

**Title:**

On the Uptake of Flexible Working Arrangements and the Association with Human Resource  
and Organisational Performance Outcomes

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## **Title**

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## **Abstract**

The aim of this study was to identify novel clusters of organisations using similar patterns of flexible working arrangements (FWAs) from data provided by 1,064 organisations in seven EU countries, and to relate cluster membership to demographic variables and human resource (HR) and organisational performance outcomes. Using Ward's hierarchical clustering algorithm we identified four distinct clusters of FWAs, each differentiated by key FWAs. Cluster 1 represents organisations engaging in a high level of annual hours contracts; Cluster 2 represents more traditional work practices; Cluster 3 represents organisations mainly offering shift-work and Cluster 4 represents organisations with a high uptake. The demographic profile of organisations recorded across each of the four clusters was significantly different. Finally, significant associations were found between cluster membership and employee turnover ( $p < 0.001$ ), absenteeism ( $p < 0.001$ ) and productivity ( $p < 0.015$ ). The implications of these results are discussed and directions for future research are proposed.

**Keywords:** performance; HRM; employment contract; productivity; flexible work arrangements; absenteeism; employee turnover; CRANET

## **Introduction**

The increasing proliferation of flexible work and more varied work schedules has become a global employment phenomenon, with alternative work schedules becoming an increasingly popular way for organisations to vary the time and place of work (Cowan & Hoffman, 2007; Lia, Rousseau, & Chang, 2009; Stavrou, Parry, & Anderson, 2015). These changes to work schedules are in response to the changing needs of both workforce and marketplace, allowing both employees and employers the opportunity to adjust the where, when and how of work (Lia et al., 2009; Stavrou et al., 2015). Literature to date has focused on employee and employer related reasons for using different forms of FWAs, as well as the effects of different FWAs on various outcome measures such as attrition, job satisfaction, burnout, employee retention and absenteeism in addition to a range of organisational performance measures (Dalton & Mesch, 1990; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000; Stavrou, 2005; Valverde, Tregaskis, & Brewster 2000). Despite these research efforts, empirical studies examining FWAs focus on individual FWAs and have largely ignored that fact the organisations can often use a range of FWAs simultaneously (Stavrou, 2005). To our reading, there are four main aspects ignored in the extant literature which our study aims to address, and in doing provide a more encompassing view to the study of FWAs in European organisations. Firstly, while the profile of organisations offering individual FWAs is well documented in the literature (Bardoel, Tharenou, & Moss, 1998; Goodstein, 1994; Ingram & Simons, 1995; Whitehouse & Zetlin, 1999) little is known about the profile of organisations offering complimentary FWAs (to reflect the approach taken in our empirical investigation we will use the term *clusters* when referring to multiple FWAs offered simultaneously by organisations). The context in which FWAs are more or less conducive has been largely ignored in the literature and extant research (Stavrou, 2005), meaning the extent to which FWA clusters may be universally applied or are more context specific remains largely unexplored (Resnick, 1997; Solomon, 1999; Stavrou & Kilaniotis, 2010; Stavrou, Spiliotis, & Charalambous, 2010). By exploring the profile of

organisations offering different clusters of FWAs we will advance our understanding of the importance of context when offering multiple FWAs, enabling us to determine variation and patterns of usage. Secondly, little is known about the formation of FWA clusters. As the majority of studies tend to focus on individual FWAs (for example O'Reilly and Fagan, 1998; Dalton and Mesch, 1990; Harrick *et al.*, 1986; Bailey and Kurland, 2002) studies have failed to take into consideration how organisations may use various combinations of FWAs (Chung & Tijdens, 2012). By exploring the formation of the FWA clusters we can build a deeper understating of how best to cluster FWAs to ensure maximum return for the organisation. Thirdly, the relationship between FWA clusters and organisational outcomes remains largely under explored. Following a systematic review of literature on FWAs de Menezes and Kelliher (2011) concluded that there was a lack of clear evidence in support of a universal business case for the implementation of FWAs. In line with other scholars who propose that the appropriate unit of analysis for studying the link between different HR practices and various outcomes is 'bundles'<sup>1</sup> of practices, rather than individual practices (MacDuffie, 1995; Richbell, Brookes, Brewster, & Wood, 2011; Stavrou et al., 2015; Stavrou, 2005), we generate clusters of FWAs, using a cluster analysis algorithm, based on organisations using multiple FWA arrangements. Perry-Smith and Blum (2000) advise that using bundles allows researchers to capture “. . . a broader, higher-level effect than that which can be captured by focusing on individual policies and is particularly appropriate for investigating organisation-level effects”. Finally, from a methodological perspective, as previously highlighted the majority of studies tend to focus on single FWAs (Bailey & Kurland, 2002; Callentine, 1995; Dalton & Mesch, 1990; Golembiewski & Proehl, 1978; Harrick, Vanek, & Michlitsch, 1986; O'Reilly & Fagan, 1998; Orpen, 1981; Thomas & Ganster, 1995), at the employee level, (Hammer & Barbera, 1997; Kossek, Colquitt, & Noe, 2001; Tietze, Cohen, & Musson, 2003), in single countries (Battisti

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<sup>1</sup> Stavrou (2005) was the first study to examine multiple arrangements at once, referring to them as “bundles”. As we use cluster analysis in this study we use the term “clusters” to reflect multiple arrangements

& Vallanti, 2013; Bentolila & Dolada, 1994; Comfort, Johnson, & Wallace, 2003; Mihail, 2003) and within specific industries (Cohen & Single, 2001; Leonard, 1998; MacDuffie, 1995), with a lack of systematic exploration of the relationship between clusters of FWAs and organisational outcomes across countries (Lee & DeVoe, 2012; Stavrou, 2005; Wood, 1999; Youndt, Snell, Dean, & Lepak, 1996). While a number of studies have examined FWAs across multiple countries (Gunnigle, Turner, & Morley, 1998; Stavrou, 2005; Valverde et al., 2000), with a small number of studies examining several arrangements at once (Kelliher & Anderson, 2008; Richbell et al., 2011; Stavrou et al., 2015; Stavrou, 2005; Valverde et al., 2000), they do not examine the issues addressed in this paper. The lack of studies looking across organisations and countries is most likely due to the lack of appropriate data sources comparable across different countries i.e. data covering the wide range of issues on FWAs collected at the organisational level. We build upon previous studies, overcoming these methodological problems, by using data from a single dataset. A unique feature of the CRANET dataset we employ in this study is the use of a single methodology across all countries, yielding directly comparable data across countries.

Taking data from 1,064 organisations across seven EU countries we use a cluster analysis algorithm to group organisations together based on FWAs offered. The benefit of using cluster analysis is that it provides insights into the heterogeneity and characteristics of organisations offering various FWAs. This statistical technique aims to group respondents so that respondents in the same group or cluster are more similar to each other (based on the uptake of each FWA in each organisation) than they are to other clusters. Doing so allows us to identify the profile of organisations in each cluster, enabling us to determine whether or not these clusters of FWAs are universally adopted or, if indeed they are only adopted in particular contexts. The cluster analysis also identifies the various FWAs in each cluster. As we do not

treat the FWAs as binary variables we can also determine the importance of the uptake of each FWAs in each cluster. Finally, we test the association between each FWA cluster and HR (employee turnover and absenteeism) and organisational performance (productivity and profitability) outcomes. This is the first study to our knowledge that uses such a large number of organisations, with a large array of FWAs and contextual variables simultaneously to study the profile of organisations offering clusters of FWAs and explore their association with organisational outcomes. This study enhances the on-going debate related to the organisational benefits linked to the use of FWA clusters, providing both scholars and practitioners a deeper understanding of the profile of organisations offering FWA clusters, the formation of FWA and whether and how each of the FWAs cluster are associated with organisational outcomes.

The remainder of this paper is structured as follows; in the next section we develop a series of research questions based on the extant literature to date. Following on from this we introduce the data collection method and our data handling techniques. We then introduce the results and discuss these in the context of the enfolding literature. We outline the implications of our work, its limitations and possible directions for future lines of enquiry.

### **Literature Background & Development of the Research Questions**

Workplace flexibility can be defined as “alternative work options that allow work to be accomplished outside of the traditional temporal and/or spatial boundaries of a standard workday” (Rau, 2003), with FWAs having the potential to contribute towards organisational competitiveness and employee work-life balance (Stavrou et al., 2010). To date numerous terms have been used interchangeably within the literature to describe workplace flexibility, for example, flexibility in the work environment (Hill et al. 2008), flexible schedules (Kossek, Barber, & Winters, 1999) flexible employment (Abraham, 1990), atypical employment (Mihail,

2003) non-standard work arrangements or contingent employment (Polivka & Nardone, 1989) and flexible work arrangements (FWAs) (Cohen & Single, 2001; Zeytinoglu, 1999); hereafter we will use the term FWAs. Unlike traditional office hours, usually thought of as a seven-to-eight hour work day, five days per week at the place of work (Stavrou et al., 2015), FWAs consist of working patterns involving modifications to the regular working week, working at night and weekends, in addition to work schedules where the starting and finishing times are at different hours of the day, week or regular reference period (ILO, 2011). These FWAs include both permanent and non-permanent contracts, which can be either short-term or long-term in duration. To date a wide range of FWAs have been cited within the literature including; weekend work, shift-work, overtime, annual hours contract, part-time work, job sharing, flexi-time, temporary/casual work, fixed-term contracts, homebased work, teleworking and compressed working weeks (Brewster, 1997; Meyer, 1997; Stavrou et al., 2010; Stavrou, 2005).

The concept of FWAs emerged in the 1970s with employers allowing employees with caring responsibilities to come for work later in the mornings, in order to facilitate school drop offs (Myers, 1999). In the intervening years there have been profound changes to the world of work and the workforce, in addition to changes in the marketplace. Changes to the global economy, such as sluggish economic growth which triggered high unemployment (particularly in Europe) and changes to labour laws and government regulations (Kalleberg, 2000) have transformed the employment relationship globally. This relationship has changed from one of full-time, full-life, full employment (male) and full welfare entitlements (Barbieri, 2009) to one with increasing FWAs, more frequent changes between jobs and an increase in the number of female and older workers (Kalleberg, 2003). Gareis and Korte (2002) summaries these changes as a shift from a “regular employment relationship” characterised by full-time permanent jobs, with an even and stable distribution of working hours over a fixed number of days, towards the most

recent job paradigm which is characterised by greater flexibility of labour deployment, contributing to greater spatial, contractual and temporary flexibility. This shift has led to a more flexible workforce, allowing for labour to be allocated when and where needed. These changes have led to a two pronged approach when looking at labour flexibility i.e. flexibility that is introduced to meet the needs of employers compared to flexibility that is introduced to meet the needs of employees. However, although FWAs can be divided into those that cater for the needs of workers versus those for the company, employers ultimately only implement FWAs when the perceived benefits outweigh the costs of introducing such practices (Plantenga & Remery, 2005). From an employee perspective, FWAs may be seen as a means of achieving balance between the demands of the job and those off the job. This is often coupled with higher job satisfaction and lower stress and burnout, resulting in improved organisational outcomes (Tregaskis, Brewster, Mayne, & Hegewisch, 1998). As a result, employees benefiting from FWAs may put in extra effort as an additional form of payback, as the ability to take advantage of FWAs may engender a reaction in employees which results in them expending greater effort. Within the FWA literature social exchange theory has been used to explain behaviours such as increased effort, which may be returned to an employer as a benefit in exchange for FWAs (Kelliher & Anderson, 2008; Stavrou, 2005).

While a body of knowledge examines individual practices, there have been few attempts to investigate synergies generated from the use of multiple FWAs. Stavrou (2005) was the first to this and explored their relationship with a number of organisational outcomes. Stavrou (2005) highlighted that even though different FWAs had been included in strategic HR models (Brewster, 1997; Huselid, 1995), no attempt had been made to examine multiple arrangements at once. The importance of investigating multiple arrangements at once has been highlighted by researchers to date. For example, MacDuffie (1995) argues the most appropriate unit of



analysis for studying the link between different HR practices and various outcomes is interrelated and internally consistent ‘bundles’ of practices, rather than individual practices, a view which has been echoed by a number of other researchers in this area (Hogarth, Hasluck, Pierre, Winterbotham, & Vivian, 2001; MacDuffie, 1995; Perry-Smith & Blum, 2000; Stavrou, 2005). Using bundles of FWAs, Stavrou (2005) concluded that non-standard work patterns were found to be related to decreased turnover in the private sector, while working away from the office was related to improved performance and reduced absenteeism. Furthermore, Stavrou (2005) reported non-standard work hours and work outsourced in the public sector were positively related to turnover, suggesting these types of FWAs were possibly not being used as true flexibility arrangements. Apart from the evidence presented by Stavrou (2005) little has been done to advance our knowledge in this area. Although Stavrou identified four distinct bundles we do not know whether or not each FWA contributed equally to the formation of the bundles as FWAs were treated as binary variables (1 = offered and 0 = not offered). To advance our knowledge in this area we assess the uptake of each individual FWA and use this in our analysis. In doing so we can draw conclusions about the exact formation of each cluster, determining whether or not all FWAs contribute equally to the formation of the cluster. Therefore we put forward the following research questions:

*RQ1: Do distinct clusters of FWAs exist across the 1,064 organisations included in this study?*

*RQ2: Do all FWAs contribute equally to the formation of each FWA cluster?*

Furthermore, while Stavrou’s study advanced our knowledge in this under represented area of research, identifying four bundles of FWAs and testing their relationship with organisational competitiveness, in addition to moderating for organisational sector, industry sector, organisational size and women-supportiveness, these moderators only give insight into the factors impacting the relationship between FWA bundles and organisational competitiveness.

To date little is known about the profile of organisations offering these FWAs, a concern echoed by Resnick (1997), Stavrou and Kilaniotis (2010), Solomon (1999), Stavrou *et al.*, (2010), meaning the importance of context when grouping FWAs is unknown. The next section considers a number of contextual factors which may impact on the decision to offer different combinations of FWAs.

### **FWAS and Context**

A number of studies highlight the importance of contextual factors when studying their relationship between FWAs and organisational outcomes such as: organisational size, proportion of females employed by the organisation, trade union representation and recognition of collective bargaining, the profile of the host country, industry sector and markets served (Cooper & Kurland, 2002; Perry-Smith & Blum, 2000; Stavrou *et al.*, 2010). Organisational size may influence management's decision to adopt FWAs, because it is harder for a small organisation to readily and easily respond to the increased cost of FWAs (Myers, 1999; Scheibl & Dex, 1998). Many researchers argue that because of their size and visibility, larger organisations are under more pressure to be more socially responsible than smaller organisations (Myers, 1999; Scheibl & Dex, 1998). As such, larger organisations are more likely to offer a wider range of FWAs as they are more likely to experience problems arising from employees' inability to manage the work-family interface (Bardoel *et al.*, 1998; Glass & Fujimoto, 1995; Goodstein, 1994; Ingram & Simons, 1995; Kossek, Dass, & DeMarr, 1994; Osterman, 1995). In addition to the size of the workforce Bardoel *et al.*, (1996) suggest that the greater the number of female employees in the organisation, the greater the need for family friendly work practices. Balancing work and family is inherently, although not exclusively, a gender issue. Although the nature of men's and women's contributions to households has changed in recent decades (Lewis & Campbell, 2007), the majority of family and caring duties

are fulfilled by women (Borrill & Kidd, 1994; Drew & Humbert, 2012; Greenhaus & Parasuraman, 1999; Hanlon, 2012; Konrad & Mangel, 2000; Ralph, 2014; Shelton & John, 1996). As a result female employees may demand more FWAs within the workplace making it advantageous and/or necessary for an organisation to provide them.

Studies have shown that trade unions may play a key role in developing FWA policies and practices (Ferner, Almond, & Colling, 2005; Miller & Mulvey, 1992; Stavrou & Kilaniotis, 2010). For example, Miller and Mulvey (1992) note that union presence can be linked to improved fringe benefits, including FWAs. Furthermore, a study carried out by Glass and Fujimoto (1995) concluded that trade union status is one of the strongest predictors of family-friendly benefits, with Bardoel *et al.*, (1999) reporting that trade unions are positively associated with leave options, however, they did not find any association between trade union representation and the provision of other FWAs such as work options or child care.

FWAs may also be more beneficial in some countries than others as the institutional context may predetermine, facilitate or obstruct their use (Stavrou & Kilaniotis, 2010; Whitley, 1999). Organisations operating in lightly regulated contexts, such as liberal market economies (LMEs) are freer to redeploy people as and when managers choose, even if it is not in accordance with employees' preferences. Such economies are characterized by lower levels of regulations, lower trade union involvement, greater levels of decentralized wage bargaining and modest unemployment benefits (Hall & Soskice, 2001). Conversely, the use of FWAs may be more attractive in regulated contexts, such as coordinated market economies (CMEs), where flexible hours may give organisations more scope to adjust the relative workforce size without having to make premature hiring or redundancies (Hall & Soskice, 2001). Finally, Mayne *et al.*, (1996)

report that organisations offering a high level of flexibility are more global than local and are concentrated in certain industries such as services rather than production oriented.

Instead of developing hypotheses to determine the importance of contextual factors as antecedents for FWAs, we explore the organisational characteristics that are associated with the provision of the different FWA clusters within our sample to determine whether or not these clusters are determined by distinct groups of organisations or if indeed they are universally applied. In doing a greater insight into the homogeneity or heterogeneity of organisations offering various FWA clusters is provided. In this study we make no assumptions about the profile of organisations prior to analysis. Therefore we put forward the following research question:

*RQ3: Do distinct clusters of organisations exist based on FWAs offered among this sample?*

Once context is identified, the relationship between clusters of FWAs and HR outcomes and organisational performance will be examined.

## **FWAs and Organisational Outcomes**

### **HR Outcomes**

FWAs can create positive outcomes from a HR perspective by helping organisations retain existing employees, attract potential employees and reduce costs associated with recruitment and absenteeism. Organisations may choose to offer FWAs as the demands of the two domains of work and home may manifest itself in the form of increased employee turnover and absenteeism (Fernandez, 1986; Schultz, 1985). Gurkov *et al.*, (2012) highlight that organisations looking to attract and retain top talent should consider how to facilitate work-

family enrichment by offering policies that permit greater workplace flexibility, which may indicate an overall supportive work environment.

### ***Employee Turnover***

Raghuram *et al.*, (2004) note how organisations around the world have increasingly used FWAs to attract a desirable labour pool and reduce employee turnover. Grover and Crooker (1995) found that individuals with access to FWAs reported significantly lower turnover intentions than employees without access to these policies. In addition, this study indicated that companies offering FWAs were successful at retaining employees, even if they did not use the policies themselves. This may be explained by Rhoades and Eisenberger (2002) who note that organisations offering FWAs provide a signal to employees that they care about their employees' well-being, promoting greater psychological commitment and lower tendency to quit. Perceived organisational support in exchange theory may be relevant in explaining the relationship between FWAs and employee turnover (Stavrou, 2005). Based on the principle of social exchange theory we believe employees with access to FWAs will feel as though they are fortunate to have such flexibility, valuing the benefits generated from such flexibility and as a result are less likely to leave the organisation due to greater perceptions of employer support for family.

### ***Absenteeism***

Studies to date have suggested that companies using FWAs will benefit from substantial reductions in absenteeism (Baltes, Briggs, Huff, Wright, & Neuman, 1999; Dalton & Mesch, 1990) . While numerous studies have shown that unscheduled absences occur because employees need to deal with sickness or other family issues (Dalton & Mesch, 1990; Scheibl & Dex, 1998), further studies have demonstrated that the availability of individual FWAs have

been successful in reducing absenteeism (Baltes et al., 1999; Dalton & Mesch, 1990; Golembiewski, 1974; Krausz & Freibach, 1983). Raghuram *et al.*, (2004) note how organisations around the world have increasingly used FWAs to reduce labour costs, increase employee retention and attract a desirable human resource pool, as well as reducing absenteeism (Meyer, 1997). Furthermore, Woods and de Menezes (2010) found that absenteeism is less common in environments where managers are supportive of employees' needs for flexibility and that organisational commitment is negatively associated with absenteeism.

Overall, it can be concluded that in order for employees to balance the demands of work and home systematically, employees need their employers to adapt greater flexibility in the workplace, for example, through the use of FWAs, to reduce the interference of non work responsibilities on work responsibilities. This notion is consistent with perceived organisational support in social exchange theory, according to which employees seek a balance in their exchange relationship with organisations by engaging in behaviours that support the organisations goals in return for support and care to be shown towards individual goals (Stavrou, 2005; Wayne, Shore, & Liden, 1997). As such the benefits generated from FWAs create a feeling of obligation towards the employer, and as a result employees will be less likely to misuse sick days to deal with non-work commitments, resulting in lower absenteeism.

### **Organisational Performance**

Turning to organisational performance, despite the fact that organisational performance is one of the most important constructs in management research (Richard, Devinney, Yip, & Johnson, 2009), the definition of organisational performance is surprisingly muddled with few studies using consistent definitions (Kirby, 2004). Moreover, no uniform measure of organisational performance exists (Kouzman, Loffler, Klages, & Kakabadse, 1999). Further difficulties

arising from performance measures used to date, and in particular when gathering data across countries include: data completeness, quality of the data, availability of data and the difficulty in obtaining directly comparable measures (Richard et al., 2009). To overcome these difficulties we use perceptual measures of performance in this study, this is in line with previous studies carried out by Delaney & Huseid (1996), Jap (2001), Nikandrou *et al.*, (2008), Perry-Smith and Blum (2000), Smith & Barclay (1997) and Stavrou (2005). We believe this to be an appropriate approach to take as past studies report a high degree of correlation between objective and perceptual measures of performance (Delaney & Huseid, 1996; Perry-Smith & Blum, 2000; Wall et al., 2004) .

### ***Productivity***

Boyer (1988, p. 230) claims that ‘flexibility and productivity go hand in hand.’ Studies have indicated that a good balance between work and life have boosted morale and enhanced productivity (Ezra, 1996; Konrad & Mangel, 2000; Perry-Smith & Blum, 2000; Scandura, 1998; Scheibl & Dex, 1998). A persistent pattern of work/life conflict may run the risk of stifling worker productivity and economic competitiveness (Dex, 1999). Against the backdrop of increasing competition in the marketplace, diminishing operating profits, business closures, redundancies and high degrees of uncertainty, organisations need to be able to adjust to changes in demands and changes in their environment in order to succeed (Albizu, 1997; Valverde et al., 2000). These demands have led to a greater need for organisational flexibility in terms of production, financial resources, the design and organisation of work and labour flexibility.

The relationship between FWAs and productivity has received considerable attention in the literature since the 1970’s, with varying results. From an organisational perspective there is evidence that FWAs can increase productivity (Bélanger, 1999; Konrad & Mangel, 2000). For

example, in early research efforts Schein *et al.*, (1977) found that the introduction of flexible working hours had no adverse impact on productivity, with Golembiewski *et al.*, (1975) reporting negligible effects between flexi-time and performance and productivity. In a meta-analysis conducted by Baltes *et al.*, (1999) it was reported that flexible work schedules favourably impacted productivity. Similarly, Eaton (2003) concluded the presence of formal or informal work-family practices was significantly associated with higher productivity, although the relationship is stronger when these practices are perceived as useable. Finally, Barker (1995) argues that when employees are given discretion over when and where work is completed, they will generally work during their most productive hours, allowing employees to deal with non work demands during the work day. Therefore based on the principle of social exchange theory we argue that employees will appreciate the flexibility generated from the availability of FWA clusters and are therefore most likely to repay the organisation in the form of increased productivity.

### ***Profitability***

Den Hartog *et al.*, (2004) explain that when modelling the relationship between HRM practices, such as FWAs, and organisational performance, HRM practices are typically expected to increase employees' organisational commitment and motivation, which in turn affects their performance and ultimately organisational performance (Becker, Huselid, Pickus, & Spratt, 1997; Guest, 1997; Paauwe & Boselie, 2005). Within these models HRM practices are assumed to result in HRM outcomes such as employee commitment and workforce flexibility. Such HRM outcomes then result in employee behaviours such as efforts and cooperation. These behavioural outcomes impact performance outcomes in areas such as productivity and innovation. The final step in the causal chain is formed by financial outcomes such as profits. In line with social exchange theory these models would imply a positive relationship between the value generated from HRM practices, such as FWAs, and organisational profitability.



Studies to date have recorded a positive relationship between FWAs and organisational profitability (Bélanger, 1999; Konrad & Mangel, 2000). For example, Baltes *et al.*, (1999) and Valverde *et al.*, (2000) found that labour flexibility had a positive relationship with organisational profitability, placing the organisation in a better position within the marketplace. Overall, FWAs can increase organisations revenues through attracting higher quality candidates and increasing the marginal productivity of existing employees (Drago & Golden, 2006; Konrad & Mangel, 2000). Based on the principle of social exchange theory we argue that the availability of FWAs may engender a reaction in employees, resulting in them expending greater effort in return for employees being able to manage work and family responsibilities.

Overall, therefore, we argue that social exchange theory provides a theoretical justification for expecting a work-life benefit such as FWAs, to be positively reciprocated by employees in the form of positive attitudes and behaviours. When employees perceive that their organisation is helping them manage their work and family roles, a feeling of obligation towards the employer is generated and the norm of reciprocity compels the return of favourable treatment, often in the form of favourable attitudes such as more positive feelings about the job and the organisation (Aryee, Srinivas, & Tan, 2005; Wayne, Randel, & Stevens, 2006). This in turn may be reciprocated in the form of reduced employee turnover intentions and reduced absenteeism, in addition to increased levels of productivity and profitability. In this context workers feel obligated to display extra effort in return for the extra benefit provided by the organisation. However, it must be recognized that not all FWAs are voluntary (Tomlinson, 2007) and as such do not necessarily generate positive benefits for employees. For example, certain FWAs may be implemented as part of a policy to reduce the number of full-time employees and create a flexible workforce to deal with the demands of the

organisation. In this context FWAs do not necessarily generate benefits for employees, leaving them feeling less compelled to return extra effort to the organisation. Therefore, we seek to determine whether or not the association with organisational outcomes differs across FWA clusters.

*RQ4: Does the association with HR outcomes and organisational performance differ across clusters?*

## **Method**

We use data from the 2008-10 round of the CRANET survey in this study. The CRANET survey is the largest and most representative independent survey of HRM policies and practices in the world (Parry, Stavrou-Costea, & Morley, 2011). Since its inception in 1989, universities and business schools from over 40 countries have joined the network. Data are collected every four years by a scholar within each member country. The unit of analysis of the survey is organizational, with the highest ranking officer in charge of HRM completing the survey (Stavrou & Kilaniotis, 2010). The sample of organisations in each country is identified using lists provided by national federations or similar. When collecting the data, researchers endeavour to ensure that all sectors of the economy are represented in the data. Doing so ensures that the CRANET database is demonstrative of the countries industry structures (Stavrou, 2005) (For further details of the survey and methodology see Brewster *et al.*, 2004; Steinmetz *et al.*, 2011). For this study, data from 1,064 private sector organizations in seven EU countries (France, Germany, Hungary, Ireland, Italy, Sweden and the UK) were analysed with the aim of identifying distinct clusters of organisations based on FWAs and examining associations between cluster membership and HR outcomes (employee turnover and absenteeism) and organizational performance (productivity and profitability) outcomes. The countries included in this study represent varied labour market structures, national provisions

pertaining to maternity, paternity and parental leave, legislative structures, economic systems and industrial sectors.

### **Avoiding Common Method Bias**

Before analyzing the data a number of steps were taken to minimize the effects of common method bias. Firstly, the CRANET survey guarantees anonymity to all respondents; doing so reduces the respondents urge to provide socially desirable, expected or accommodating answers (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In addition, independent and dependent variables used in this study were placed in different sections of the survey, decreasing the likelihood that respondents would artificially answer each question in the same way (Podsakoff & Organ, 1986). Huselid and Becker (2000) explain that the validity of single-source measures depends on the size of organizations in the sample, the expertise of the source responding to the questions and the clarity of items comprising the survey. The CRANET survey meets these requirements: the median number of employees in the organizations included in this study was 422 (min=200, max=1100); the respondents were members of the corporate HR team; and the International CRANET team took great care in the methods and procedures used to make the survey specific and clear, leaving little room for ambiguity.

### **Measures**

#### ***Flexible Working Arrangements***

Organisations were asked to indicate the approximate proportion of employees on 12 separate FWAs; weekend work, shift-work, overtime, annual hours contracts, part-time working, job share, flexi-time, temporary/casual work, fixed term contracts, home based working, teleworking and compressed working week. Responses were coded on an ordinal scale where

0 = not used, 1 = 5% or less, 2 = 6-10%, 3 = 11-20%, 4 = 21-50% and 5 = more than 50% of employees.

### ***Organisational Demographic Variables***

*Country-* Responses from the following seven countries were included in the sample: France (14%), Germany (32%), Hungary (9%), Ireland (8%), Italy (13%), Sweden (15%) and the United Kingdom (9%).

*Industry Sector-* This variable was originally a categorical variable with 16 industrial sectors taken from NACE (National Générale des Activités Economiques dans les Communautés Européennes). In order to reduce the number of categories, organisations were allocated to three industrial sectors: manufacturing (44%), services (44%) and other (12%).

*Trade Union Representation-* Organisations were asked what percentage of their organisation were members of trade unions. The ordinal variable was coded as 0 – No representation (22%), 1 – less than 50% representation (54%), 2 – more than 50% representation (24%).

*Market Conditions-* Organisations were asked if the market currently being served by the organisation was (1) declining (34%), (2) same (29%) or (3) growing (37%).

*Market-* Respondents were asked to describe the main market(s) for their organisation's products or services; (1) local, (2) regional, (3) national, (4) continent wide and (5) world-wide). This variable was recoded allocating codes 1, 2, 3 to Group 1 – National markets, and codes 4, 5 to Group 2 – International markets. 42% of organisations served national markets, while 58% of organisations served international markets.

*Size of the organisation-* The size of the organisation was measured by the total number of people on the payroll.

*Percentage of female employees-* This variable measured the overall percentage of female employees on the payroll.

*Percentage of Employees Aged Less Than 45 Years-* This variable measured the percentage of the organization's employees that are aged less than 45 years old.

### **Human Resource Outcomes**

*Employee turnover-* This is a continuous variable indicated the annual employee turnover within the organisation, ie the percentage of employees who left the organisation in the past year, either voluntary or involuntary.

*Absenteeism-* This is a continuous variable indicated the average number of days employees are absent per year within the organisation.

### **Organisational Performance**

The CRANET survey measured organizational performance compared to other organizations- Respondents were asked: Compared to other organizations, how would you rate the performance of your organization in relation to the following: level of productivity and level of profitability. The response options were as follows: (1) Poor or at the low end of the industry, (2) below average, (3) average or equal to the competition, (4) better than average and (5) superior. Productivity and profitability were recoded as 1 = average or below average and 2 = better than average or superior.

### **Statistical Analysis**

Descriptive statistics were computed and are presented as mean (SD), median (25<sup>th</sup> percentile, 75<sup>th</sup> percentile) or count (percentage) as appropriate (IBM SPSS Statistics, version 20). All continuous variables were assessed for normality using formal tests of normality and through visual inspection of histograms.

Hierarchical cluster analysis was carried out to identify groups of organisations with similar FWA patterns. Ward's clustering algorithm was applied to the twelve FWA variables and the Squared Euclidean distance was the measure of distance. The optimum number of clusters was identified using visual inspection of the dendrogram and rescaled distances in the dendrogram. The final solution was selected based on conceptual interpretation and maximising variability between clusters.

Cluster membership was tested for association with organisational demographics; size of the organisation, percentage of female employees, percentage of employees aged less than 45 years, country, industry sector, trade union representation, markets served and market conditions. Differences between cluster groups were also examined for the outcome variables of interest; employee turnover, absenteeism, productivity and profitability. Statistical analysis used the Chi-square test for categorical data and Kruskal-Wallis or Mann-Whitney non-parametric tests for skewed or ordinal data. A 5% level of significance was used for all statistical tests.

## **Results**

The cluster analysis identified four distinct clusters using the FWA variables at a rescaled Squared Euclidean distance of 10. In Table 1, the FWA ordinal variables are summarised as median (25<sup>th</sup> percentile, 75<sup>th</sup> percentile) for each of the four clusters, and the statistically significant differences between clusters for the FWA variables support the cluster solution. The FWA cluster characteristics define Cluster 1 as having a high uptake of annual hours contracts (>50%), in addition to a medium uptake of shift-work, overtime and flexi-time (11-20%) and a low uptake of weekend work, part-time working, temporary/casual work and fixed term contracts (1-10%); Cluster 2 has more traditional work practises with low uptake of overtime, part-time working, temporary/casual work and fixed term contracts (1-10%); Cluster 3 is

characterised as having a medium uptake of shift-work (21-50%), in addition to a low uptake in weekend work, overtime, part-time working, flexi-time, temporary/casual work and fixed term contracts (1-10%) and Cluster 4 has a high uptake of flexi-time (>50%), in addition to a low level of uptake in (weekend work, overtime, part-time working, temporary/casual work and fixed term contracts (1-10%).

**Table 1: FWA Uptake Variation Across Clusters**

	<b>Cluster 1</b>	<b>Cluster 2</b>	<b>Cluster 3</b>	<b>Cluster 4</b>	<b>p<sup>1</sup></b>	<b>p<sup>2</sup></b>	<b>p<sup>3</sup></b>
	n = 173 (19.2%)	n = 216 (24%)	n = 312 (34.7%)	n = 199 (22.1%)			
Weekend work	1 (0,3)	0 (0,1)	2 (0,4)	1 (0,1)	0.031	<0.001	0.031
Shift work	3 (1,5)	0 (0,1)	4 (3,5)	0 (0,1)	<0.001	0.314	<0.001
Overtime	3 (1,4)	2 (1,3)	2 (1,3)	2 (0,4)	0.090	0.590	0.090
Annual hours contract	5 (4,5)	0 (0,0)	0 (0,0)	0 (0,0)	<0.001	0.016	<0.001
Part-time working	2 (1,3)	1 (1,2)	1 (1,2)	2 (1,3)	0.014	0.054	0.014
Job share	0 (0,1)	0 (0,0)	0 (0,1)	0 (0,1)	0.171	0.767	0.171
Flexi time	3 (0,5)	0 (0,1)	2 (0,4)	5 (5,5)	0.006	<0.001	0.006
Temporary/casual work	1 (1,2)	1 (0,2)	1 (1,2)	1 (0,1)	0.403	0.003	0.403
Fixed term contracts	1 (1,2)	1 (0,2)	1 (0,2)	1 (1,2)	<0.001	0.001	<0.001
Home based work	0 (0,1)	0 (0,0)	0 (0,0)	0 (0,1)	0.057	<0.001	0.057
Teleworking	0 (0,1)	0 (0,0)	0 (0,1)	0 (0,1)	0.030	<0.001	0.030
Compressed working week	0 (0,0)	0 (0,0)	0 (0,0)	0 (0,1)	0.855	0.003	0.855

<sup>1</sup>Difference between all clusters (Chi-square test or Kruskal-Wallis), <sup>2</sup>Difference between Clusters 2 and 4,

<sup>3</sup>Differences between Clusters 1 and 3

Table 1 also gives us a detailed insight into the composition of each cluster, highlighting the uptake of each FWA within each cluster. Looking at the individual FWAs, the uptake of weekend work, shift-work, overtime, annual hours contracts, part-time working, flexi-time, fixed term contracts and teleworking is significantly different across each of the four clusters.

The difference in uptake of job sharing, temporary/casual work, home working and compressed working weeks was not significantly different across the four clusters; however, it is worth noting that the uptake of these individual FWAs was low across all clusters. In addition to comparing the results across all clusters, we compare the results of Cluster 2 to Cluster 4 and the results of Cluster 1 to Cluster 3. Both Clusters 2 and 4 represent more traditional working hours, with a median score of 2 or less for all FWAs across both clusters, with the exception of flexi-time in Cluster 4, where a median score of 5 (>50%) was recorded for the uptake of flexi-time (compared to a median score of 0 recorded for flexi-time in Cluster 2). Both Clusters 1 and 3 show a medium to high uptake of shift-work, with a median score of 3 (11-20%) recorded by Cluster 1 and a median score of 4 (21-50%) recorded by Cluster 3, with the difference between the two Clusters being significantly different ( $p < 0.001$ ). In addition Cluster 1 recorded a median score of 5 (>50%) in the uptake of annual hours contracts, compared to a median score of 0 being recorded by Cluster 1, with this difference also being significantly difference between the two clusters ( $p < 0.001$ ).

Table 2 outlines the demographic profile of each of the four Clusters, in addition to testing for demographic differences across all four Clusters and between Clusters 2 and 4 and Clusters 1 and 3. Of the demographics explored growth in main market was the only demographic variable not significant in determining cluster membership. Industry sector, trade union membership, markets served, size of the workforce, percentage of females employed and age of the workforce (percentage of the workforce aged less than 45) were significantly different across the four clusters ( $p < 0.001$ ).



**Table 2: Demographic Profile of Organisations Across Clusters**

		Cluster 1	Cluster 2	Cluster 3	Cluster 4	p-value <sup>1</sup>	p-value <sup>2</sup>	p-value <sup>3</sup>
Industry Sector	Services	70 (41.2%)	130 (60.5%)	85 (27.2%)	99 (49.7%)	<0.001		0.002
	Manufacturing	77 (45.3%)	54 (25.1%)	193 (61.9%)	72 (36.2%)		0.042	
	Other	23 (13.5%)	31 (14.4%)	34 (10.9%)	28 (14.1%)			
Number of employees in a Trade union	None	22 (16.3%)	60 (30.5%)	34 (12.2%)	64 (37.6%)	<0.001	0.315	0.346
	50% or less	77 (57.0%)	103 (52.3%)	154 (55.4%)	77 (45.3%)			
	More than 50%	36 (26.7%)	34 (17.3%)	90 (32.4%)	29 (17.1%)			
Growth in main market	Declining	31 (18.7%)	65 (30.7%)	71 (23.1%)	39 (20.1%)	0.093	0.033	0.447
	Stagnant	65 (39.2%)	80 (37.7%)	122 (39.6%)	76 (39.2%)			
	Growing	70 (42.2%)	67 (31.6%)	115 (37.3%)	79 (40.7%)			
Market	National	68 (40.0%)	119 (55.3%)	106 (34.2%)	83 (41.9%)	<0.001		0.206
	International	102 (60.0%)	96 (44.7%)	204 (65.8%)	115 (58.1%)		<0.006	
Total number of employees		425 (245, 1028)	325 (130, 700)	550 (300, 1550)	362 (142, 990)	<0.001	0.440	0.044
Percentage female employees		31 (17, 46)	35 (17, 52)	29 (17, 46)	35 (25, 54)	<0.001	0.216	0.605
Percentage of the workforce who are under 45		60 (50, 75)	72 (60, 85)	64 (50, 76)	65 (50, 80)	<0.001	0.003	0.274

<sup>1</sup>Difference between all clusters (Chi-square test or Kruskal-Wallis), <sup>2</sup>Difference between Clusters 2 and 4, <sup>3</sup>Differences between Clusters 1 and 3.

The results of this analysis indicate that there are distinct novel clusters of organisations based on FWAs. Organisations in Cluster 1 are more likely to be in the manufacturing sector, with less than 50% of their employees represented by trade unions, serving international markets, with a median of 425 employees, a median of 31% are females with a median of 60% of the workforce aged less than 45 years. Cluster 2, which represents more traditional working hours was predominantly made up of organisations in the service sector, with less than 50% of their employees represented by trade unions and serving national markets. The organisations in

Cluster 2 were significantly smaller in size than the other three clusters (median=325,  $p<0.001$ ), with a significantly younger workforce compared to the other three clusters (median percentage of employees aged under 45=72%,  $p<0.001$ ), and a median of 35% of female employees. Organisations in Cluster 3 were more likely to be manufacturing organisations, with less than 50% of the workforce represented by trade unions and serving international markets. These organisations were also significantly larger than organisations in the other three clusters ( $p<<0.001$ ), with a significantly smaller proportion of female employees (median percentage of female employees = 29%,  $p<0.001$ ) and a median of 64% of the workforce aged less than 45 years. Finally, membership of Cluster 4 can be characterised as organisations from the services sector, with less than 50% of their employees represented by trade unions, serving international markets with a median workforce of 362 employees, of which a median of 35% are female employees and a median of 65% of the workforce are aged less than 45 years. In addition to organisational demographics, we tested for the significance of country across all four clusters.

**Table 3: Variation in Bundle Membership by Country**

	France	Germany	Hungary	Ireland	Italy	Sweden	United Kingdom	p-value <sup>1</sup>	p-value <sup>2</sup>	p-value <sup>3</sup>
Bundle 1	39 (41.9%)	67 (22.2%)	8 (8.4%)	11 (14.1%)	1 (0.8%)	38 (28.8%)	9 (11.0%)	<0.001	<0.001	<0.001
Bundle 2	35 (37.6%)	16 (5.3%)	24 (25.3%)	38 (48.7%)	51 (43.2%)	15 (11.4%)	37 (45.1%)	<0.001	<0.001	<0.001
Bundle 3	16 (17.2%)	108 (35.8%)	37 (38.9%)	21 (26.9%)	59 (50.0%)	45 (34.1%)	26 (31.7%)	<0.001	<0.001	<0.001
Bundle 4	3 (3.2%)	111 (36.8%)	26 (27.4%)	8 (10.3%)	7 (5.9%)	34 (25.8%)	10 (12.2%)	<0.001	<0.001	<0.001

<sup>1</sup>Difference between all bundles (Chi-square test or Kruskal-Wallis), <sup>2</sup>Difference between Bundles 2 and 4, <sup>3</sup>Differences between Bundles 1 and 3

The profile of cluster membership across the seven countries is presented in Table 3, highlighting the significant association between country and cluster membership ( $p<0.001$ ). Finally, differences in the HR outcomes (employee turnover and absenteeism) and organisational performance (productivity and profitability) across the four clusters are

presented in Table 4. The variables employee turnover ( $p < 0.001$ ), absenteeism ( $p < 0.001$ ) and productivity ( $p < 0.015$ ) were found to be significantly different across the four clusters. In addition, Cluster 4 had significantly lower employee turnover ( $p < 0.001$ ) and significantly higher productivity ( $p = 0.006$ ), when compared to Cluster 2. No significant differences were found when Cluster 1 was compared to Cluster 3.

**Table 4: Associations Between HR Outcomes and Organisational Performance Across**

Outcome Variables	Bundle 1	Bundle 2	Bundle 3	Bundle 4	p-value <sup>1</sup>	p-value <sup>2</sup>	p-value <sup>3</sup>
<b>HR Outcomes</b>							
Annual employee turnover	5 (3,10)	8 (3,15)	5 (2, 10)	5 (3,9)	<0.001	<0.001	0.468
Number of days absent (per employee)	7 (4,10)	5 (3, 7)	7 (5,11)	6 (4, 9)	<0.001	0.128	0.210
<b>Organisational Performance</b>							
Productivity (% Above average)	86 (53.1%)	90 (43.5%)	139 (45.1%)	107 (57.2%)	0.015	0.006	0.101
Profitability (% Above average)	79 (48.8%)	77 (38.1%)	127 (41.5%)	85 (45.0%)	0.192	0.169	0.132

## Bundles

Difference between all bundles (Chi-square test or Kruskal-Wallis), <sup>2</sup>Difference between Bundles 2 and 4, <sup>3</sup>Differences between Bundles 1 and 3

## Discussion

Using a cluster analysis algorithm we identified four distinct clusters of organisations based on patterns of uptake of the twelve different FWAs. The demographic profile of the clusters and the associations between cluster membership and HR and organisational performance outcomes were tested for significance. The analysis identified four distinct clusters of FWAs which exist across the seven EU countries included in this study. Of the demographic variables examined, growth in main market was the only variable not significantly different across the clusters, suggesting that context does matter, raising questions about the universal applicability of FWA policies and practices among international organisations. Finally, our analysis found a significant association between employee turnover, absenteeism and productivity and cluster membership.

In response to *RQ1* we found a four cluster solution, indicating different patterns of FWA usage in each cluster. This would indicate that different FWAs are commonly grouped together across the 1,064 organisations included in this study. Cluster 1 recorded a high uptake of annual hours contracts (>50%), in addition to a medium uptake of shift-work, overtime and flexi-time (11-20%) and a low uptake of weekend work, part-time working, temporary/casual work and fixed term contracts (1-10%); Cluster 2 represents more traditional work practises with a low uptake of overtime, part-time working, temporary/casual contracts and fixed term contracts (1-10%); Cluster 3 recorded a medium uptake of shift-work (21-50%), with a low uptake in weekend work, overtime, part-time working, flexi-time, temporary/casual contracts and fixed term contracts (1-10%) and Cluster 4 represents a very high uptake of flexi-time (>50%) and to a low level of uptake in (weekend work, overtime, part-time working, temporary/casual contracts and fixed term contracts (1-10%). In answering *RQ2*, the structure of clusters across the FWA variables identifies key FWA variables that distinguish the four clusters; in particular Cluster 2 and Cluster 4 differ greatly on the uptake of flexitime, while Cluster 1 and Cluster 3 differ greatly on the uptake of annual hours contracts. These results allow us to draw conclusion about the significance of each individual FWA in the formation of the different clusters. For example, Cluster 2 represents more traditional working hours, with a median of 6-10% uptake of overtime. For all other FWAs, a median uptake of 1 (<5%) or 0 (FWA not used) was recorded. This compared to Cluster 1 where a median score of 5 (>50%) was recorded for annual hours contracts. For all other FWAs in Cluster 1 a median score of 3 or less was recorded. The findings from this study confirm different patterns of FWAs across exist among the organisations included in this study. Furthermore, the results highlight that in three of the four clusters, Clusters 1, 3 and 4, there is one FWA scoring medium or high uptake of an individual FWA, but the use of all other FWAs within these clusters, where applicable, is very low. These results advance our knowledge in this area by highlighting the contribution of each

individual FWA, in terms of their level of uptake, in the formation of each cluster, indicating that not all FWAs contribute equally to the formation of FWA clusters.

The context in which FWAs are more or less conducive has been largely ignored in studies to date (Stavrou & Kilaniotis, 2010; Stavrou, 2005). As a result we do not know whether or not there are patterns and variations of organisations following similar or different FWA strategies. In response to *RQ3*, the results of this study indicate that, yes, context does matter. Size of the workforce, percentage of female employees, percentage of employees aged less than 45, industry sector, percentage of employees represented by trade unions, markets served and country were all significant in determining cluster membership. By examining organisational demographics we can confirm that clusters of FWAs are not universally applied, highlighting the importance of context when researching FWAs. Our analysis yielded four novel clusters of organisations based on the uptake of twelve different FWAs, with each of the clusters found to have different demographic profiles. The findings also indicate that there are different patterns of FWA across the seven EU countries included in this study.

In response to *RQ4* we found significant associations between cluster membership and employee turnover, absenteeism and productivity. In terms of employee turnover, the strongest association was recorded with Cluster 2 where organisations offering more traditional working hours recorded significantly higher levels of employee turnover compared to organisations in the other three clusters. This finding may be explained by Rhoades and Eisenberger (2002) who note that organisations offering FWAs provide a signal to employees that they care about their well-being, promoting greater psychological commitment among employees resulting in a lower tendency to quit. Furthermore, based on the principle of social exchange theory, employees with access to FWAs may feel as though they are fortunate to have such flexibility

and as a result experience greater perceptions of employer support for family. This in turn means that employees are more likely to repay the organisation through employee loyalty and reduced employee turnover. Furthermore, organisations in Cluster 2, where more traditional working practices are represented, recorded significantly higher employee turnover compared to organisations in Cluster 4, where a median score of 5 was recorded for flexi-time. The findings from this study would concur with studies to date that have shown that the levels of organisational turnover have decreased after the implementation of flexi-time programs (Narayanan & Nath, 1982; Pierce & Newstrom, 1983). In more recent studies Batt and Valcour (2003) and McNall et al., (2010) highlight a negative correlation between the availability of flexi-time and turnover intentions. Moreover, Grover and Crooker (1995) found that offering family-friendly policies were successful at retaining employees, even if individuals did not use the policies themselves. From a human resource and talent management perspective, organisations looking to reduce attrition rates and retain top talent should consider the benefits of offering FWAs when considering ways to reduce turnover. In addition to reducing employee turnover, the literature suggests that offering FWAs may indicate an overall supportive work environment, attracting a pool of candidates from the labour market that value such flexibility (Raghuram, London, & Holt Larsen, 2001).

Surprisingly, a significantly weaker association was recorded between absenteeism and Cluster 2 compared to the other three clusters. Studies to date have suggested that companies offering FWAs benefit from substantial reductions in absenteeism (Baltes et al., 1999; Dalton & Mesch, 1990). Organisations may choose to offer FWAs as an employee's inability to deal with the demands of work and home may manifest itself in the form of increased absenteeism (Fernandez, 1986; Perlow & Kelly, 2014; Schultz, 1985; Van den Broeck, Vansteenkiste, Lens, & De Witte, 2010). In theory, a greater ability to vary or delay start times of the working day,

as allowed by Cluster 4, should discourage absenteeism and tardiness (Golden, 2012; Munsch, Ridgeway, & Williams, 2014). As such, Pierce, Newstrom, Dunham and Barber (1989) propose that organisational attendance (i.e. reduced absenteeism) should increase as the amount of discretionary time increases. Based on the principle of social exchange theory we predicted that FWA clusters would generate value and benefits for employees, for example they allow employees flexibility around when and where work is completed, making it easier for employees to manage their work and home lives. This in turn should generate a feeling of obligation towards the employer, resulting in a reduction of the misuse of sick days to deal with non work commitments, resulting in lower absenteeism. Given the high uptake of flexi-time in Cluster 4 we would have expected a stronger association between Cluster 4 and absenteeism, as employees should be better able to balance work and non work commitments. Although on one level the results of this study appear to be counter intuitive, there are a number of empirical studies going back to the 1980's that have failed to exclusively report a significant relationship between flexi-time and reduced absenteeism. A meta-analysis conducted by Baltes *et al.* (1999), investigating the effects of flexible schedules, reported a reduction in absenteeism in three quarters of cases. Within the extant literature several studies have reported mixed findings, for example, Kim and Campagna (1981), Swart (1985) and Zippo (1984), while studies carried out by McGuire and Liro (1986) and Thomas and Ganster (1995) found no relationship between absence rates and flexible scheduling.

Furthermore, it should be noted that some FWAs serve the needs of the employer, as in the case of Clusters 1 and 3, meaning employees are less likely to be able to adjust their time and place of work to meet the demands of caring/non work responsibilities, creating greater pressure on the demands of employees time. Studies to date have demonstrated that unscheduled absences occur because employees need to deal with sicknesses, other family issues, personal needs, or

even stress from excessive workloads (Dalton & Mesch, 1990; Scheibl & Dex, 1998). In the case of annual hours contracts, Gall and Allhop (2007) note a number of potential disadvantages for workers, for example, restriction of choice of when to take holidays and inflexible shift rotas and unconventional shift patterns, with the possibility of more unsociable hours. Furthermore in terms of benefits gained by employees from the use of annual hours, Ryan and Wallace (forthcoming) note that if the use of reserve hours is high, then the gain of increased leisure time does not materialise and instead workers are at a disadvantage due to working hours without additional pay. Such restriction and inflexibility associated with annual hours contracts may go some way towards explaining the association recorded between Cluster 1 and absenteeism. Similarly, in the case of Cluster 3, where a median score of 4 (21-50%) was recorded for the uptake of shift-work; these practices may not fully meet the needs of employees. In terms of the level of uptake, we do not know whether or not employees have the option of choosing shift-work. Some employees, especially women, may 'choose' shift-work, for example evening shifts as they can reduce childcare costs, allowing their partners or other family member to look after children instead of incurring high childcare costs (Gambles, Lewis, & Rapoport, 2006). While this might alleviate childcare problems, it does not necessarily turn evening shifts into employee-friendly working practices. In the case of Clusters 1 and 3, it can be argued that flexibility in these instances serve the need of the organisation, with only secondary regard for employees. Based on the principle of social exchange theory employees may not feel as though they have benefited from use FWAs and therefore will feel less obliged to "give back" or return benefits to the organisation, and as a result are more likely to misuse sick days to deal with non work commitments.

While we cannot say for certain why Clusters 1, 3 and 4 recorded a significantly higher levels of absenteeism compared to Cluster 2, we can offer a number of possible suggestions. Firstly,



this study does not address or take into consideration the causes of absenteeism within the organisations used in our sample, nor does it distinguish between short term and long term absenteeism or absenteeism as a result of illness compared to absences due to non work commitments. It is possible that providing clusters of FWAs was not enough to rectify the issue non work commitment in the organisations included in this study. It may be the case that employees were dissatisfied with their work situation, outside of work/family conflict, for example experiencing job stress or burnout, which could not be eliminated through the use of FWAs. Given the multifaceted and complex nature of absenteeism organisations must first identify the root cause(s) of the problem, before determining whether or not clusters of FWAs will be sufficient to resolve the problem.

From an organisational performance viewpoint, organisations in Cluster 4 recorded a significantly stronger association with above average productivity, while organisations in Cluster 2 recorded a significantly weaker association with above average performance. Literature to date has argued that flexi-time, as offered in Cluster 4, can create an environment and/or a schedule that is conducive to personal productivity, thus improving on the job performance and productivity. Perhaps the autonomy afforded to employees availing of flexi-time increases overall job satisfaction and employee motivation in addition to reducing stress and the interference of work and home, thus increasing overall productivity. Furthermore, Barker (1995) highlighted that when employees are given discretion over when and where work is completed, they will generally work during their most productive hours. The principle of social exchange theory can be used to explain this result. Employees would feel as though they personally benefited from the actions of the employer offering FWAs which give them control over their working day feel a moral obligation to recompense their employer, in this case employees recompense employers in the form of increased effort.

Looking that the differences in association between Clusters 1 and 3 and productivity, Cluster 1 recorded a significantly stronger association with productivity. From the perspective of annual hours contracts, annual hours systems are designed so that workers only work when they are needed, thereby reducing idle time. Ryan and Wallace (forthcoming) highlight that annual hours contracts improve productivity and efficiency. While in standard hourly arrangements, peaks in demand might be covered through overtime, or employing temporary workers, annual hours contracts allows for organisations to closer match working hours to organisational demands (Arrowsmith, 2007; Bell & Hart, 2003; Gall, 1996; Gall & Allsop, 2007).

Finally, in terms of profitability, the results of this study did not find significantly different associations between any of the clusters and organisational profitability. Looking at the existing research, Dennis (1997) explains that FWAs can have a positive impact on profitability as they provide greater efficiency of operations and increased employee loyalty. Increased profitability attributed to the availability of flexi-time can be linked to two sources within the literature (1) FWAs leads to greater job satisfaction, resulting in higher levels of performance, ultimately yielding higher outputs and profits for the organisation (Parker et al., 2003; Wilkin, 2013) and (2) the availability of FWAs is associated with attracting and retaining valued employees, which in turn reduces the costs associated with employee turnover in the form of recruitment and training costs. Furthermore, Kelly *et al.*, (2008) demonstrated that employees in organisations reporting a better quality of work-life balance reported more job satisfaction, growth potential and job security, and these were in turn related to organisational profitability.

Although we can not explain for certain the non significant differences in associations with profitability across the four clusters we can offer the following possible explanations. Firstly,

and most importantly, the data was collected during a period of economic downturn which may have had an impact on the levels of profitability recorded by organisations. Secondly, this study does not take into account the length of time since the FWA programs were implemented. FWA policies can be costly to implement and therefore will take time for such programs to pay for themselves. Finally, a precise measurable indicator of profitability may have yielded more accurate results, although finding such a measure has proven difficult.

The findings and conclusions drawn from this research should be interpreted with the following caveats in mind. This study relies on self-report data, however, the use of multiple informants was not practical given the size of the survey research conducted; therefore this is a necessary trade-off in this study in order to allow us to examine the relationship between FWAs and organisational outcomes. Perhaps, further studies could be improved by inputs from multiple sources, such as employees or managers other than those responsible for HRM. Furthermore, a precise measurable indicator of productivity and profitability would have strengthened the study, although finding a measure rigorous enough to use across industries will prove difficult. Further studies will also need to develop and use measures that capture organisational outcomes more rigorously to provide a better understanding of the precise processes and mechanisms through which FWAs impact on organisational productivity and profitability. Finally, when examining the relationship between FWAs and outcome variables the length of time since the FWA was introduced should be taken into consideration so that the potential costs associated with implementation can be considered, in addition to allowing time for the organisation to recoup these costs, and for FWAs to yield direct benefits to the organisation. A more longitudinal study could help in this regard.

## **Conclusion**

In conclusion, the contribution of this study is threefold; firstly, presenting evidence from a large sample, this study advances knowledge in the field by empirically identifying the formation of FWA clusters; secondly this study confirms distinct clusters of organisations offering various FWAs based on cluster membership; and thirdly we assess the association between FWA clusters and organisational outcomes across 1,064 organisations in seven EU countries, confirming a significantly different association between each of the four clusters and employee turnover, absenteeism and productivity. For management, the results of the empirical research reinforce the advantages of the different clusters of FWAs from an organisational perspective. These findings extend the results of previous studies, but also allow us to draw conclusions about the impact of clusters of FWAs on organizational outcomes. The pattern of results recorded also point to the importance of differentiating between FWAs which primarily serve the needs of the organisation compared to FWAs which primarily serve the needs of employees. Given the current economic conditions organizations are operating within, it is incumbent upon organisations to maximise strategic capabilities to their full potential. While previous studies have focused on the employee benefits associated with FWAs this study focuses on the business case, investigating clusters of FWAs as opposed to individual FWAs, taking into consideration the level of uptake of each FWA, in addition to recognising the importance of context when studying FWAs.

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# On the uptake of flexible working arrangements and the association with human resource and organisational performance outcomes

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