it improves a person's productivity seems to differ based on the individuals preference or circumstances or both. Contributing factors towards whether or not a participant feels more productive WFH may be the size of their home, it's location or the amount of noise and distractions at home. As offices begin to re-open it seems likely the WFH will continue in some form into 2022. If highly productive employees are happier WFH it may be sensible for firms to allow those employees to continue WFH indefinitely while allowing those who prefer the office to return.

Participants agreed that their personal lives and happiness directly contributed towards their productivity at 82.1% and 98.2% respectively. Just two participants disagreed or were unsure with the latter. Participants agreed that they sometimes felt stressed at work and confirmed that this stress did not help them to be more productive. These responses show a direct link between improving the happiness level of employees by reducing the causes of stress and an increase in productivity. 65.2% felt their employer could do more to reduce their workplace stress and the majority cited an increase in the size of their team as a single biggest contributor towards reducing stress. Taking time away from work to recover physically and mental is a requirement for good mental health and happiness which makes it concerning that 61.6% of participants said they felt guilty about taking time away from work in the past.

These finding from all 5 sections of the survey will be discussed further in chapter 6 and linked back to the research hypotheses, themes and existing literature.

5.2 Testing the Data

The previous section discusses the survey in 5 sections, however, those section were not used in exactly the same order for the statistical testing. This ordering was used to clarify the sections to participants and provide a simple flow of sections. However, in some sections the number of questions used in the testing differs slightly. For example the productivity questions related to promotions can be considered reward questions, therefore they were included as such.

The first test was conducted in three stages using a Pearson product moment correlation. Stage one tested the correlation between reward and productivity. The survey included 6 questions which measured the participants productivity in various ways from self-reported productivity to the effect of their relationship with their manager has on productivity. The mean response to the question of self-reported productivity was 4.31 with a standard deviation of 0.914.

5.2.1 Reward and Productivity Correlation

Since reward is assumed to be a strong influencer based on the existing literature there were 5 questions specific to reward included in the survey. The Pearson correlation was performed on these 11 variables to create a correlation matrix. The results of the test showed that there is a positive correlation between reward and productivity. Within the matrix 10 of the 11 variables had a positive correlation and a score which exceeded the Pearson tests minimum requirement for positive correlation which is 0.05.

The significance level or probability of the relationship between reward and productivity was highest for two questions. The first question posed the following statement to the participant and asked them to answer on a 5 point Likert scale “My relationship with my manager effects my productivity”. This question had an r value of 0.98 and a sig value of 0.314. The second question was posed in the same way and asked “A promotion is the primary driver for my productivity”. This received a significance score of 0.305 and an r value of 0.100.

This result highlights the significance of role the manager on employee productivity and the power of promotion as an incentive. Future research could delve into the type of manager relationships have the most significant impact on an employee’s productivity and which benefits of a promotion are most valued by employees.

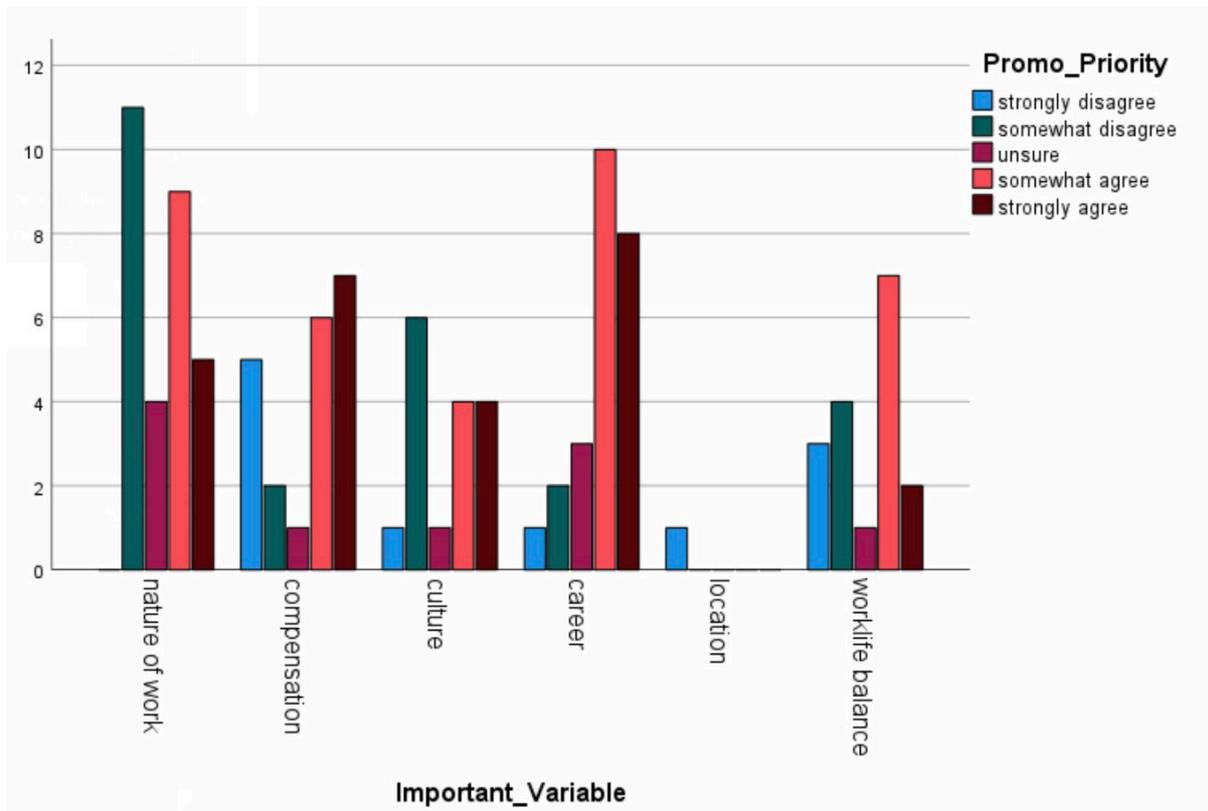


Figure 7: The key factor participants value when looking for a job and the degree to which they felt that promotion is the main driver of their productivity

5.2.2 Happiness and Productivity Correlation

Stage two tested the correlation between happiness and productivity. There were 8 happiness related questions tested. The results of the test showed a positive correlation between productivity and 6 of the 8 happiness questions. The negative correlation of -0.38 and 0.57 was recorded for questions which asked if stress increased productivity and what change would have the greatest impact on reducing their stress at work.

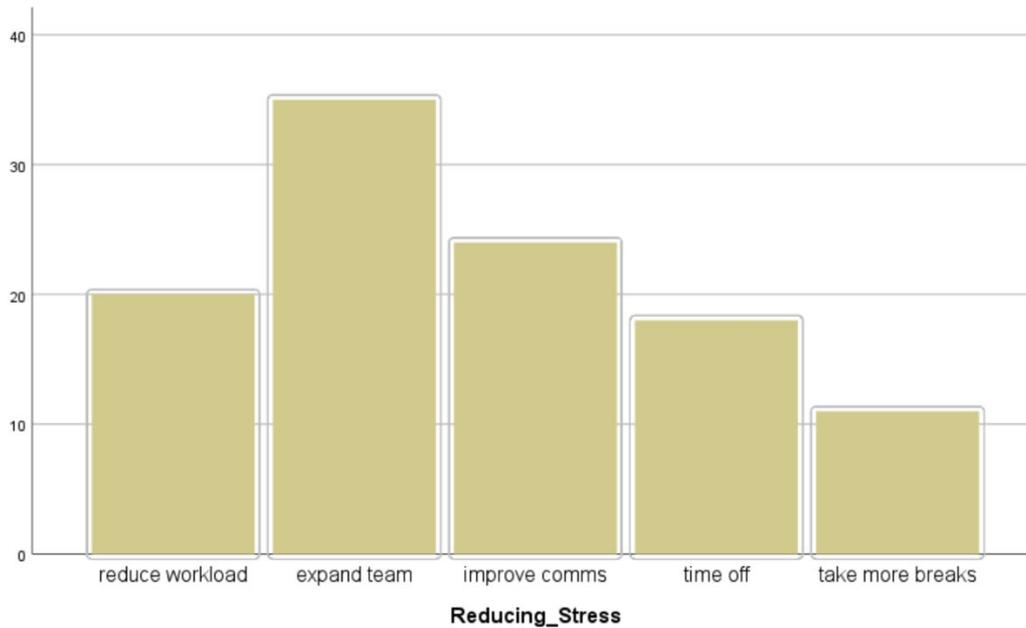


Figure 8: Factors which would reduce participants workplace stress

The responses shown in figure 8 show that the highest proportion of participants felt that expanding the size of their team which would reduce their individual burden would have the largest contribution towards reducing their workplace stress.

5.2.3 Competition and Productivity Correlation

Stage three tested the correlation between competition and productivity. The correlation matrix comprised of 6 proactivity variables and 5 competition variables. The matrix showed a positive correlation for 9 of the 11 variables with exception for negative correlation related to the questions of a managers reaction if productivity decreased and the question of whether or not the participant considered their industry to be competitive. Both questions had a negative correlation of 0.005 and 0.039 respectively. Strong correlation was found for the participants awareness of their firms competitors and their desire to enable their firm to become more successful than rivals.

Figure 9 shows the correlation between candidates who said they are highly competitive and believe their industry is more competitive than others. 92.3% of participants considered themselves productive while 70.6% consider their industry more competitive than others.

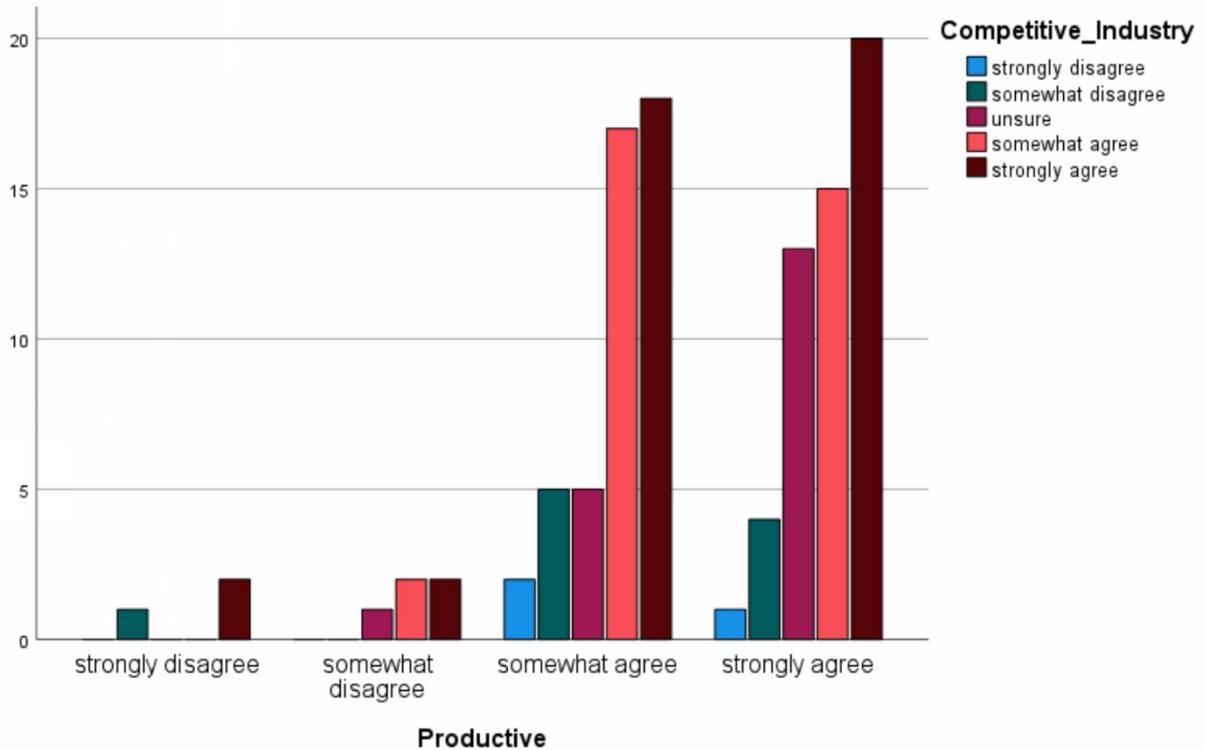


Figure 9: Participants who consider themselves highly productivity and their industry more competitive than most

5.3 T-Testing Domestic versus MNC Responses

The second test conducted on the data was an independent unpaired two samples *t*-test, which aimed to discover if there was a difference in reported productivity for participants who had worked for both domestic and international firms and those who had only worked for international firms. The two samples being tested were reported productivity and domestic employment. All participant in the data set had previously worked for an MNC but fewer than half had also worked for a domestic firm.

After running the test the researcher is presented with an *f* test and significance score (*p* value). If the *p* value is less than the alpha value of 0.05 the variances are not assumed to be equal. In this test the *p* value is greater than 0.05 so the variance is assumed equal.

The results of the test showed a *t* value of 1.648 and a *p* value of .102. When the *p* value of the *t*-test is greater than the alpha value of 0.05 the test is accepts the null hypothesis, which is that there is no difference in reported productivity between the participants who have worked for domestic firms and MNCs.

5.4 The Cronbach Alpha analysis

The Cronbach Alpha analysis was run in SPSS where a score at or above .70 is considered a pass in terms of the reliability of the results. This analysis is only used on scale questions and in this instance it was used to test the reliability of the 24 Likert scale questions in the survey.

The test cannot be used to determine the reliability of one item of the scale in isolation, it must be conducted on full scale. The result of the test showed a Cronbach's Alpha score 0.754. A score above 0.7 is considered reliable while 0.6 or lower is questionable and points to an issue with the scale. The score represents the percentage of variance for the combined items within the scale, which means that a score of 0.754 indicates that 75% of the variance within that score is considered true score or reliable variance (Lance, Butts and Michels, 2006).

To identify issues within the scale the breakdown of item statistics shows the mean and standard deviation for all items within the scale. If one item has a higher mean and standard deviation than the rest that is an indication of an issue with the variance of that item (Ferketich, 1991). The full report of the Cronbach Alpha results are attached in appendix 2.

5.5 Additional Statistical Findings

Similar results were found from an additional *t*-test conducted on whether there was a difference in the impact of the physical environment on employees who had worked for domestic firms and MNCs. This was conducted on the basis that MNCs have developed a reputation for elaborate office designs as discussed in the literature review but the test showed no difference in the impact of these environments on participants who had worked in both office types.

When I look at a role the most important thing to me is
112 responses

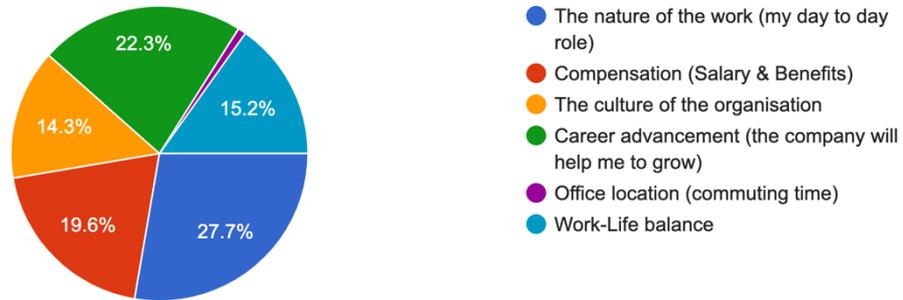


Figure 10: What participants value most when looking for a role

Based on the correlational analysis conducted it is clear that reward, happiness and competition play a role on the participants productivity. Interestingly when asked what they value most when looking for a role, compensation was a less popular choices with just 34.8% of participants selecting those. However, when asked what most effects their productivity the majority of participants (63.4%) selected their team environment and company culture and a higher percentage of people said public recognition was more impactful to their productivity than annual salary, spot bonuses and company benefits.

My productivity is most influence by
112 responses



Figure 11: Largest influence on participants productivity

These results challenged the conventional view that firms can pay for performance and highlights the importance of achieving the far more challenging goal which is to create a positive team environment and company culture that promotes productivity.

Chapter 6: Discussion

This dissertation discusses the nature of productivity and the factors which have the largest influences on it in the context of MNCs in Ireland. The literature review discussed the themes of productivity, competition, reward and happiness and the analysis and findings showed the outcome of the original research conducted on the topic.

This chapter will discuss the perspectives from the existing literature and the findings of the original research and comment on the state of research topic in terms of the themes discussed throughout.

6.1 Contrasting Literature with Original Research

One of the more interesting discoveries from the original research was the participants views of what they felt contributed most toward increasing their productivity. Conventional wisdom suggests that higher salaries and incentive based pay are the primary influences which motivate employees to work harder. This is combined with the implicit promise of career progression and promotion which leads to increased salary, status and responsibility.

It's interesting then that the majority of participants felt that monetary rewards, salary or incentive pay, did not significantly contribute toward their productivity. Instead they said the team environment had the largest impact. If this research was conducted at a scale large enough to be considered representative of the wider Irish MNC workforce, that finding would present a challenge to MNC leaders. Problems which can be solved by spending more money are simple for MNCs to solve. Of the many resources MNCs possess financial power is among their most significant. However, this problem requires time, great leadership and engaging with employees, which is more complex than increasing the reward budget.

While the data shows that creating a positive team environment supports high productivity, the definition of what and how to create that environment is inherently elusive and undefined. These finding is further supported by the correlational tests on the effects of the employee and manger relationship which the Pearson test found had a high correlation with productivity. There is a strong correlation between the existing literatures view on the importance of the

physical office environment and the findings gathered from survey participants. The literature and the original research strongly suggest that the environment has a significant impact on employee productivity, but employee engagement is required to know if that ideal environment is WFH or the office and the firm must identify ways to support both.

High productivity is just as likely to be achieved with authoritarian leadership as with laissez faire, depending on the environment and it appears to be influenced to a greater extent by who is leading rather than the style of leadership. In essence, any management style can work with the right leader. This challenge is played out at an exaggerated scale in professional sports where team owners replace team managers repeatedly until they find leader who can strike the balance between improving a team's output (productivity) while still allowing for creative freedom and autonomy which promotes happiness.

In the business context leaders could use these findings to increase productivity by reallocating their efforts to away from monetary reward programmes and towards cultivating a workplace culture and office environment which promotes productivity.

6.2 Discussion of Research Hypotheses

This research was designed to test two hypotheses. First, firms which value employee well-being and reward positive performance achieve greater productivity and second, employees of firms in highly competitive industries feel more pressure to be highly productive.

The first hypothesis is accepted on the basis that the majority of participants said that their productivity is rewarded and recognised and that this has an impact on their productivity. They also said that company benefits (healthcare, WFH, paid leave), which the literature says increase employee happiness, do impact participants productivity and if those benefits increased productivity would increase too.

Participants agreed that their personal lives and level of happiness directly affected their productivity and they reported that although stress is part of their working life it does not increase productivity.

A more concerning finding was that participants said they sometimes feel stressed at work and they their employer could do more to reduce that stress. However, the majority also said they felt guilty about taking time off of work. This sense of guilt, which stems from a feeling that they are leaving their teammates with more work to do, is further supported by participants responses to how stress could be reduced, with the majority citing an increase in the size of their team being the biggest contributor to reducing stress.

It can be inferred then that if the team size increased and the workload was evenly distributed, participants would take more time off and reduce their stress levels which increases happiness and productivity.

These findings could reignite discussions of a reduced work week from five days to four which some studies have shown to be a success. A experiment with a four day work week in Iceland conducted over the course of four years found that productivity was increased and employees mental health and happiness was improved (Financial Times, 2021). Other countries and firms have expressed an interest in reducing the working hours and research finding like this add credence to those plans.

The second hypothesis cannot be conclusively accepted since there were some conflicting responses from participants. While there was strong correlational findings for 9 of the 11 productivity and competition variables as a matrix, the participants direct answers to questions on the influence of industry competition were mixed. On one hand the majority of participants considered themselves productive, they agreed that their industry is more competitive than most others and they overwhelmingly reported that their productivity was most influenced by the team environment. Participants also agreed overwhelmingly that they were aware of their firms competitors and were motivated to make their firm more successful.

However, just 39.3% of participants said that their productivity is directly affected by the competition in their industry and a large portion (47.4%) disagree that competition had an influence.

This apparent contradiction means that the hypothesis cannot be accepted. Some possible explanations for this contradictory data may be that that participants were confused about the difference between internal competition with their colleagues and industry competition

between firms or that the order of the questions confused participants or the answer to that question could be an outlier.

6.3 Reward, Happiness and Competition

The data collected from participants showed that reward, happiness and competition all play a significant role in increasing productivity. The correlational statistics showed high positive correlation between all three variables but the tests don't show which variable has the greatest impact.

From the data gathered it appears most likely that happiness is the biggest single contributor towards an employee's productivity. This data shows that participants felt their team environment and organisations culture were more significant contributors toward productivity than financial rewards. Two factors which can be defined as intangible, since the nature of what makes them positive or negative influences is difficult to define but they have a psychological impact on participants, driving them to be more productive as a result.

As expected the data does show that reward has a significant impact on productivity and the data shows that the potential of a long term reward such as a promotion is the primary driver of productivity for over 50% of participants. Combined with the findings that benefits also contributed significantly towards productivity this validates the investment in reward based programs like pay for performance which are found at most MNCs and beyond.

Competition can be considered the least significant influence of the three, although still significant overall. Participants in this sample did not feel that industry competition influenced their productivity although they did have an awareness of their firms competitors and felt motivated to make their firm more successful than competitors, which although somewhat contradictory, contributes toward competition being considered the least impactful on productivity.

Chapter 7: Conclusion

The research found strong correlational links between the dependant and independent variables that were tested. Although only one of the two research hypotheses can be accepted there is sufficient evidence to say that there is a relationship between all three independent variables and the dependant variable.

7.1 Limitations

The sample size of 112 total surveys cannot be considered representative of the MNC population at large and the participants in this survey likely representative of a smaller number of MNC industries due to the sampling technique.

Given the subjective nature of the research topic it could be argued that closed ended surveys were an inferior method of data collection compared to interviews where participants could have express their views unhindered. This approach could have highlighted additional productivity drivers which were not captured in the surveys or provide valuable insight on the established drivers which would improve the quality of the analysis and findings.

Additionally, the data on the age range of participants and their total work experience suggests that the majority of participants were under 35. Although the insights gathered from the data are valuable and a large portion of the entire Irish MNC workforce is under 35, the findings cannot be considered representative of the entire MNC demographic.

7.2 Further Research

This research highlighted the influence of the manager relationship on productivity. Further research could identify the characteristics of a positive managerial influence which firms could use to inform their manager training plans.

Participants said the pursuit of a promotion increases their productivity, that the nature of work is the most important consideration when they're looking for in a new job and that the team environment was their primary productivity driver. Additional research on the expected benefits a promotion could identify what employees value besides a salary increases. If there are expected benefits of a promotion beyond salary, managers can incorporate these benefits

into employees day to day work. This may include greater opportunities to lead projects or design improvements which the firm currently assign to higher level employees but could be re-assigned to include lower level employees in the process.

7.3 Recommendations

The research showed that firms should prioritise increasing employee happiness in order to maximise productivity. This can be done by reducing workloads, creating a positive culture and improving the physical environment.

The literature showed that the office environment played a crucial role in supporting high performance, regardless of the task (Rasheed, Khoshbakht and Baird, 2021). This is supported by the independent research where 86.7% said that the environment directly impacted their productivity. MNCs can use these findings to invest in supporting employees who are working from home and those who have returned to offices.

Continuously adapting the office environment to the changing needs of the workforce is crucial to supporting productivity (Öhrn et al., 2021). The way people like to work is always changing and the environment should serve as a tool to support them but too often offices are allowed to stagnate (Elsbach and Bechky, 2007). Whether working from home or at the office MNCs should be leaders in the space by providing the physical, mental and financial support required to maximise the productivity of employee's.

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Appendix

Appendix 1: Survey

This survey is anonymous and no personally identifiable information on the participants will be recorded. This survey will be used to support my Master’s dissertation which discusses the drivers of employee productivity in Ireland.

	Question	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
1	What is your gender?	1 - Male	2 - Female				
2	What is your age range?	1 - 18-30	2 - 31-50	3 - 50 or above			
3	What is your highest level of education?	1- Leaving Cert	2 - Higher Certificate or Diploma	3 - Undergraduate Degree	4 - Postgraduate Degree		
4	How many years work experience do you have?	1 - Less than 5 years	2 - 6 to 10 years	3 - 11-20 years	4 - 21 years or more		
5	Which of the following best describes the type of work you do?	1 - Engineering	2 - Finance	3 - Sales	4 - Administration	5 - Operations	
6	Have you worked for a multinational company in Ireland?	1 - Yes	2 - No				
7	Have you also worked for a domestic company in Ireland?	1 - Yes	2 - No				
8	When I look at a role the most important thing to me is	1 - Nature of work	2 - Comp	3 - Culture	4 - Career	5 - Location	6 - Work life balance
9	I consider myself to be a productive employee	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
10	High productivity is expected at my company	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
11	High productivity is rewarded and/or recognised in my company	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
12	When my productivity is rewarded and/or recognised I am	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	

	encouraged to continue being productive						
13	My productivity is tracked and my manager is aware of my contribution	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
14	If my productivity decreased my manager would speak to me about it	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
15	My relationship with my manager affects my productivity	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
16	My productivity is most influence by	1 - Financial Reward (spot bonus)	2 - Compensation (Salary)	3 - Benefits	4 - Culture	5 - Recognition (Public Acknowledgement)	6 - Team Environment
17	Working for a multinational company is more challenging than working for a domestic company	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
18	The success of my company is important to me	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
19	I'm aware of my companies competitors and I am motivated to make my company more successful than competitors	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
20	The industry I work in is more competitive than most other industries	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
21	The level of competition between companies in my industry influences my productivity	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
22	Company benefits increase my productivity at work. i.e. healthcare, working from home, annual leave days	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	

23	If my compensation & benefits increased my productivity would also increase	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
24	High productivity will result in a promotion at my company	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
25	A promotion is the primary driver for my productivity	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
26	My productivity is affected by my physical environment	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
27	I am more productive working from home than I am at my office	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
28	My personal life affects my productivity at work	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
29	I am more productive when I am happy	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
30	I sometimes feel stressed at work	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
31	The stress from my work makes me more productive	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
32	My company could do more to reduce my stress at work	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	
33	My stress would be reduced most by	1 - Reduce Workload	2 - Expanding team	3 - Improve Comms	4 - Time off	5 - Breaks	
34	I sometimes feel guilty about taking time off due to how busy my team/company is	1 - Strongly disagree	2 - Somewhat disagree	3 - Unsure	4 - Somewhat agree	5 - Strongly agree	

Appendix 2: Cronbach's Alpha

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
Productive	88.25	89.722	.261	.401
Exp_Productivity	88.05	85.110	.591	.607
Reward_Productivity	88.56	85.239	.445	.617
Reward_Encouragement	88.09	88.272	.415	.450
Productivity_Tracked	88.65	85.053	.460	.527
Productivity_Deceased	88.64	89.747	.259	.432
Productivity_Relationship	88.39	87.829	.313	.374
Multi_Challenging	89.25	88.077	.283	.319
Company_Success	88.27	87.937	.370	.550
Company_Competitors	88.87	83.421	.509	.554
Competitive_Industry	88.62	88.649	.254	.283
Competition_Productivity	89.70	83.145	.435	.456
Benefits_Productivity	88.48	84.327	.552	.544
Increased_Benefits	88.91	86.216	.384	.360
Promotion_Productivity	89.02	86.598	.345	.475
Promo_Priority	89.19	86.489	.271	.353
Productivity_Environment	88.27	92.460	.138	.411
Productivity_WFH	89.50	86.589	.259	.501
Personallife_Productivity	88.51	93.486	.026	.382
Productivity_Happiness	87.86	93.410	.133	.314
Stressed	88.23	91.731	.208	.443
Stress_Productivity	89.92	93.012	.041	.250
Company_Lower_Stress	88.81	93.068	.040	.644
Guilt_Time_Off	89.16	88.339	.173	.316

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.754	.762	24