Employees’ propensity for emotional contagion as a mediating variable between job satisfaction and perceptions of customers’ mood: a comparative case study.

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1. Abstract

Past investigations have demonstrated the important role of emotions in the workplace. The present research focuses on frontline employees and on how the relation between their perceptions of customers’ mood and job satisfaction can be moderated by their levels of emotional contagion. A comparative case study was conducted with two conditions of service encounters: face-to-face and telephone. The results show that for both conditions there is a positive and significant correlation between perceptions of customers’ mood and job satisfaction. Only for the face to face group this relation was moderated by employees’ propensity for emotional contagion. The author suggests that where all the sources of emotional contagion are present (proxemics, kinesics, and paralinguistic) the emotional contagion scale created by Doherty (1997) could and should be used as a recruitment tool. For the job environments where employees are not exposed to the visual sources, more research is still needed to understand how the contagion process takes place.

Keywords: emotional contagion, job satisfaction, front line employees, customers, mood.
2. Acknowledgments

I dedicate this work to my supervisor and lecturers for the priceless stock of knowledge, dedication and incommensurable support – I owe you what I know; to my family and friends for the courage, confidence, values and strong belief in me – I owe you what I am; to my manager and work colleagues for the unendingly understanding, flexibility and investment in my personal development; to all the participants of the study and particularly to Jon Simpson for making this research possible; and at last to my friend and partner Alberto Caio for the extraordinary presence in my life, without which this Master would not be possible.

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3. Introduction

Particularly directed to customer service organisations, this research will explore the role of employees’ propensity for emotional contagion on overall job satisfaction, when such employees are permanently exposed to customers’ moods that, according to Dallimore et al. (2007), may vary in both valence (positive or negative), and arousal (high or low). In the current scenario of expansion of the service economy (Grandey et al., 2004), Groth (2005) defends that it is extremely important to explore the dynamics associated with the role of public facing employees.

From a Human Resource Management (HRM) perspective, to scrutinize the dimensions of such roles can be extremely helpful for the strategic design of employees’ development techniques and effective recruitment tools. The relevance of understanding the requirements to be a successful frontline employee is undeniable, as the quality of service encounters determines customer satisfaction and consequent organisational success (Specht et al., 2007). Therefore, the present study focuses on the influence of employees’ perception of customers’ mood on their job satisfaction, arguing that such perception will impact on the way such workers form their attitudinal and cognitive schemas regarding the way they feel about their job. Moreover, the author suggests that this relation is moderated by an individual characteristic, the propensity for emotional contagion. In order to test such hypotheses a comparative study was conducted in two organisations. In one of them the interaction with customers occurs face to face, whereas in the other this contact is established via telephone. In the first part, the literature review and
conceptual framework are presented by critically describing the more sonant theories and relevant academic findings on the subjects. The conceptual framework will briefly introduce the reader to the research model and underlying hypothesis. Following this, the methodology will be disclosed, including important factors such as the measurement instruments’ validity and reliability. Finally, a findings and analysis chapter will expose the results and a discussion of these findings, followed by a conclusion and recommendations chapter, where a summary of the principal arguments as well as recommendations for future research will be developed.
4. Literature Review

4.1 Job satisfaction

Job satisfaction is a construct that has been part of the academic literature for a long time, without a consensus being reached on its definition (Falkenburg and Schyns, 2007).

Locke (1976, p. 1300) described it as “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences”. More recently, Alqashan and Alzubi (2009) illustrate it as the rewarding nature of a person’s work. Being either related to work experiences or with the nature of the work itself, the role of job satisfaction as an organisational competitive asset is one of unquestionable value and increasing interest, and this is deservedly so given its, albeit indirect, relation with organisational productivity (Wright and Davis, 2003).

Early studies on the matter tried to relate job satisfaction with a vast array of variables. Staw et al. (1986), for example, argued that it was connected with early experiences in life. Their research, however, had several reliability issues such as the failure to control situational variants, the very small sample size and also the modest correlations that jeopardised the generalisability of the findings. Furthermore, in 1989, Arvey et al. studied two monozygotic twins who had always lived apart from each other. The researchers affirmed that job satisfaction had a genetic source but many scholars refuted the validity of such arguments (see, e.g., Cropanzano and James, 1990), based mainly on the methodology used by the authors to draw such conclusion.
More related with organisational studies, recent evidence has supported the relation between job satisfaction and organisational commitment (Testa 2001) and turnover (Udechukwu, 2009). Hence, the costs of continuous recruitment and training can be reduced when the levels of job satisfaction are high, as withdrawal or counterproductive behaviours will be reduced (Slattery and Selvarajan, 2005).

Many authors have sustained that job satisfaction is related to organisational citizenship behaviour (Organ et al., 2006; Podsakoff et al., 2000), intra organisational behaviour (Bradford et al., 2009) and performance (Bowling, 2007). Although the causal relationship between performance and job satisfaction has been empirically investigated since the 1920's Hawthorne Studies (Boshoff and Allen, 2000), doubts still remained about the nature of this relationship (see, for example Cranny et al., 1992). As Steers stated (1981, p. 309) ‘(...) the fact that workers are satisfied does not mean that they will produce more, only that they are satisfied'. While it was widely believed that satisfied workers would perform well, it was later demonstrated that this relation was stronger in the opposite direction, i.e., those who perform well are more satisfied with their job (Boshoff and Allen, 2000).

Regarding frontline employees, job satisfaction is often depicted as a result of motivation that is closely linked with the individuals’ innate will to help others (Pandey and Stazyk, 2008). Although many researchers have supported this conception (see, e.g., Park and Rainey, 2007, 2008; Steijn, 2008; Taylor, 2008)
a panoply of other variables can increase or reduce job satisfaction (see, e.g. Vandenabeele, 2009) and being a satisfied frontline employee does not necessarily imply a vocation to serve as such roles imply different tasks and responsibilities.

Nevertheless, the revenues of job satisfaction are increasingly obtaining more and better recognition: a happy and committed workforce represents human capital (Starks and Brooks, 2009), the stock of knowledge, skills and abilities that the individual possesses and that contribute enormously for the distinctive core competencies that allow a firm to perform better than its competitors (Harrison and Kessels, 2004; Lawler, 2008).

Furthermore, scholars identify extrinsic and controllable variables that are directly related with job satisfaction, inter alia, long working hours (Burke and Fiksenbaum, 2008; De Raeeve et al., 2007; Dembe et al., 2005; van der Hulst, 2003), training (Sahinidis and Bouris, 2008), online training (Sitzmann et al., 2006), payment (Carr et al., 1996; Gupta and Shaw, 1998), enhancement of employees’ voice (Batt et al., 2002; Hodson, 2002; Kato and Morishima, 2002), leadership style, organisational culture, organisational conditions (Mor Barak et al., 2001), and work environment (Wright and Davis, 2003).

The manipulation of the mentioned variables to increase job satisfaction is a strategic via for achieving organisational goals that include the amplification of employee’s positive outcomes (Cameron et al., 2003), augment of productivity (Guthrie, 2001), expansion of corporate financial performance (Carpenter et al. 2001) and retention (Guthrie, 2001).
However, in the current economic scenario it is not always easy to assure that job satisfaction is present in employees. In a reality of crisis, one of the most common ways for organisations to cut on costs is by sacking its workers (Nixon et al., 2004). For the remaining employees this fact represents a breach of the psychological contract, the *quid pro quo* of all working relations (Hui et al., 2004; Smithson and Lewis, 2000). The consequences of job insecurity, which has been unsurprisingly found to be negatively related with job satisfaction (Sverke et al., 2002), performance (Judge et al., 2001), and customer service (Kotler and Keller, 2006), may even produce damaging effects on workers’ citizenship behaviours (Feather and Rauter, 2004; Wong et al., 2005), attitudes (Sverke et al., 2002), health and safety acquiescence (Probst and Brubaker, 2001), counterproductive conducts (Harrison et al., 2006), and health (Ferrie et al., 2005).

Additionally, researchers started to explore intrinsic sources from where job satisfaction could arise; employees’ personal characteristics as personal growth, personal development, life / work balance, and personal relationships (Matheny, 2008) were also identified as tightly linked with job satisfaction. The investigation of the influence of personality traits on job satisfaction is also a significant part of the literature (e.g. Judge et al., 2002; Lounsbury et al., 2003). Boudreau et al (2001) found that agreeableness, conscientiousness and neuroticism are negatively correlated with the construct, whereas extraversion is positively associated. In an experience with 496 workers, Seibert and Kramer (2001) also describe a negative relation between neuroticism and job satisfaction and a positive one between job satisfaction and extraversion.

Although many scholars have tried to define affective traits and experiences as predictors of various organisational outcomes (for a meta-analysis see, e.g. Meyer et al., 2002), the exploration of the emotional variables of job satisfaction is still scarce and, according to Seo et al. (2004, p. 424): “Understandings of work (…) that fail to consider human emotion are incomplete”.

Fisher (2002) stated that employees with higher levels of job satisfaction are more likely to experience positive emotions and good moods at work. However, the influence of customer’s mood in this relation was not considered, even if some of the research participants worked directly with customers. Therefore this research focus is the investigation of a still virgin field: the mediating role of employees’ propensity for emotional contagion between job satisfaction and exposure to consumer’s mood.

4.2 Customer interaction

The interaction with customers goes beyond an automatic response to immediate requests. It involves a range of normative behaviours expected from employees that will increase customers’ attitudes towards the organisation (Dallimore et al., 2007). Pugh (2001) points that customers request more than just a product and that one of the expectations from service interactions is an emotional input. An employee needs to acquire both cognitive and affective
elements to respond to this demand, as customers’ expectations are to be felt and simultaneously understood (Luong, 2005).

Employees’ behaviours during service interactions have been shown to have an impact on customers’ perceptions (Dallimore et al., 2007; Gabbott and Hogg, 2001; Sundaram and Webster, 2000) often referred to as ‘employee affective delivery’ (Tsai and Huang, 2002). Such delivery arises from a range of normative behaviours that include, e.g., smiling, thanking and greeting (Dallimore et al., 2007), and have been shown to exert influence in areas such as satisfaction appraisals (Menon and Dube, 2000; Smith and Bolton, 2002), consumers’ intentions to return (Tsai and Huang, 2002) and even on consumers’ mood (Pugh, 2001). Understanding the dynamics of affective deliveries is valuable for organisations (Diefendorff and Richard, 2003) as they can serve as differentiators and provide intangible outcomes such as word of mouth recommendations and loyalty (Luong, 2005). However, this relation does not exist in a vacuum and other external variables have been identified in the literature to promote such outcomes, inter alia, the space design and ambience (e.g. Cameron et al., 2003; Lee and Dubinsky, 2003).

Diefendorff and Richard (2003) indicate that the form of affection expected from the worker varies according to his / her position. From frontline employees, research sustains that the most ubiquitous expected behaviour is friendliness (Luong, 2005). The non verbal components of such behaviours consist of three categories: proxemic, i.e., the physical distance between individuals; paralinguistics, i.e., the features of spoken communication that do not engage words (e.g., fluency, tone, vocal pitches), and kinesics, also known as body language (Gabbott and Hogg, 2001; Hess et al., 2000; Sundaram and Webster,
2000). But the causal relation between employees’ affective delivery and organisational outcomes is not mechanical; customers are not a *tabula rasa* and their own affective state (mood) can influence the way how such deliveries are perceived (Tsai and Huang, 2002). Moreover, frontline employees ‘(...) and customers, by definition, come from different organizations with different expectations and backgrounds’ (Verbeke and Bagozzi, 2002, p. 731), therefore to achieve a tuning between both is a complex process of co-coordinated properties that include behavioural, emotional and physiological components (Keltner and Anderson, 2000).

It is not always easy for employees to display positive emotions during service interactions (Grandey et al., 2004), as customers do not always act in neutral and functional ways (e.g. Ringberg et al., 2007).

Consumers’ attitudes are not a new subject in organisational, marketing, and finance related literature, where the emergence of terms such as consumer value (Gale, 1994; Kotler, et al., 1999; Sweeney and Soutar, 2001; Woodruff, 1997), led to an exhaustive instrumental research to anticipate and manipulate the subsequent organisational gains (Lin et al., 2009).

Predicting customers’ loyalty, satisfaction, buying trends, negotiation and buying styles (see, e.g., Arnett, 2009; Johansson, 2006) is a major concern to scholars and practitioners. A consequence of this interest is the uncountable amount of published customer focused questionnaires, models and theories (e.g. Bradford et al., 2009; Howcroft et al., 2007; Nagle and Holden, 2002; Paridon and Carraher, 2009; Walters, 2007).

However, the relationship between organisation and customer is dyadic, dynamic and reciprocal, and should not be superficially or instrumentally
described. The impact of the customers in organisations goes beyond what one can read on the balance sheet. Customers may affect an organisation’s reputation, image, trust, and ultimately, its employees.

Consciousness about customers’ inappropriate behaviour began to arise in the psychology and marketing fields of knowledge (e.g. Fullerton and Punj, 2004), where concerns as compulsive and addictive buying behaviour (see, for example, Budden and Griffin, 1996; Elliot et al., 1996; Hassey and Smith, 1996), kleptomania (Fullerton, 2007), fraudulent complaining (Reynolds and Harris, 2005) and shop lifting (Phillips et al., 2005; Reynolds and Harris, 2006) were leading the research directions.

Customers’ misbehaviour and improper conduct is receiving nowadays more of the HRM attention, either in academic (Grandey et al, 2004), and practitioner-oriented research (e.g. Dube, 2003), and the reasons are plausible: the British Retail Consortium (BRC, 2009, in press) annually reports the escalating occurrences of clients’ misbehaviour and its consequences on employees’ physical and emotional well-being; also a study conducted by the Union of Shop, Distributive and Allied Workers (USDAW, 2004) revealed that frontline employees are constantly exposed to customers’ negative behaviours.

HRM literature regards the effects of workplace negative experiences (e.g. Glomb and Liao, 2003), on workers’ emotional regulation (Grandey et al, 2004), employment intentions (Canton et al, 2009), performance, turnover (Witt et al., 2004; Wu and Hu, 2009), motivation and job satisfaction (Elias, 2004).

This research proposes that customers’ mood can be an independent variable of job satisfaction, with more or less strength depending on the employees’ propensity for emotional contagion.
4.3 Mood

Mood is often described as an affective state that varies in valence (positive and negative) and arousal (high or low) and that is connected with both cognitive and behavioural processes (e.g., Dallimore et al., 2007; Forgas and Vargas, 2000; George and Zhou, 2007). The subject began to hold academic interest particularly in the fields of psychology and psychiatry (e.g. Joormann et al. 2007; Kovacs et al., 2009). Laboratory experiences have been conducted to infer what constitutes each of the mood’s valences: dimensions of a positive mood are, inter alia, divergent thinking, straightforward schemas and heuristics, fluid categorization and ideation (e.g., Clore at al., 2001; Fredrickson, 2001; Kaufmann, 2003). Negative mood is depicted as promoting a more analytical and systematic approach, with greater attention to detail and less preoccupation with existing scripts and schemas (e.g. Kaufmann, 2003).

The study of mood is not recent and researchers have tried to investigate this affective state resorting to multiple strategies in laboratorial studies. Some of the most common Mood Induction Procedures (MIP) on participants use music that can be depicted as depressing, such as the ‘Opera 131 for Strings’ by Beethoven (Gilboa-Schechtman et al., 2000) and ‘Russia Under the Mongolian Yoke’ by Prokofiev (Gemar et al., 2001; Kelvin et al., 1999), and neutral or cheerful music like the ‘Waltzes Nos. XI and XII’ by Chopin (Startup and Davey, 2001).

Other common procedure is the Velten MIP (Velten, 1968), which consists of a set of mood related statements that the participant is required to read and to
experience the mood accordingly with the one inherent to each statement. Velten’s MIP continues to be widely used and improved (see for example, David et al., 2006; Wagner et al., 2009) and has been defined as extremely effective for depressive mood induction (Gerrards-Hesse et al., 1994). Other strategies include stories, autobiographic evocations, photographs and environment manipulation (Haaga et al., 2002; Ingram and Ritter, 2000; Richards and Gross, 2000; Startup and Davey, 2001). Recently, Goritz and Moser (2006) tried to verify the feasibility of such mood induction strategies through the web. They found that both the Velten method and photographs were efficient in inducing negative moods but were ineffective in producing positive moods when applied virtually.

An interesting experiment realised by Petrides and Furnham (2003) found that MIP is also related to Emotional Intelligence (EI) traits, i.e., individuals with high levels of EI are more sensitive to MIP and are also faster to identify other people’s moods through their facial expressions.

A research conducted by Gohm (2003) found that high levels of EI are related with effective mood regulation processes. Mood has also been shown to influence information processing, i.e., positive moods increase top down information processing and assimilation, whereas negative moods favour this processing in a more accommodative and externally centred style (Bless, 2001). However, as negative moods increase suspicion about the information to be processed (Forgas and East, 2008) they also reduce processing biases and judgemental errors and augment accuracy in, for example, observer’s recollections (Forgas, 1998; Forgas et al., 2005). Nevertheless, some researchers argue that it is obsolete to observe the effects of positive or
negative moods separately; these authorities defend that one should consider the interactive effects of both valences (e.g. George and Zhou, 2007; Schwarz, 2002; Schwarz and Clore, 2003). This school of thought postulates that, for example, the impact of a bad mood in processing a determinate experience cannot be studied in isolation; previous positive moods can determine how a person deals with a negative one, therefore they are interactive and mutually dependent. The ‘mood-as-information’ theory goes further and states that moods are unconscious informative systems that provide a person with the necessary information to form a cognitive and behavioural reaction to it (see, for example, Forgas and Vargas, 2000; Schwarz, 2002; Schwarz and Clore, 2003). However, can a mood not be in the extreme pole of this process, i.e., be itself the response or consequence of a cognitive \ behavioural reaction?

Moreover, a vast number of studies tried to relate memory and mood (e.g., Besser et al., 2008), supporting that depressed individuals tend to recall more negative stimuli than individuals in a neutral or positive mood (see, e.g. Gilboa et al., 1997; Matt et al., 1992). However, the results are not unswerving in the literature (e.g. Bradley et al., 1994; Ilsley et al., 1995) as they do not consistently demonstrate the effect of mood in explicit memory. Furthermore, as memory consists of a multi-dimensional set of processes and components, it remains indecisive which of those are influenced by depressive states, jeopardising the validity of such studies (Direnfeld and Roberts, 2005).

Mood research has recently started to amplify its scope and extent, acquiring a great amount of attention from organisational scholars (e.g. Brief and Weiss, 2002; Fisher, 2002; Rhoades et al., 2001). Organisational investigations have found relations between positive mood and chore performance (e.g., Erez and
Isen, 2002; Totterdell, 2000), assisting behaviours (Fisher, 2002; Lyubomirsky et al., 2005), in-role performance (Eisenberger et al., 2001), and perception of personal achievements (Thoresen et al., 2003), although the causality of such relations remains somehow ambiguous.

On the other hand, some researchers support that negative moods tend to optimise creativity and improve problem solving, as subjects under this affective state tend to defy the *status quo* and to look for alternative solutions (see, for example, Gasper, 2003; George and Zhou, 2002; Kauffman and Vosbur, 1997). Scholars defend that mood exerts influence in important areas like risk taking decisions (Clark et al. 2001; Yuen and Lee, 2002), creativity (Davis, 2009; Kaufmann, 2003), scepticism and detection of deception (Forgas and East, 2008, a; 2008, b), information processing (Bless and Fiedler, 2006), metacognitive experiences (Efklides and Petkaki, 2005), verbal fluency (Clark et al., 2001), social influence strategies (Forgas, 2007), and comparative judgements (Qiu and Yeung, 2008).

In the work context, researchers found relations between mood and performance (Chavez and Mendez, 2008; Coulson et al., 2008), organisational spontaneity (George and Brief, 1992), prosocial behaviour at work (George, 1991), employee withdrawal behaviour (Andrew et al., 2005), and creativity in the workplace (George and Zhou, 2007).

Though the scope of mood's research was enlarged, one needs to comply with specific work characteristics where moods are stronger in intensity and broader in sources of provenience, particularly in customer service organisations, where more organisational actors are involved (Sy et al, 2005).
As ‘when a customer interacts with an organization during service delivery, their exchange can similarly be considered a social exchange’ (Groth, 2005, p. 13), consumers’ mood can and should not be overlooked as a source of emotional contagion.

4.4 Emotional Contagion

4.4.1. Emotions... where do they come from?

The physical biases of emotional and social processes have gained an increasing amount of interest in literature over the last decades (Olson et al., 2007). It is extremely difficult to explore such processes, particularly because such investigations are based on animal experiences and on the study of the abnormal, i.e., only cases with a different damaged brain function can provide clues of what the ‘normal’ functions are. The neurological investigation path indicates that emotions are tightly linked with the amygdala and the prefrontal cortex, although more recent experiments support that the temporal pole (TP), i.e., the paralimbic region between both, is perhaps the centre of the emotional and social neuronal connections (Kondo et al., 2005; Mesulam, 2000; Olson et al., 2007).

Female macaques with surgical disruptions of the TP present anti-social behaviour, disinterest in their peers and often a violent conduct (see, for example, Franzen and Myers, 1973; Kling et al., 1993). In humans, it has been found that atrophy in this area leads to personality alterations, depression, apathy and to inappropriate social behaviour (Bozeat et al., 2000; Gorno-Tempini et al., 2004; Mychack et al., 2001; Thompson et al., 2003).
Furthermore, TP damage can cause vacillating and unstable moods like irritation and anxiety (Glosser et al., 2000), and psychiatric conditions, inter alia, bipolar disorder, schizophrenia and mania (Brooks and Hoblyn, 2005; Carran et al., 2003; Crespo-Facorro et al., 2004; Kasai et al., 2003; Murai and Fujimoto, 2003). The Theory of Mind, which can be described as the ‘(...) ability to infer desires, intentions, or beliefs in others’ (Olson et al., 2007, p. 1723), including their actions and emotions, is also intrinsically related to the TP function. Laboratorial studies detected TP activation in subjects when they were asked to formulate moral resolutions (Moll et al., 2002; Heekeren et al., 2003) to identify deception on others (Grezes et al., 2004), and also to detect other people’s emotional state (Carr et al., 2003; Vollm et al., 2006).

Moriguchi et al. (2006) found that TP is also correlated with ‘personal distress scores’, an instrument to measure the extent to which one perceives other people negative moods. Although these results lead many researchers to believe that TP is part of the emotional brain (e.g. Frith and Frith, 2003), other schools of knowledge argue that TP does influence memory instead of emotions and that is the reason why emotional perceptions and behaviours are affected when the TP is damaged (e.g., Shaw et al., 2004). But to support this belief is to say that all our interpretation of the external world has been learned, stored and codified, while there is scientific support that the emotional function is visceral and responds to perceptual stimuli that goes beyond what we learned and memorised (Kondo et al., 2005).

Researchers found that TP is activated when one faces a vast array of external emotions such as sadness (Eugene et al., 2003; Levesque et al., 2003), anger (Damasio et al., 2000), anxiety (Kimbrell et al., 1999), disgust and fear (Phillips
et al., 1998). Literature also states that TP is related to positive emotions like maternal instinct (Ranote et al., 2004), sexual arousal (Beauregard, 2001) and humour (Mobbs et al., 2003). Therefore we may argue that it is in the TP that a grand part of the emotional exchange processes happens.

4.4.2 Emotional transference, convergence or contagion

It is undeniable that other people’s characteristics have an effect on our everyday lives, after all, the human being is a social animal, subject to socially induced affect (McIntosh et al., 1994) and the sources of emotional influence can be more difficult to measure or observe than the behaviours of the ones around us. Even other people’s mood can have an impact on the way we experience the world (Kelly, 2004), and particularly in a workplace context, they can affect employees’ welfare, emotional stability and subsequent job satisfaction (Fredrickson, 2003).

Kelly (2004, p. 99), describes emotional contagion as ‘the process whereby the moods (...) of those around us influence our own emotional state’. Goleman (2000, p. 164) compares this phenomena to ‘some kind of social virus’, a part of the unseen human interaction economy that is often unnoticed. Although this social phenomenon was firstly studied following a ‘group mind’ perspective and, moreover, in the context of pathological masses behaviours (Le Bon, 1986), it was later described as an automatic and involuntary converge of emotions (Hatfield et al., 1994), with the function of what Kelly (2004) calls social adaptation. According to Barsade (2002) emotional contagion is a
process with two phases, where at first people inadvertently copy other people’s external signals of mood (e.g., tone of voice, facial expression, posture) and, at a second stage, this involuntary afferent mimicry tends to persist, leading ‘one to experience the moods that are associated with those behaviours’ (Sy et al., 2005, p. 296). Neumman and Strack (2000) conducted a research in which participants were asked to hear a philosophical manuscript recitation in two different vocal tones, happy and sad. The authors found that even the exposure to someone’s tone of voice can activate according behaviours on the hearer, although many authors support that it takes more sources of mood for effective emotional convergence (see, for example, Barsade, 2002; Gabbott and Hogg, 2001).

Appraisal theory states that emotions are involuntary and unconscious (see, for example, Hatfield et al., 1994) and that one’s emotional state is continuously being influenced by the feedback or activation from other people behavioural mimicry. The resultant emotions will then lead to a postevaluative judgement, i.e., an appraisal or evaluation of what was felt, called the ‘meaning analysis’ (Dallimore et al., 2007).

Researchers have tried to identify demographic differences on the propensity for emotional contagion but with inconclusive results so far (e.g. McColl-Kennedy et al., 2003; Hesse et al., 1999). Mattila et al., (2003) found that the employee’s gender can have an impact on consumers’ satisfaction when negative affective states are displayed. Goos and Silverman (2002) found that angry expressions are more easily recognisable on males. Simpson and Stroh (2004), however, defend that this happens not due to some genetic attribute but
because males are less worried with complying with social rules associated with femininity, like the oppression of negative emotions. Males also appear to have less capability to distinguish angry facial expressions (Doherty et al., 1995) but express anger more markedly (Kring and Emmons, 1990).

Other authors defend that it is the affiliative motivation, i.e., the longing to interact with others that determine how susceptible one is to catch other people's emotions (e.g. Chartrand et al., 2005; Lakin and Chartrand, 2003; Sinclair and Huntsinger, 2006).

Doherty (1997) asserts that it is the personal characteristics that determine one's susceptibility for emotional contagion, and designs the Emotional Contagion Scale (ECS), which is a 'measure of individual differences in susceptibility to catching the emotions of others' (Doherty, 1997, p. 149) with a high reliability (Cronbach's $\alpha = 0.90$).

In the organisational context, emotional contagion is part of the academic literature since the early 30's, when the subject started to acquire relevant academic interest, particularly in the United States (see, for example, Fisher and Hanna, 1931; Kornhauser and Sharp, 1932; Hersey, 1932; Hoppock, 1935; Roethlisberger and Dickson, 1939).

Recent research on the impact of emotions in the workplace has explored the effect of leader's mood on employees (e.g., Lipman-Blumen, 2005; Tepper, 2007; Tepper et al., 2006; Wu, 2008), like abusive supervision (Tepper, 2000, 2007) and toxic leadership (Lipman-Blumen, 2005), underlining the damaging effects that negative emotions cause, inter alia, burn-out, family work conflict, emotional exhaustion, negative affect and employee resistance (see, e.g., Duffy et al., 2002; Tepper et al., 2004, 2006, 2008; Zellars et al. 2002). Scholars also
focused on employees’ emotional impact on customers (e.g. Deane, 2007; Hennig-Thurau, 2004; Pugh, 2001), reinforcing the motto ‘service with a smile’ (Dallimore et al., 2007). One may argue that indeed, ‘service encounters are breeding grounds for emotion’ (Grace, 2007, p.271) and research has identified emotions like irritation, disappointment and pleasure as a heavy component of service satisfaction (van Dolen et al., 2001) and both valences of mood as part of service encounter appraisal (Mattila and Enz, 2002).

From the frontline employees’ perspective, it is obvious that they are subject to this contagion on a daily basis, where the possible sources of such influence are various (e.g. Dallimore et al., 2007). Academics have shown that customers’ negative emotional displays have an impact in employees, and can lead to absenteeism (Grandey et al., 2004) and stress (Dorman and Zapf, 2004). Scholars defend that the reason for customers’ negative emotional displays are tied with a need for social support or anxiety reduction (e.g. Schoefer and Diamantopoulos, 2008). Nyer (2000) stated that negative behaviours are displayed as a strategy to vent unhappiness whereas Nyer and Gopinath (2005) affirm that emotional release is the true motivation for unpleasant vocal behaviour. Apart from what causes such behaviours, it is not surprising that their consequences are not positive for the receivers.

Despite the quantity of research regarding the correlations between negative work experiences and job satisfaction (e.g. Liu et al., 2004; Schneider et al., 2005), there is a gap in the literature concerning the mediating role of employees’ susceptibility for emotional contagion between these two variables. This gap aroused the curiosity of the author; as each person is a different reality, it is interesting to explore how a singular personal dimension as the
propensity for emotional contagion can moderate the impact of customers' mood on job satisfaction. To tackle the influence of measurable personal characteristics may help to improve HRM requisites for selection and strategies for practice.

5. Conceptual Framework

Following the above mentioned, the author draws the hypothesis of a linear relation between the perception of customers' mood and employees' job satisfaction, in the sense that higher or lower levels of one variable will be associated with respective levels of the other. This correlation will be moderated by employees' propensity for emotional contagion. The author hypothesises that employees' perception of customers' mood will evoke a congruent mood state in these workers through the process of emotional contagion. This contagion will have an impact on employees' cognitive and behavioural processes, as individuals tend to evaluate and judge the environment according to the way they feel it. Consequently, job satisfaction will be highly affected by this cycle as ultimately the extent to which how satisfied employees are with their job relies on their informative, cognitive, and behavioural schemas.
6. Methodology

6.1 Hypothesis and analysis model

The present research explores a new moderator of job satisfaction in front line employees, for which the main task is to interact with customers: their propensity for emotional contagion. As previously mentioned in the literature review, satisfaction may arise from emotional experiences at work. Moreover, it was also demonstrated that human beings tend to be emotionally influenced by the emotional displays of other people. It was supported that all types of service
interaction are a form of social exchange. Therefore the following hypotheses are formulated:

Hypothesis 1: Customers’ mood and job satisfaction are positively and significantly related, in the sense that positive perceptions of customers’ mood are associated with higher levels of job satisfaction.

Hypothesis 1a: The relation between customers’ mood and job satisfaction is moderated by employees’ propensity for emotional contagion.

6.2 Methods

As this research is explanatory, the relationship between variables is tested resorting to self-administered questionnaires (Saunders et al., 2007). The use of questionnaires has several advantages, particularly in cross-sectional studies:
the collection of data is quick, economic, standardised, easy and faster to analyse and independent of the observer (Gill and Johnson, 2005). The questionnaires were administered by the researcher and, according to Saunders et al (2009), the researcher’s presence increases the likelihood of response rates. In the moment of data collection both confidentiality and anonymity were assured to participants. As in all research methods, there are disadvantages (Gray, 2009). To avoid contamination of responses, the respondents were asked to answer privately and were previously informed that there was no ‘right or wrong’ answer.

The questionnaires had attached a question answering instruction page. The use of four different questionnaires had the critical purpose of increasing the research comprehensiveness and to achieve triangulation.

The option for quantitative research is related to the nature of the study itself. Deductive approach is tightly linked with the natural sciences. This research aims to test an *a priori* theory concerning the relation between variables and, as a result, allow them to be controlled (Collis and Hussey, 2003). By proposing that job satisfaction can be affected by the perception of customers’ mood the author formulates a hypothesis based on the presupposed correlation between a dependent variable (job satisfaction) and an independent variable (customers’ mood). Furthermore, there is also the postulation that employees’ propensity for emotional contagion represents a third variable that will moderate the above mentioned relationship. This constitutes the *leitmotiv* of a deductive approach – the formulation, operationalisation and testing of an *a priori* theory. According to Torraco (2002, p.356), the deductive research should ‘serve technical / utilitarian interests for relating means and ends’. The final objective is the
recommendation of a new tool for the recruitment process of frontline employees (the emotional contagion scale) if H1a is supported. Additionally, this research being cross-sectional, the time horizon is congruent with the chosen nomothetic approach, as ‘deductive research can be quicker to complete’ (Saunders et al., 2007, p. 121).

The use of structured questionnaires, however, presents limitations. First, the researcher only gets answers to the questions that are asked (Johnson and Harris, 2002). Although this might seem obvious, there are factors that can threaten the validity of the research, as the negligence of unconsidered variables can cause obsolete conclusions or the formulation of superfluous relations. By undertaking a comprehensive and in-depth review of the relevant published works, the researcher can more assertively identify the confounding impact of extraneous variables which will consequently be considered and introduced in the questionnaires. Being the time horizon of a greater extension and the research design would include open interviews in order to assess possible overlooked variables.

Also the issue of replicability is intrinsically associated with the scientific method. The use of questionnaires represents replicable means of measurement, i.e., third parties may reproduce the study resorting to the same methodology, at other point of time. Results from different studies may be more easily compared in quantitative research, as the collection and interpretation of data is less dependent on the researcher’s analytical skills. Reliability is of vital importance in the measurement of hypothetical constructs (Miles and Banyard, 2007). Reliability has two different meanings and ways of testing, Temporal stability and Internal Consistency. Temporal stability means the consistency of
responses over time to a single instrument. Deary et al. (2004), for example, administered an intelligence test to the same sample when participants were 11 years old and later when the subjects were 67, finding a correlation of 0.66 among the measures, which suggests that intelligence is constant over time. This is also called test-retest reliability. However, as this is a cross-sectional research, test-retest is not a suitable way to measure the reliability of the measures due to time constraints. As so, the author resorts to the internal consistency method by calculating the Cronbach’s alpha, which can be simply described as ‘(…) an estimate of the correlation between the true score and the measured score’ (Miles and Banyard, 2007, p. 281), or the extent to which all the questionnaire’s items are measuring the same construct. Cronbach’s alpha was calculated for all instruments and only questionnaires with a Cronbach’s alpha superior to 0.7 were used (ranging from zero to unit) as almost all scholars agree that the ideal alpha value should never be below this score (see, for example, Clark-Carter, 2004; Kline, 2000).

6.2.1 Socio-demographic data

The first questionnaire addresses respondents’ socio-demographic data. This type of data is often present in work-related research (see, for example, Griffeth et al., 2000; Sturman, 2003).

6.2.2 Age

Age will be considered in the research regarding the fact that previous studies support its importance when tackling organisational phenomena. Thornton and Dumke (2005) concluded from their meta-analysis that older workers possess
greater problem-solving and decision making skills. Sturman (2003) and Ng and Feldman (2005) explored the relation between age and performance. Shirom et al (2008) concluded that age was negatively associated with absenteeism. As age seems to influence employees’ attitudes towards work, it is treated as a control variable in this research.

6.2.3 Gender

Gender is one of the most common control variables in work literature and research (Nelson and Burke, 2002). Its moderator influence has been explored in a vast array of relations, inter alia, between performance and work family conflict (Byron, 2005), procrastination (Steel, 2007), sexual arrestment (Willness et al., 2007) and organisational commitment (Wright and Bonett, 2002). Tamres et al. (2002) theorise that women are more able to use different coping strategies when dealing with stressors. Recent studies found that women experience more stressors than men (e.g., Rodriguez et al., 2001; Vagg et al., 2002) and the role congruity theory defends that women interpret a male dominated work environment as a stressor (Eagly and Karau, 2002; Taylor, 2006). Moreover, recent research supports that gender stereotyping still exists in organisations, and that men are more likely to receive positive performance evaluations (Goldman et al., 2006; Lyness and Heilman, 2006). The biosocial theory that supports gender disparity as one of the main sources of human behaviour (Wood and Eagly, 2002) states that such differences are a combination of physical specifications and the economical and structural features of societies. Regarding the amount of evidence that gender
differences may indeed influence research findings, this variable is also considered in the questionnaire.

6.2.4 Working hours

Working hours is a crescent topic in literature particularly in recent years, where the number of part-time workers has increased heavily (Clinebell and Clinebell, 2007). Nevertheless, there is an ambiguity in research findings. Regarding job satisfaction, there are authors who defend a null relation between this variable and working hours (e.g., Krausz et al., 2000), whereas other scholars like Conway and Briner (2002) report mixed results. The relation between working hours and organisational commitment is also dubious, as some authors find no significant differences between part-time and full-time employees (Krausz et al., 2000), whereas Jacobsen (2000), for example, reports that part-time workers enjoy higher levels of organisational commitment. Also turnover intentions were associated with working hours and while Krausz et al. (2000) defend that there is no relation between these variables, Jacobsen (2000) argues that part-time workers have more turnover intents and McBey and Karakowsky (2000) depict working hours as an important predictor variable for turnover. Moreover, where some research links part-time work with inferior levels of participation (Jacobsen, 2000) and job autonomy (Harley and Whitehouse, 2001), authors like Thorsteinson (2003) underline that working hours have no influence in such fields. Such discrepancies may be related with a variety of causes such as the methodology, sample, or reliability of the measurement instruments in the supra mentioned investigations. Nevertheless, giving the contradictory nature of the
results, working hours are considered in this research as nominal variables: part-time / full-time.

6.2.5 Type of contact with customers
The most prevalent type of contact with customer (face to face or telephone) is a control variable for various reasons. First, based on the emotional contagion literature, the author presupposes that employees who deal personally with customers are exposed to more sources of contagion, i.e., body language, tone of voice and speech. However, the two very distinct organisational scenarios require attention to the nature of the jobs. The respondents that represent the face to face category work in a job centre and deal with people that necessitate their help, i.e., unemployed individuals that require the interaction with these participants. The telephone category consists of sales people that contact potential customers who are not always keen to get their phone calls. These employees work under pressure, targets and constant negative responses from the people they contact, which will naturally increase their levels of work related stress (Deane, 2007; Singh, 2000; Taylor et al, 2002;). So, although these employees are only exposed to two sources of emotional contagion (tone of voice and speech), the nature of their function justifies the exploration of this variable, which is also treated as nominal.

6.2.6. Work experience
According to the literature, work experience is one of the predictors of the work environment quality (Babin and Boles, 1996). Scholars like Rhoades et al. (2002) argue that it is concurrent with job satisfaction and Knight et al (2006)
defend that it is tightly linked with career intention, which arises from the emotional experiences of the job. As one may assume that experience leads to a greater neutrality and knowledge about how to manage customer interaction, this variable is also considered ranging from ‘less than one year’ to ‘more than 9 years’.

An employee who has worked for a long time with customers will presumably possess greater ‘personal defence’ strategies to deal with adverse situations. Although there are no two identical situations, experience equals learning in almost all areas of life and particularly in a work context, it gives the preparation to more clearly evaluate each situation and behave accordingly.

6.2.7 Job satisfaction
To measure this construct, the author resorts to a well known and often used set of 3 items, with a Cronbach’s $\alpha = 0.87$, taken from the Michigan Organizational Assessment Questionnaire (Cook et al., 1981): ‘All in all, I am satisfied with my job’, ‘In general, I don’t like my job’ (reversed) and ‘In general I like working here’.

However, the literature about job satisfaction, the dependant variable (DV), often relates it with five dimensions: organisational commitment (see, for example, Griffin et al., 2010; Markovits et al., 2007), job involvement (Moynihan and Pandey, 2007; Reid et al., 2008), job routineness (Wright and Davis, 2003; Yoo and Brooks, 2005), self-efficacy (Molinari and Monserud, 2009; Wang and Netemeyer, 2002) and role clarity (Male and Male, 2003, Whitaker et al., 2007). As so, these dimensions were also measured resorting to other authors’ work. Organisational commitment was measured with Meyer’s et al. (1993, p. 544) set
of three items, with a Cronbach’s $\alpha = 0.80$: ‘I would not leave my organization right now because I have a sense of obligation to the people in it’, ‘this organization deserves my loyalty’ and ‘I owe a great deal to my organization’. From Saleh and Hosek (1976, p. 218) the author took the items for job involvement: ‘the major satisfaction in my life comes from my job’, ‘the most important things I do are involved with my job’ and ‘I enjoy my work more than anything else I do’. The Cronbach’s $\alpha = 0.76$.

Job routineness and self-efficacy were measured with single items taken from Moynihan and Pandey (2007), which are respectively: ‘people here do the same job in the same way every day’ and ‘I can successfully perform any task assigned to me on my current job’. Finally, role clarity was measured with three items adapted from Rizzo et al (1970): ‘my job has clear, planned goals and objectives’, ‘I feel certain about how much authority I have’, ‘I know exactly what is expected of me’, Cronbach’s $\alpha = 0.81$. In total, the job satisfaction questionnaire consisted of 14 items measured with a 6 point Lickert scale, ranging from ‘1 - strongly disagree’ to ‘6 - strongly agree’. The choice of a 6 point scale was to strategically avoid central tendency. A pilot test with this combination of items was realised and the reliability was extremely satisfactory (Cronbach’s $\alpha = 0.915$). The difference of the alpha’s value if some of the items were deleted was not relevant, therefore the job satisfaction questionnaire maintained the 14 initial items for data collection (refer to appendix 1).
6.2.8. Emotional contagion

This construct was measured with Doherty’s (1997, p. 134) emotional contagion scale, which can be described as ‘(...) a short, reliable, unidimensional measure of individual differences in susceptibility to emotional contagion’. This scale consists of 15 items that are measured with 4 frequency of occurrence indicators (1 never, 2 rarely, 3 often, 4 always). The choice of this scale lies mainly in two factors: its high reliability (Cronbach’s $\alpha = 0.90$) and its simplicity. The 15 items are grouped in five sub groups or dimensions of emotion: Happiness (items 1, 2, and 11); Love (items 6, 9 and 12); Fear (items 8, 13 and 15); Anger (items 5, 7 and 10) and Sadness (items 1, 4 and 14). The questions regard an individual’s more customary reactions to day-to-day situations, for example ‘being with a happy person picks me up when I’m feeling down’ (happiness item), ‘I love when the one I love holds me close’ (love item), ‘listening to the shrill screams of a terrified child in a dentist’s waiting room makes me feel nervous’ (fear item), ‘it irritates me to be around angry people’ (anger item), and ‘I get filled with sorrow when people talk about the death of their loved ones’ (sadness item). The use of a simple language and common situations as examples for attitude measurement makes this instrument very attractive and easy to both understand and to administer.

6.2.9 Perception of customers’ mood

As far as the author’s knowledge is concerned, there is no published instrument to measure this construct. Given this absence in the available literature, the
author designed an instrument which consists of a 7 items questionnaire comprising 3 dimensions:

1- the employees' attitudes regarding the customer: 'customers are always polite', customers are always in a good mood', and 'customers are always friendly', 2 - the employees' appraisal about service encounters: 'service interactions are always smooth and easy' and 'I find it very pleasant to interact with customers', and 3 - the employees evaluation regarding the effect that customers have in their life 'customers have a positive effect on how I feel about myself' and 'customers make me feel proud about my work'.

This combination of different dimensions increases content validity, i.e. 'the degree to which a measure covers the full range of behaviour of the ability being measured' (Clark-Carter, 2004, p. 31). Concurrent validity implies the comparison of a new measure's validity against the validity of a pre-existent measure. As a measure for employees' perception of customers' mood was not found by the researcher, it was not possible to measure concurrent validity. A pilot test was conducted with 10 participants who work directly with customers, all at the University of Bolton. Four participants work in the reception of the university's Sports Centre, two participants work in the cafeteria, three are librarians and one works in financial services. The pilot questionnaire allowed the author to infer the facial validity of the measure, which means the extent to which participants understand the instrument in use. For this purpose, the respondents were asked about the perceptibility of the measure and the attractiveness of the questionnaire layout. The entire sample stated that the questionnaire was fairly easy and simple to both understand and fill.
The reliability of the measurement instrument was assessed resorting to Cronbach’s alpha (refer to appendix 2). Initially the alpha was 0.67. The author made the statistical analysis ‘Cronbach’s alpha if item deleted’, which revealed that if the item ‘customers have a positive effect on how I feel about myself’ was deleted, the alpha value would increase to 0.72. Therefore this item was deleted and the instrument reliability was guaranteed.

The items were measured with a Lickert’s scale of agreement, ranging from 1 ‘Strongly disagree’, to 6 ‘Strongly agree’. Once again, the absence of a central point was strategic in order to avoid central tendency.

The final questionnaire had a total of 4 pages (see appendix 3) which, according to Saunders (2007), is within the ideal number of pages (range from 1 to 8). The rationale of this ideal number lies in not exhausting the respondents. According to the author, after the eighth page responses will start to be inattentive and automatic which does not provide the researcher with valuable information. The first page was an informed consent letter, explaining briefly that the research was part of a Masters programme and that the data was totally anonymous and confidential. The researcher’s contact information was also provided for any possible question or clarification participants might need.

7. Ethics

The importance of ethics in research started to congregate attention from all fields of knowledge after the Nuremberg Trials, where atrocities in concentration camps, allegedly in the name of scientific development, were documented (Lincon and Cannella, 2009). Nowadays it is a major concern to conduct all
types of research following the established ethical principles, that are guided by the doctrines of primum non nocere, or nonmaleficence (cause no harm) and preferably doing good (Saunders, 2009).

Regarding the University of Bolton’s Code of Ethical Standards in Research Involving Human Participants (2006), and also Saunders et al. (2009) recommendations about ethics on all research phases, the following measures were applied before, during, and after the research process:

Formulation of the research topic: the topic was created under the approval of a tutor, and only after her agreement the research design was formulated. The topic was devised with the main preoccupation of causing no harm to participants.

Research Design and Gaining Access: Organisations’ members were contacted when it was convenient to them. Participants were informed about the research topic, objectives, methods, and of their right to withdrawal from the study at any time. If any modification was to be done in the future, both parts agreed that their participation will be renegotiated. The right to quality research was discussed, regarding participants’ and researcher’s time limitations and the best strategies to overcome such boundaries. Anonymity, confidentiality, and privacy were assured.

Data collection: The questionnaires were anonymous. Participants’ names were numerically codified. When requested, participants had prior access to the
questionnaires. Participants were also informed of their right to decline responding to any question (Easterby-Smith et al., 2002).

Questionnaires had an information sheet containing the objective of the study, the participants’ rights, the researcher’s name and contacts, and the contact details of the Department’s Research Ethics Officer so that participants were able to report any events that might violate their integrity and welfare. Voluntary informed consent, in writing, was not asked to participants as their anonymity could be threatened. Participants’ deception is not applicable in this research.

Data processing and storage: the researcher complied with the Data Protection Act (1998) and the Data Protection Policy (University of Bolton, 2006), with the following precautions:

Participants’ confidentiality and anonymity was maintained at all times and by all means; data from questionnaires was kept on a password protected file, and only one person beside the researcher knew the password. Participants’ names and related data were numerically codified. Physical records were kept locked and would be destroyed as soon as possible. Participants were offered access to the research results. Researcher’s conclusions will be showed to interested participants before the dissertation’s submission (Informant verification).

The Research Ethics Check List – Form RE1 was filled, signed, and attached to the research proposal.
8. Organisational background and sample

8.1 Organisation 1
This organisation is a job centre located in the North West of England. Participants’ main task is to advise and follow the progress on unemployed individuals who seek their professional directions. Participants stated that the job climate has seen visible alterations since the present crisis begun. Where previously their main clients were younger people of lower educational levels and poor socio-economic origins, nowadays there is no way to describe a standard job seeker. From teachers to consultants and from all age groups, unemployed people are a layer of society that is growing in both number and diversity. Everyday participants have to deal with opposite situations and individuals in really despair. ‘It can be destroying sometimes’, a participant stated, ‘people are starting to lose hope, particularly when you look around and realise that even education is not enough anymore to guarantee you a better life’. But even for respondents this economical climate is starting to show an impact. Days after the questionnaires’ collection there was a two day strike following the increasing numbers of redundancies and also low salaries.

8.2 Organisation 2
This organisation is a multinational company with offices all around the globe. It operates as a business intelligence provider, from whom other companies can purchase a vast array of services that go from private consultancy to reports and statistics on various business areas and locations. The sample for this research works in the Manchester’s office and its main task is to contact
companies offering these services. Participants interact with customers by telephone trying to sell products and services with a target of £30,000 worth of sales each month. ‘It’s almost impossible you know’ a participant confessed, ‘I mean, you never know but I’ve been working here for almost six months and my best achievement was £26,000. This is crazy, honestly, I never go home on time to have tea with my wife and the pressure is just incredible...’.

Furthermore, the person on the other side of the line is not always polite or welcoming to their calls. It is not unusual for employees to be mistreated by those potential clients and to juggle that fact with constant pressure from their supervisors to achieve such high targets in this climate of recession is not easy.

8.3 Sample description

A total of 80 questionnaires were distributed and 59 were returned completed. In organisation 1, 25 respondents filled the questionnaires, 76% (N=19) were females and 24% (N=6) were males. The most prevalent age group among this sample ranged from 25 to 45, representing a total of 48% of the sample (N=12), followed by 32% in the age group of 46 to 55 (N=8). The number of staff working part-time and full-time was almost similar (13 and 12, respectively).

In organisation 2, 34 questionnaires were collected. 62% of respondents were female and 38% were male. 68% of participants (N=23) belonged to the age group situated between 25 and 35 years old and 88% work full-time (N=30).
Sample Size

![Pie chart showing sample size by method: Face to Face and Telephone.]

![Bar chart showing age distribution: 18-24, 25-35, 36-45, 46-65, 66-65, 66-100 years old.]

Age
9. Findings and Analysis

Before starting the data analysis and hypothesis testing, the reliability of the two scales adapted from other authors was once more verified with the research data. The Emotional Contagion Scale maintained its high reliability formerly reported by Doherty (1997). In the present research the Cronbach’s alpha is still very satisfactory ($\alpha = .834$). To delete an item would not result in a significant reliability rising. The item that could have more impact in the alpha value if deleted (Item 5 ‘I clench my jaws and my shoulders get tight when I see the
angry faces on the news') would not bring a noteworthy difference in terms of reliability (difference = 0.006) and therefore was retained (refer to appendix 4).

In the Job Satisfaction Scale reliability analysis results were different (refer to appendix 5). If the item 10 ('People here do the same job every day), correspondent to job routineness was deleted, the alpha value would increase to .914. Moreover, this item was negatively correlated with the others. Consequently it was deleted and not considered as an indicator of the variable in study.

Furthermore, in order to obtain a single variable from the retained items, each variable was computed by calculating the mean of its constituent items. Consequently, three new single variables were formed ('Perception of Customers' Mood', 'Emotional Contagion' and 'Job Satisfaction') and data was ready for the analysis process.

9.1 Descriptive Statistics

Perception of Customers' mood
As presented in the graphics infra, it is clear that the perception of customers' mood is more positive amongst the second group (telephone), with around 30% of the subjects rating customers' mood between $\bar{x} = 3.5$ and $\bar{x} = 4.5$ (ranging from one to six). From the group of people who deals with customers face to face, 20% rates it in $\bar{x} = 2.83$ and 16% in $\bar{x} = 3.33$. Although for both groups the perception of customers mood was low, it was definitely lower for the first one.
9.1.1 Emotional Contagion

The results of the emotional contagion scale were higher for the second group. The data is based on the mean of the scale items, ranging from 1 to 4. As demonstrated in the graphics below, 56% of the first group scored between $\bar{x} = 2.40$ to $\bar{x} = 2.53$, 24% scored between $\bar{x} = 0.87$ and $\bar{x} = 2.13$, and 20% between $\bar{x} = 2.60$ and $\bar{x} = 3.27$. In the second group the scores are considerably higher and also more dispersed, with 35.2% scoring from $\bar{x} = 2.60$ to $\bar{x} = 2.80$, 14.7% scoring $\bar{x} = 2.87$ and 26.5% scoring between $\bar{x} = 2.87$ and $\bar{x} = 3.53$. 

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9.1.2 Job Satisfaction

In a scale from 1 to 6, 48% of the first group scored between $\bar{x} = 3.31$ and $\bar{x} = 3.62$. 17.7% of the second group scored higher, from $\bar{x} = 3.85$ to $\bar{x} = 4.08$. Although 29.4% of the second group had a job satisfaction score $\bar{x} \leq 3$ compared to the 24% of the first group, the higher score in the face to face assemblage was $\bar{x} = 4$ (4%) whereas 35.1% of the telephone group scored
from $\bar{x} = 4$ to $\bar{x} = 5.23$. The scores were higher and more dispersed among the participants from organisation 2.
The table above supports that the mentioned means’ differences between the two groups on the three variables are statistically significant and therefore, the previously proposed comparative case study analysis is pertinent. There is a significant difference between groups in the variable job satisfaction ($t = -1.542$, $df = 57$, $p = .0645$), Emotional Contagion ($t = -3.38$, $df = 57$, $p = 0.005$), and Employee's Perception of Customers’ mood ($t = -2.81$, $df = 57$, $p = 0.0035$).

Hypothesis 1: ‘Customers’ mood and job satisfaction are positively and significantly related, in the sense that positive perceptions of customers’ mood are associated with higher levels of job satisfaction’.

In order to test hypothesis 1 the author started to explore the existence of a significant correlation between the independent and the criterion variables. Being both treated as scales, the author resorts to the statistical parametric test Pearson Product-Moment Correlation Coefficient, commonly referred to as PMCC or Pearson’s r.
There are 3 requirements that should not be violated to test a statistical correlation with this tool:

1- Both variables should be scales. When variables were computed, they were treated as scales.

2- Neither distribution should be highly skewed. The two histograms below show that neither variable’s distribution is highly skewed.

3- The scatter plot must not depict a curvilinear relation between the variables. The scatter plot below also shows a non curvilinear relation between variables.

Histograms

![Employee's perception of customer mood](image1)

![Job Satisfaction](image2)
Being the requirements fulfilled, the Pearson’s correlation was calculated (refer to appendix 6). The results show that there is a significant positive correlation between employees’ perception of customers’ mood and job satisfaction for the first group ($r = .546, n = 25, p < 0.0005$, two-tailed), and an even stronger positive correlation for the second group ($r = .718, n = 34, p < 0.0005$, two-tailed).

Although hypothesis 1 was apparently supported by the results, a deeper analysis regarding the control variables reveals some interesting results: age and gender showed no major statistical influence in this relation but in both groups, for employees who work in a part-time regime, the relation between their perception of customers’ mood and job satisfaction has no statistical significance.
A more profound analysis was performed in order to explore more dimensions of the correlation between the independent variable (IV) and the dependent variable (DV). The linear regression test allows sharpening how much the criterion variable (job satisfaction) is explained by the independent variable (perception of customers’ mood), to quantify the quality of the model to explain the linearity of the relation between the variables, and to infer the accuracy of the model to explain the linearity of the relation between the variables in the universe.

The referred model also comprises a set of assumptions that were not violated. Such assumptions are described in detail on appendix 7.

For both groups’ analysis none assumption was violated and the linear regression was effectuated to investigate the validity and robustness of H1 (refer to appendix 8 for group 1 and to appendix 9 for group 2). The table below shows that, on average, the first group has a negative perception of customers’ mood ($\bar{x} = 2.83$) whereas the second group has a more positive, although not very high, perception of customers’ mood ($\bar{x} = 3.4$). Both the face to face and the telephone groups have positive (although median) levels of job satisfaction ($\bar{x} = 3.25$, $\bar{x} = 3.60$, respectively).

<table>
<thead>
<tr>
<th>Employee’s perception of customer mood</th>
<th>Job Satisfaction</th>
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<tbody>
<tr>
<td>Most prevalent type of contact with customers</td>
<td>Mean</td>
</tr>
<tr>
<td>Face to Face</td>
<td>2.83</td>
</tr>
<tr>
<td>Telephone</td>
<td>3.40</td>
</tr>
</tbody>
</table>
In both analysis the proposed model regarding a correlation between the two variables has shown to be positively significant (Face to Face: $F_{(1,23)} = 9.766, p = 0.05$; Telephone: $F_{(1,32)} = 34.078, p = 0.000$), i.e., to be valid in terms of its generalisation to the population. For the face to face condition, the perception of customers’ mood explains 29.8% of the variance in job satisfaction. This means that job satisfaction as a whole depends on their perception of customers’ mood in 29.8%. The telephone groups’ perception of customers’ mood explains a very strong and high percentage of 51.6% of their job satisfaction. Moreover, for each unit that is changed in the IV, 0.587 of the DV changes for the face to face group and 0.813 changes for the telephone group. These are very high values that prove the influence of customers’ mood in the job satisfaction for both conditions. Therefore we accept H1.

For the telephone group the success of their job mostly depends on the relations they are able to create with customers (for posterior sales). As so, if the customers’ mood is negative, the impact on possible sales will be vast as customers' bad moods are typically a sign of a not willingness to do business, although this might occasionally not happen. Furthermore, for these participants all that the job comprises is talking to customers and do sales. For reaching the targets at the end of the month these employees need to establish cordial relations and sell services and products. Despite few and punctual interactions with managers and co-workers, potential customers are the only source of interaction they have during their working hours. Therefore, negative customer moods result in lower levels of job satisfaction and, in parallel, positive
perceptions of customers’ moods result in higher levels of job satisfaction for this group.

For the face to face participants, customers’ mood has a lower percentage of impact on employees’ job satisfaction. However, 29.8% of variance on the DV explained by the IV is still a strong value that should not be disregarded. For this group, the nature of the job is totally different. Dealing with negative moods is probably a constant of participants’ day to day interactions. This type of ‘customers’ are actually unemployed people looking for help. Unemployment is a condition that does not necessarily augment or contribute to positive moods. Moreover, this group of people not only work with customers’ by advising, interviewing and diagnosing further opportunities for CV enhancement, they also work with institutions and potential employers, trying to create new partnerships for the job centre. Clerical and administrative functions are also a percentage of their tasks, therefore the contact with customers has less impact on their job satisfaction as dealing with customers is not all this group does in the workplace.

For both groups H1 was accepted; the perception of customers’ mood was shown to have a strong impact on job satisfaction. This finding is consistent with the mood-as-information theory which defends that moods will influence cognitive and behavioural processes through their informative effects (e.g. Schwarz and Clore, 2003). As so, people tend to recall the moods associated with experiences, contexts and situations in order to gather information that permits the formulation of cognitive and behavioural schemas. A positive
perception of customers’ mood results in a more positive cognitive appraisal of the job itself increasing job satisfaction, whereas a more negative discernment of such moods will create a lower evaluation of the job.

However, another basic premise of this theory, as previously described in the theoretical background, is that one present affective state will evoke an evaluation about the whole environment. People in a good mood or surrounded by good moods tend therefore to evaluate more positively the environment they are in. This phenomenon may present a limitation for this research as participants evaluate contexts according to their affective states, even if such affective states are not directly related with the research questions. Consequently, a person who is experiencing a bad mood that might have uncountable sources of provenience will tend to more negatively rate their perceptions of customers’ mood and job satisfaction, in all the likelihood of an individual in a good mood will tend to be more benevolent in his / her appraisals. Moreover, as many authors affirm (see, for example, George and Zhou, 2007; Watson, 2000) these affective states that may vary in both valence (positive or negative), and arousal (high or low) do not occur in parallel and one can experience negative and positive moods alternately. In fact: ‘In the course of the day, a few days or a week, to the extent that someone experiences both kinds of moods at different times, he or she will also experience differential cognitive tuning effects’ (George and Zhou, 2007, p. 606). As so, the responses from participants could have been influenced by the cognitive impact of certain and punctual affective states. This factor could have been avoided with a test retest.
This finding is also congruent with the previously described conceptions that workplace negative experiences are related with job satisfaction (e.g., Elias, 2004) and deepens them by focusing on a particular workplace experience, which is the perception of customers' mood.

Hypothesis 1a: The relation between customers' mood and job satisfaction is moderated by employees' propensity for emotional contagion.

In order to test H1a the author resorted to the statistical test Multiple Linear regression. To avoid technical collinearity, i.e. a high correlation between the predictors (perception of customers' mood and propensity for emotional contagion), the author centred the variables by subtracting to each variable the value of its mean. The term of interaction was consequently obtained by multiplying the centred variables (IV and moderator).

As it can be noted on the table infra, for the telephone group the moderator role of employees' propensity for emotional contagion was not statistically significant ($F(3,30) = 11.825; \ p=.000$) between their perception of customers mood and job satisfaction (sig.<0.05).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>18,065</td>
<td>3</td>
<td>6,022</td>
<td>11,825</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>15,277</td>
<td>30</td>
<td>.509</td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td>33,343</td>
<td>33</td>
<td></td>
<td></td>
<td></td>
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</table>

a. Predictors: (Constant), pmc_emscentred, ECSCentrada, PCMCentred
b. Dependent Variable: Job Satisfaction

57
Although it was previously shown that customers’ mood have a big impact on their job satisfaction, this relation is not moderated by the phenomenon of emotional contagion. This fact can be explained by several reasons:

These workers are not exposed to all the sources of emotional contagion. They do not see the customer, the body language, the facial expression. Although the research conducted by Neumann and Strack (2000) sustains that vocal tones can also result on a behavioural feedback from the recipient, who will consequently activate corresponding moods, the present investigation supports the theory that more sources are needed for the emotional contagion process. This finding is consistent with the supra mentioned non verbal components of emotional contagion (proxemic, paralinguistic and kinesics) to which this group of participants is not exposed (Gabbott and Hogg, 2001; Hess et al., 2000; Sundaram and Webster, 2000).

Moreover, for these individuals, the customer is a mean to reach an end (sales and targets). They do not necessarily relate to the customers’ negative / positive moods and are neither aware of the reasons for that mood. In fact, when contacted by a sales person, a person can display a certain type of mood (e.g., politeness versus arrogance) for no particular reason, and sales people tend to know that – as they are contacted by other sales people as well.

In the face to face group, oppositely, customers’ negative moods can be easily understood and comprehended by the employee, and to be sympathetic with the customer is a *sine qua non* condition for successfully performing their job. In the telephone group, sympathy with the customers’ mood is not a determinant for sales. The duration of the contacts are also smaller than in the face to face
group, where an employee can follow a customers' situation and progress for more than six months. This factor can also explain why there is no emotional contagion involved between IV and DV for the telephone group, even though many authors describe the emotional contagion process as automatic and involuntary (see, for example, Doherty, 1997). As so, the not statistically significance of employees' propensity for emotional contagion as a moderator in the telephone group is easily comprehended and supported by previous research.

However, for the face to face group, the levels of propensity for emotional contagion showed to have a big impact on the linear relation between the IV and the DV (see tables below). For each unit of the moderator, the variance between DV and IV changes in parallel 0.954, an unquestionable high value highly close to the unit. We can also note that emotional contagion, alone, has no principal effect on job satisfaction ($p = 0.248, p>0.05$), whereas the interaction of the IV and the moderator has a principal and strong effect ($p = 0.02, p<0.05$).

The moderator role is positively significant and can be generalised to the universe ($F_{(3,21)} = 6.220; p = 0.003 (p<0.05)$). This model has also proved to be strongly significant, as the interaction of the variables ‘employees’ propensity for emotional contagion’ and ‘perception of customers’ mood’ explains per se 39.5% of the variation on the levels of job satisfaction. This is a very high result in social sciences statistical research. We accept H1a for the face to face group.
### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.686</td>
<td>.470</td>
<td>.395</td>
<td>.49202</td>
<td>1.963</td>
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</tbody>
</table>

a. Predictors: (Constant), PCMCentrado_EMCCentred, EMCCentred, PerceptionCustomersMoodcentrado

b. Dependent Variable: Job Satisfaction

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
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<td>1,506</td>
<td>6,220</td>
<td>.003*</td>
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<td></td>
<td></td>
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</table>

### coefficients

<table>
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<tr>
<th>Model</th>
<th>Unstand. Coefficient</th>
<th>Stand. Coefficient</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.267</td>
<td>.099</td>
<td>33,11</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>EMCCentred</td>
<td>.253</td>
<td>.213</td>
<td>.193</td>
<td>1,189</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>PerceptionCustomersMoodcentred</td>
<td>.406</td>
<td>.187</td>
<td>.377</td>
<td>2,167</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>PCMCentrado_EMCCentred</td>
<td>.954</td>
<td>.381</td>
<td>.444</td>
<td>2,507</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>0</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Job Satisfaction

b. Dependent Variable: Job Satisfaction
Furthermore, the graphic below presents some interesting facts related to H1a. We can see that when levels of job satisfaction are negative (blue and green lines), there is not a linear relation between the IV and the DV. However, when emotional contagion levels are positive (yellow line), an increase in the IV will be accompanied by an augment in the DV. The relation between both variables is therefore amplified in terms of intensity by the moderator effects of employees’ propensity for emotional contagion. This does not suggest or prove a causality effect (which was not the purpose of the present investigation), but one may firmly state that the relation between predictor and criterion is definitely influenced by the moderator variable. Furthermore, an interesting detail is that the impact of the moderator arises in both positive and negative levels of perception of customers’ mood / job satisfaction. This suggests that not only employees who have a negative perception of customers will have a lower job satisfaction, but also that employees’ with better perceptions of customers’ mood will have higher levels of job satisfaction.
10. Conclusion

The role of emotions, personality and affective traits at work has proved in previous research to have an impact on work dynamics. In this investigation emotional economy in a work scenario was studied with a focus on the dyadic interaction between employees and customers. Previous academic works were therefore extended and this field of knowledge enriched by the following means: 1) the specific influence of the perception of customers' mood on job satisfaction was investigated; 2) a reconciliation of different theoretical backgrounds regarding the sources of emotional contagion was tackled by resorting to two different work contexts where the interaction with customers
(sources of contagion) occurs in dissimilar ways (face to face and telephone); 3) addition to a developing volume of literature by exploring the moderator role of emotional contagion between frontline employees’ perception of customers’ mood and their job satisfaction; 4) addition to a growing body of literature regarding job attitudes of part-time workers 5) practical applications by the final consideration and exploration of an additional tool to be used on the selection of service employees (the emotional contagion scale).

The results support that indeed emotional experiences at work have an impact on job satisfaction. Being job satisfaction related to so many dimensions of work, inter alia, performance (Bowling, 2007), organisational commitment (Testa, 2001), intra organisational behaviour (Bradford et al., 2009), and organisational citizenship behaviour (Organ et al., 2006; Podsakoff et al., 2000), it is of determinant importance to explore its dynamics and dimensions. The author found that, independently of the type of interaction, customers’ mood has an impact on job satisfaction by explaining a high percentage of its variance for both groups. This finding suggests that how an employee perceives customers will influence how he/she perceives and evaluates the job itself. It is obviously difficult (if not impossible) for an organisation to change the way customers treat employees. However, some strategies can be implemented to smooth the strength of this external influence. Training and a culture of support could and should be part of every job that involves contact with customers. Training for such employees should not be limited to topics like customer service. As this research shows, a good work environment requires a healthy management of
emotions therefore training should also tackle vital areas for staff welfare like emotional intelligence and resilience.

Interestingly, the results show that the correlation between customers’ mood and job satisfaction is not significant amongst part-time workers. One may argue that for this group of workers, matters of organisational involvement, purposes of being employed, and even the time of exposure to consumers’ mood may explain the absence of a relation between the two variables. However, the results could have been better tackled if the volatile nature of part-time positions was explored because these ‘employees vary widely in terms of the individual characteristics they possess, the job duties they are responsible’ and even ‘different life situations and preferences may lead an individual to seek out part-time employment’ (Maynard et al., 2005, p. 146).

Furthermore, previous research has identified other facts that moderated the impact of mood on organisations. George and Zouh (2007), for example, showed that the impact of affective states on creativity is moderated by supervisor developmental feedback, interactional justice, and trust whereas Tsai et al (2007) found that the relation between positive moods and task performance is moderated by helping and support (for and from others), self-efficacy and task persistence. One may argue that, for both groups, not only emotional contagion should have been studied but other variables like organisational culture, leadership, training and team support could have also been taken into account as possible moderators. However, this study being cross sectional with a constrained time frame, there was no possibility to include further variables in the equation. An amplification of the used research methods
would have also enriched the investigation. Open interviews, for example, would have allowed the collection of different points of view and experiences that could and certainly would have unfolded a series of new research questions and hypothesis.

We found that, for the telephone group, emotional contagion was not a statistically significant moderator between the perception of customers’ mood and job satisfaction. This is an interesting finding which is consistent with most of the theories on the contagion process, which trumpet the necessity of visual contact for the emotional transference to happen. Nevertheless, it seems that this is also a field that needs enlargement in terms of research. Do not blind people, for example, have the propensity to catch the moods of others in the same way that employees interacting through telephone should have? Then why do the results indicate that emotional contagion is not a moderator for group 2? Are there other parts of the brain rather than the temporal pole that are activated when the contagion process occurs only through vocal tones? Further non participant observation and laboratorial investigation need to take place to achieve a greater understanding of this social and neuropsychological phenomenon.

Contrastingly, for the face to face group results show that emotional contagion moderates the linear relation between job satisfaction and perception of customers’ mood, these variables being either positive or negative. In some work contexts where the customer relations are not always so positive (e.g., sales, police) lower levels of emotional contagion can be useful to both protect the employee from the surrounding negativity and to protect the customer from a ‘negatively contaminated’ employee. For employees who work in predictable
positive scenarios of customer interaction, higher levels of emotional contagion can be positive for their job satisfaction as the feedback loop will result in positive judgments about the environment. Emotional contagion, therefore, is not necessarily an undesirable personal characteristic of front line employees, as it can increase job satisfaction levels when the surrounding moods are constructive. In this study, the evaluations of customers’ mood were somehow low for both groups as both work circumstances tend not to be joyful ones. The analysis of another case study where the work environment and principally the customers’ mood were predictably positive could yield interesting results. Moreover, and as it was previously mentioned, people responses tend to be influenced by their present affective state (mood as information theory). This research highly relied on participants’ self evaluations which could be contaminated by their present moods. Feasible ways to avoid this common method possible bias are, for example, to resort to other sources of measurement and responses or to perform the same tests at different points of time (test retest) (Podsakoff et al., 2003).

The author considers the findings of the present study as valuable and somehow a starting point for additional research- particularly by teasing the established theories of emotional contagion regarding its sources of provenience. This is still an infant field of research, as in fact the inclusion of overall emotional variables in work related academic investigation started to gain more interest only about two decades ago, with the work of Daniel Goleman on emotional intelligence (see, for example, Goleman, 2000).
present work shows that, indeed, each individual is different and although the reality might be presented similarly for all employees, it is their personal characteristics (particularly focusing on their levels of emotional contagion) that will dictate the way he/she behaves, perceives and evaluates the environment. The author also believes that the utility of the emotional contagion scale as a selection tool was proved, considering the above mentioned results. Subject to the job’s nature and specifications, human resource professionals and front line managers could discuss and agree to what levels of propensity for contagion are ideal for each job position and use this scale as one more selection tool because, in terms of selection methods, *melius est abundare quam deficere*.

11. Recommendations

Based of the above said, prolific directions for future research would include the assessment of the variables in studies resorting to more than one type of measurement instrument. Open interviews, for example, although threatened by the possibility of subjectivity, often unclove a vast array of new research topics, questions and hypothesis. The replication of this study in work environments where both the valence and arousal of customers’ mood were predictably higher could lead to some interesting and complimentary results.

Additionally, and for the practical purposes of the use of the emotional contagion scale, it would definitely enrich organisational knowledge to address the following topics:
Is the propensity for emotional contagion a trait (fixed, permanent and immutable over time) or is it a state (that varies in different scenarios or from specific situations)? The first question could be explored with a longitudinal study by applying the scale in different points of time and the second one with laboratorial experiments where the independent variables that could cause, mediate, and moderate the levels of emotional contagion were controlled by the researcher. The same question is extendable to the perception of customers’ mood. How does an employee join different experiences with different customers to form a single and general opinion? Is it dependant on the latest interactions or do employees congregate all experiences and form one opinion that is consistent over time to avoid cognitive dissonances? Moreover, the exploration of the contagion process without visual contact would open doors in this field of research in the same way that the inclusion of other moderators in the explored relation would permit a better understanding of the phenomenon. Furthermore, and due to the increasing reliance on teams, it would be interesting to explore how positive and negative moods amongst team members complement each other and may influence the relation between perception of customers’ mood and job satisfaction. As this study was cross-sectional, one cannot unambiguously trumpet causality between the dependant and independent variables. This can be addressed in further studies with a longer time horizon.
The enlargement of the number of participants would benefit matters of generalisability and validity.

Despite the now exposed, the author stalwartly believes that this study is a starting point for future research that, by addressing the recommendations and limitations notwithstanding, could hopefully add to the existing knowledge on the field and amplify the practical applications of academic research.
# Appendix 1

Reliability statistics for the Job Satisfaction questionnaire

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach's Alpha Based on Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.915</td>
<td>.912</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item-Total Statistics</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Squared Multiple Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job sat1</td>
<td>47.10</td>
<td>159.211</td>
<td>.812</td>
<td>.</td>
<td>.901</td>
</tr>
<tr>
<td>Job sat 2</td>
<td>47.20</td>
<td>158.178</td>
<td>.774</td>
<td>.</td>
<td>.903</td>
</tr>
<tr>
<td>Job sat 3</td>
<td>47.00</td>
<td>158.889</td>
<td>.810</td>
<td>.</td>
<td>.901</td>
</tr>
<tr>
<td>Job inv1</td>
<td>48.20</td>
<td>171.511</td>
<td>.651</td>
<td>.</td>
<td>.908</td>
</tr>
<tr>
<td>Job inv 2</td>
<td>49.10</td>
<td>172.100</td>
<td>.846</td>
<td>.</td>
<td>.905</td>
</tr>
<tr>
<td>Job inv 3</td>
<td>48.90</td>
<td>168.767</td>
<td>.761</td>
<td>.</td>
<td>.905</td>
</tr>
<tr>
<td>Org com 1</td>
<td>47.70</td>
<td>150.233</td>
<td>.882</td>
<td>.</td>
<td>.898</td>
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<tr>
<td>Org com 2</td>
<td>48.00</td>
<td>159.556</td>
<td>.887</td>
<td>.</td>
<td>.899</td>
</tr>
<tr>
<td>Org com 3</td>
<td>48.00</td>
<td>164.667</td>
<td>.783</td>
<td>.</td>
<td>.903</td>
</tr>
<tr>
<td>Self effic</td>
<td>46.80</td>
<td>193.733</td>
<td>-.130</td>
<td>.</td>
<td>.933</td>
</tr>
<tr>
<td>Role clar1</td>
<td>47.10</td>
<td>162.989</td>
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<td>.</td>
<td>.906</td>
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<td>Role clar2</td>
<td>47.10</td>
<td>178.544</td>
<td>.300</td>
<td>.</td>
<td>.921</td>
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<td>Role clar3</td>
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<td>154.444</td>
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<td>.</td>
<td>.899</td>
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</table>
Appendix 2

Reliability statistics for the Perception of Customers' Mood questionnaire

### Reliability: Perception of Customers' Mood Scale

#### Case Processing Summary

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<tr>
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<th>N</th>
<th>%</th>
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</thead>
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<tr>
<td>Excluded</td>
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<td>0.0</td>
</tr>
<tr>
<td>Total</td>
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</table>

* Listwise deletion based on all variables in the procedure.

#### Reliability Statistics

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<td>Alpha</td>
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#### Item Total Statistics

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<tr>
<th>Service Interactions are always smooth and easy</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find it very pleasant to interact with customers</td>
<td>21.00</td>
<td>21.423</td>
<td>.391</td>
<td>.841</td>
</tr>
<tr>
<td>Customers are always polite</td>
<td>22.50</td>
<td>17.833</td>
<td>.503</td>
<td>.597</td>
</tr>
<tr>
<td>Customers are always in a good mood</td>
<td>22.70</td>
<td>16.578</td>
<td>.602</td>
<td>.561</td>
</tr>
<tr>
<td>Customers are always friendly</td>
<td>22.50</td>
<td>17.822</td>
<td>.734</td>
<td>.548</td>
</tr>
<tr>
<td>Customers have a positive effect on how I feel about myself</td>
<td>22.00</td>
<td>21.556</td>
<td>.114</td>
<td>.722</td>
</tr>
<tr>
<td>Customers make me feel proud about my work</td>
<td>22.10</td>
<td>18.433</td>
<td>.248</td>
<td>.687</td>
</tr>
</tbody>
</table>
Appendix 3

Final Questionnaire

The following questions have multiple choice answers. Please chose the one that best describes your situation (one answer per question)

1. Gender
   - Male
   - Female

2. Your age
   - 18-24
   - 25-35
   - 36-45
   - 45-55
   - 56-65
   - More than 65

3. Working Hours
   - Part-Time
   - Full-Time

4. Most prevalent type of contact with Customers
   - Face to face
   - By telephone
   - By E-mail

5. For how long have you been performing your actual job?
   - Less than 1 year
   - 1-4 years
   - 5-8 years
   - More than 9 years
To what extent do you agree with each of the following affirmations?

1. How do you perceive your customers? Please indicate below how much you do agree with each of the following affirmations.

<table>
<thead>
<tr>
<th>Service interactions are always smooth and easy</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Often disagree</th>
<th>Often agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I find it very pleasant to interact with customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers are always polite</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers are always in a good mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers are always friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers make me feel proud about my work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How often do the following statements apply to you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Someone I’m talking with begins to cry, I get teary-eyed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being with a happy person picks me up when I’m feeling down</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When someone smiles warmly at me, I smile back and feel warm inside</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get filled with sorrow when people talk about the death of their loved ones</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I clench my jaws and my shoulders get tight when I see the angry faces on the news</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I look into the eyes of the one I love, my mind is filled with thoughts of romance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It irritates me to be around angry people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching the fearful faces of victims on the news makes me try to imagine how they might be feeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I melt when the one I love holds me close</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I tense when overhearing an angry quarrel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being around happy people fills my mind with happy thoughts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I sense my body responding when the one I love touches me</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I notice myself getting tense when I’m around people who are stressed out</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I cry at sad movies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to the shrill screams of a terrified child in a dentist’s waiting room makes me feel nervous</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To what extent do you agree with each of the following affirmations?

<table>
<thead>
<tr>
<th>Affirmation</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Often disagree</th>
<th>Often agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>All in all, I am satisfied with my job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>In general, I don’t like my job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>In general I like working here</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The most important things I do are involved with my job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I enjoy my work more than anything else I do</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>The major satisfaction in my life comes from my job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>This organization deserves my loyalty</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I would not leave my organization right now because I have a sense of obligation to the people in it</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I owe a great deal to my organization</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I can successfully perform any task assigned to me on my current job</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My job has clear, planned goals and objectives</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I feel certain about how much authority I have</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I know exactly what is expected of me</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix 4

Reliability statistics for the Emotional Contagion Scale

### Reliability Statistics for the Emotional Contagion Scale

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.834</td>
<td>15</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Emotional Contagion 1</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>37.12</td>
<td>39.865</td>
<td>.195</td>
<td>.839</td>
<td></td>
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<tr>
<td>Emotional Contagion 2</td>
<td>36.47</td>
<td>37.012</td>
<td>.476</td>
<td>.823</td>
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<tr>
<td>Emotional Contagion 3</td>
<td>36.24</td>
<td>38.977</td>
<td>.377</td>
<td>.828</td>
</tr>
<tr>
<td>Emotional Contagion 4</td>
<td>36.36</td>
<td>37.337</td>
<td>.430</td>
<td>.826</td>
</tr>
<tr>
<td>Emotional Contagion 5</td>
<td>36.98</td>
<td>40.189</td>
<td>.164</td>
<td>.840</td>
</tr>
<tr>
<td>Emotional Contagion 6</td>
<td>36.63</td>
<td>37.721</td>
<td>.390</td>
<td>.828</td>
</tr>
<tr>
<td>Emotional Contagion 7</td>
<td>36.51</td>
<td>35.668</td>
<td>.563</td>
<td>.817</td>
</tr>
<tr>
<td>Emotional Contagion 8</td>
<td>36.63</td>
<td>34.755</td>
<td>.638</td>
<td>.811</td>
</tr>
<tr>
<td>Emotional Contagion 9</td>
<td>37.07</td>
<td>36.823</td>
<td>.454</td>
<td>.824</td>
</tr>
<tr>
<td>Emotional Contagion 10</td>
<td>36.53</td>
<td>36.219</td>
<td>.570</td>
<td>.817</td>
</tr>
<tr>
<td>Emotional Contagion 11</td>
<td>36.63</td>
<td>36.548</td>
<td>.573</td>
<td>.817</td>
</tr>
<tr>
<td>Emotional Contagion 12</td>
<td>36.59</td>
<td>37.590</td>
<td>.438</td>
<td>.825</td>
</tr>
<tr>
<td>Emotional Contagion 13</td>
<td>36.37</td>
<td>35.962</td>
<td>.572</td>
<td>.816</td>
</tr>
<tr>
<td>Emotional Contagion 14</td>
<td>36.54</td>
<td>36.804</td>
<td>.468</td>
<td>.823</td>
</tr>
<tr>
<td>Emotional Contagion 15</td>
<td>36.66</td>
<td>37.193</td>
<td>.494</td>
<td>.822</td>
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</tbody>
</table>
Appendix 5

Reliability statistics for the Job Satisfaction questionnaire

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.897</td>
<td>14</td>
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</tbody>
</table>

### Item-Total Statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Corrected Item-Total Correlation</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction 1</td>
<td>44.69</td>
<td>109.595</td>
<td>.698</td>
<td>.885</td>
</tr>
<tr>
<td>Job Satisfaction 2</td>
<td>44.27</td>
<td>114.684</td>
<td>.554</td>
<td>.892</td>
</tr>
<tr>
<td>Job Satisfaction 3</td>
<td>44.31</td>
<td>109.629</td>
<td>.786</td>
<td>.882</td>
</tr>
<tr>
<td>Job Satisfaction 4</td>
<td>45.14</td>
<td>114.740</td>
<td>.608</td>
<td>.889</td>
</tr>
<tr>
<td>Job Satisfaction 5</td>
<td>45.66</td>
<td>120.193</td>
<td>.449</td>
<td>.895</td>
</tr>
<tr>
<td>Job Satisfaction 6</td>
<td>45.46</td>
<td>116.701</td>
<td>.589</td>
<td>.890</td>
</tr>
<tr>
<td>Job Satisfaction 7</td>
<td>44.66</td>
<td>110.538</td>
<td>.757</td>
<td>.883</td>
</tr>
<tr>
<td>Job Satisfaction 8</td>
<td>44.93</td>
<td>110.719</td>
<td>.637</td>
<td>.888</td>
</tr>
<tr>
<td>Job Satisfaction 9</td>
<td>44.86</td>
<td>114.533</td>
<td>.684</td>
<td>.887</td>
</tr>
<tr>
<td>Job Satisfaction 10</td>
<td>44.88</td>
<td>130.348</td>
<td>-.016</td>
<td>.914</td>
</tr>
<tr>
<td>Job Satisfaction 11</td>
<td>44.39</td>
<td>113.552</td>
<td>.534</td>
<td>.893</td>
</tr>
<tr>
<td>Job Satisfaction 12</td>
<td>44.53</td>
<td>110.702</td>
<td>.704</td>
<td>.885</td>
</tr>
<tr>
<td>Job Satisfaction 13</td>
<td>44.54</td>
<td>114.770</td>
<td>.565</td>
<td>.891</td>
</tr>
<tr>
<td>Job Satisfaction 14</td>
<td>44.54</td>
<td>109.046</td>
<td>.726</td>
<td>.884</td>
</tr>
</tbody>
</table>
Appendix 6

Pearson Correlation

<table>
<thead>
<tr>
<th>Most prevalent type of contact with customers</th>
<th>Employee's perception of customer mood</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to Face Employee's perception</td>
<td>Pearson Correlation: 1.546(**)</td>
<td>N: 25</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction Employee's perception</td>
<td>Pearson Correlation: .546(**)</td>
<td>N: 25</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>Telephone Employee's perception</td>
<td>Pearson Correlation: 1.718(**)</td>
<td>N: 34</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction Employee's perception</td>
<td>Pearson Correlation: .718(**)</td>
<td>N: 34</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
Appendix 7

Assumptions of the linear regression

1 – The relationship between DV and VI must be linear. This can be confirmed in the dispersion diagram.

2 - The residuals cannot not be autocorrelated. This assumption can be tested with the Durbin-Watson test, in which the values range from 0 to 4. Values close to 0 mean a positive autocorrelation, whereas values close to 4 indicate a negative autocorrelation. The ideal value must be close to 2.

3 – Homoscedasticity refers to the constant variance of the residuals. This is an extremely important assumption, as its violation might invalidate all the statistical analysis. It is desirable that the distribution of the errors’ standard deviation of the dependent variable is independent of the value of the independent variable. This assumption can be tested resorting to the scatterplot.

4 – Normality of the errors’ distribution. This can be verified by the histogram, which should not be highly skewed.
Appendix 8

Linear Regression, Face to face group

### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>3.2492</td>
<td>.63249</td>
<td>25</td>
</tr>
<tr>
<td>Employee's perception of customer mood</td>
<td>2.8267</td>
<td>.58823</td>
<td>25</td>
</tr>
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</table>

### Correlations

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction</th>
<th>Employee's perception of customer mood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>1.000</td>
<td>.546</td>
</tr>
<tr>
<td>Employee's perception of customer mood</td>
<td>.546</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td></td>
<td>.002</td>
</tr>
<tr>
<td>Employee's perception of customer mood</td>
<td>.002</td>
<td>.002</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>25, 25</td>
<td></td>
</tr>
<tr>
<td>Employee's perception of customer mood</td>
<td>25, 25</td>
<td></td>
</tr>
</tbody>
</table>

### Variables Entered/Removed

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>Employee's perception of customer mood</td>
<td></td>
<td>Enter</td>
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</table>

a. All requested variables entered.
b. Dependent Variable: Job Satisfaction

### Model Summary

80
<table>
<thead>
<tr>
<th>Variables Entered/Removeda</th>
</tr>
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<tbody>
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<td>Model</td>
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</tbody>
</table>

a. All requested variables entered.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
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<tbody>
<tr>
<td>1</td>
<td>.546</td>
<td>.298</td>
<td>.268</td>
<td>.54131</td>
<td>1.915</td>
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</table>

a. Predictors: (Constant), Employee's perception of customer mood
b. Dependent Variable: Job Satisfaction

<table>
<thead>
<tr>
<th>ANOVAa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
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<td>1 Regression</td>
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<tr>
<td>Residual</td>
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<tr>
<td>Total</td>
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</table>

a. Predictors: (Constant), Employee's perception of customer mood
b. Dependent Variable: Job Satisfaction

<table>
<thead>
<tr>
<th>Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>Employee's perception of customer mood</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Job Satisfaction

<table>
<thead>
<tr>
<th>Collinearity Diagnosticsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
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</table>

a. Dependent Variable: Job Satisfaction
### Residuals Statistics

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>2.2748</td>
<td>3.7423</td>
<td>3.2492</td>
<td>.34530</td>
<td>25</td>
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<tr>
<td>Residual</td>
<td>-1.27478</td>
<td>.88652</td>
<td>.00000</td>
<td>.52991</td>
<td>25</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-2.822</td>
<td>1.428</td>
<td>.000</td>
<td>1.000</td>
<td>25</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-2.355</td>
<td>1.638</td>
<td>.000</td>
<td>.979</td>
<td>25</td>
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</tbody>
</table>

a. Dependent Variable: Job Satisfaction

### Histogram

**Dependent Variable: Job Satisfaction**

- Mean = 1.26E-16
- Std. Dev = 0.979
- N = 25

---

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### Appendix 9

**Linear Regression, Telephone group**

#### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction</td>
<td>3.6018</td>
<td>1.00518</td>
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<tr>
<td>Employee's perception of customer mood</td>
<td>3.4020</td>
<td>.88774</td>
<td>34</td>
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</table>

#### Correlations

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction</th>
<th>Employee's perception of customer mood</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>1.000</td>
<td>.718</td>
</tr>
<tr>
<td></td>
<td>.718</td>
<td>1.000</td>
</tr>
<tr>
<td><strong>Sig. (1-tailed)</strong></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>34</td>
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</table>

#### Variables Entered/Removed

<table>
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<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Employee's perception of customer mood</td>
<td></td>
<td>Enter</td>
</tr>
</tbody>
</table>

*a. All requested variables entered.*

*b. Dependent Variable: Job Satisfaction*
### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>0.718</td>
<td>0.516</td>
<td>0.501</td>
<td>0.71035</td>
<td>1.820</td>
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</tbody>
</table>

a. Predictors: (Constant), Employee's perception of customer mood
b. Dependent Variable: Job Satisfaction

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>1</td>
<td>17,196</td>
<td>1</td>
<td>17,196</td>
<td>34.078</td>
<td>0.000*</td>
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<tr>
<td></td>
<td>Residual</td>
<td>32</td>
<td>0.505</td>
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<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>33</td>
<td>33.343</td>
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</table>

a. Predictors: (Constant), Employee's perception of customer mood
b. Dependent Variable: Job Satisfaction

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.836</td>
<td>.489</td>
<td>1.708</td>
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<tr>
<td></td>
<td>Employee's perception of customer mood</td>
<td>.813</td>
<td>.139</td>
<td>.718</td>
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a. Dependent Variable: Job Satisfaction
Collinearity Diagnostics*

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimension</th>
<th>Eigenvalue</th>
<th>Condition Index</th>
<th>Variance Proportions (Constant)</th>
<th>Employee's perception of customer mood</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1,969</td>
<td>1,000</td>
<td>.02</td>
<td>.02</td>
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<tr>
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<td>.031</td>
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<td>.98</td>
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</table>

a. Dependent Variable: Job Satisfaction

Residuals Statistics*

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>1,7842</td>
<td>4,7657</td>
<td>3,6018</td>
<td>.72186</td>
<td>34</td>
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<tr>
<td>Residual</td>
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<td>1,74700</td>
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<td>.69951</td>
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<tr>
<td>Std. Predicted Value</td>
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<td>1,612</td>
<td>0</td>
<td>1,000</td>
<td>34</td>
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<tr>
<td>Std. Residual</td>
<td>-1,955</td>
<td>2,459</td>
<td>0</td>
<td>.985</td>
<td>34</td>
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</tbody>
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a. Dependent Variable: Job Satisfaction
References


influences on social cognition and behavior”, Psychology Press, New York (pp. 65–84)


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Data Protection Act 1998
<http://www.ico.gov.uk/what_we_cover/data_protection.aspx>
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