ENGAGEROCKET

Survey Validation

Mission

Here at EngageRocket, we've run thousands of surveys for organizations across Asia, with the mission of empowering human resource (HR) practitioners with a tool to lead change in their company culture.

Through our survey analytics platform, we can truly understand an intangible asset that many people organizations tend to miss — engagement. The questions used in our platform's recommended surveys have been considered through active research in organization science, which allowed us to build a framework for understanding what drives employees to be engaged in their workplaces.

This whitepaper illustrates how we selected our 10 drivers of engagement with regards to our structured literature review, pre-test and pilot testing, before building our final instrument to measure employee engagement.

Introduction

The origins of the engagement construct

Engagement has been a well studied motivational concept since 1990, when William Kahn first introduced it as “the harnessing of organization members’ selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances”.

The statistical relationship between engaged employees and positive business outcomes has been explored through several studies since Kahn’s seminal work; Gallup conducted its first annual “State of the American Workplace” study in 1997 through the work of Dr. Jim Harter. The published report found that organizations within the top decile of engagement outperform their peers by 147% in earnings per share, and have a 90% better growth trend than their competitors.

Other researchers have constructed more analytical models of engagements; William Macey advances a strong conceptual framework for understanding engagement as a psychological construct, antecedent to a state of behavioural engagement, defined either through discretionary effort or specific roles, in “The Meaning of Employee Engagement”.

Though researchers have differing operationalisations of the engagement construct, it is generally well understood that motivated employees bring success to their teams and are less likely to see turnover and attrition.

Research at EngageRocket

In the research phase of our engagement platform, we carried out several qualitative and quantitative studies on the current literature on workplace commitment. Emergent data from our literature review was analysed using several statistical techniques, to scrutinise relationships between observed and latent variables.

We aimed to build a questionnaire that was a valid measure of the level of engagement within the organization. We also aimed for the engagement constructs to be highly correlated with actual business outcomes, and thus we discarded any articles about engagement unrelated to actionable insights. The next few sections will discuss our methodology to validate our findings in depth.

Analysis

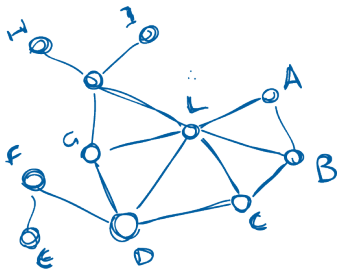
Literature Review

Questionnaires are built deductively — first through conceptualising variables, which are later operationalised as one or more questions in the survey instrument. For us, an 'engaged employee' was conceptualised as an employee who is involved in, enthusiastic about and committed to their work and workplace.

This section describes the structured literature review that was conducted, building on this conceptualisation of an engaged employee. First, we aimed to collect as many academic discussions on the topic and synthesise it into a framework for our own engagement instrument. Our queries to the academic database focused on ideas of workplace commitment, human resource development and organisational development. Research that was found to be uncorrelated with measurable actionable issues for management was removed, resulting in a final database consisting of over 500 peer-reviewed articles from various journals. Finally, we conducted several preliminary methods to arrange and sift through the various data sources.

Preliminary analysis

The first method we employed was content analysis, a research method to gain systematic and objective means of quantifying any phenomena. This allows us to make replicable and valid inferences from research towards their context, building a representation of facts in a structure for a practical guide to action. Through this analysis, we yielded a conceptual system to organise categories within engagement.



Concept mapping, a technique originally developed by Novak in 1984, was also used to develop a graphic representation of data points uncovered through content analysis. This allowed us to structure semantic connections between different ideas and to ascertain whether certain ideas or behaviours are antecedent or consequential. Through this graphic representation, we were able to present a conceptual model for engagement.

Question Bank

Additionally, we conducted a review of published survey instruments measuring employee engagement. Through this review of the engagement constructs, we assembled a question bank of 198 items aimed at measuring for engagement, after eliminating for duplicates. A list of references can be found at the Appendix.[1]

Instrument Design

Building our Employee Engagement Instrument

Through our concept mapping and analysis of content from the literature of workplace commitment, we found 10 constructs to be measuring issues that were actionable for managers and supervisors. Each construct consists of multiple items measuring perception of different elements of the workplace — autonomy, growth, clear expectations, recognition, relationships at work, manager support, etc.

To build a strong instrument for estimating engagement based on survey responses of these constructs, we needed to select items to include in our Employee Engagement Instrument which were predictive of specific constructs. Thus, we set out on our goal to systematically sample all content that is relevant to the target construct. Through this process, a total of 42 non-redundant items were generated from the question bank.

Validity checks

Following research in construct measurement theory, we established a content adequacy test to determine the validity of the selected items. Through this test, items were eliminated that did not discriminate between drivers, or have an average score that was not sufficiently different from other drivers. A detailed explanation can be found in the Appendix [2].

Pre-Testing

Survey questions have to be reviewed for comprehension and thus have to be pre-tested on a sample of respondents, to ensure the choice of words or sequencing of the questions do not create misinterpretation.

Participants

We conducted pre-testing by recruiting 20 job incumbents from Singapore. These participants were selected to be representative of the demographic profile of the population of Singapore. All the participants were Singaporean and were ethnically diverse in proportion to the actual proportions from the 2010 Singapore census. The participants were equally represented in terms of gender. All participants were also proficient in English.

All participants were also representative of different industries in Singapore, such as manufacturing, banking, shipping, hospitality, F&B, automotive, etc. The participants' education was also similarly profiled, with an equal proportion of O/N Levels certificate holders, A Levels/Diploma certificate holders and Bachelor's Degree and above certificate holders.

Procedure

In small focus groups, participants underwent cognitive interviews where they verbalised their thought processes while answering our beta survey of 42 survey items. Probes were utilised to detect misunderstandings and assessing question sensitivity, such as:

Could you tell me in your own words what that question means to you?
Were there questions asked that seemed similar to each other?
Were there any questions that you felt uncomfortable answering?

Summaries of respondents' verbal reports were reviewed to reveal both general strategies for answering survey questions and difficulties with particular questions. Following the interviews, a debriefing was conducted for respondents to discuss how they answered or interpreted specific questions. After the pre-test, 6 survey items were dropped based on whether the participants had any difficulties in any of the 3 criteria: comprehension, similarity or discomfort.

Pilot Testing

Pilot tests are used as a validating step for researchers to understand how a larger sample size of respondents react to the survey under full test conditions.

Participants

For the pilot test, 500 job incumbents from Singapore were recruited. These participants were selected to be representative of the demographic profile of the population of Singapore. All the participants were Singaporean and were ethnically diverse in proportion to the actual proportions from the 2010 Singapore census. The sample was composed of 270 males and 230 females, with an average age of 35 within the age group of 24 to 60. All the participants were also proficient in English.

The participants' education was profiled with a proportion of 10% O/N Levels certificate holders, 60% A Levels/Diploma certificate holders and 30% Bachelor's Degree and above certificate holders. All participants were also representative of different industries in Singapore, such as manufacturing, banking, shipping, hospitality, F&B, automotive, etc.

Procedure

The data was collected in a cross-sectional study across employees in a variety of industries. The survey was comprised of the 36 items retained from the pre-testing analyses. Employees rated the degree to which they felt that they experienced the level of engagement represented in each of the items. Responses were made on a Likert-direction scale with the anchors being strongly agree (5) and strongly disagree (1).

Results

Each of the 10 constructs are shown to have a high internal consistency (Cronbach's Alpha > 0.74), signifying that the measures possess adequate internal consistency reliability. Through the data obtained from the pilot study, items that did not have a corrected item-to-total subscale correlations above 0.50 were deleted.

Correlations among the items that structure each subscale (Intra-Subscale Correlations) were systematically higher than items of different subscales (Inter-Subscale Correlations). We also eliminated items which did not match our hypothesis about which dimension they belonged to, leading to a scale with reduced items.

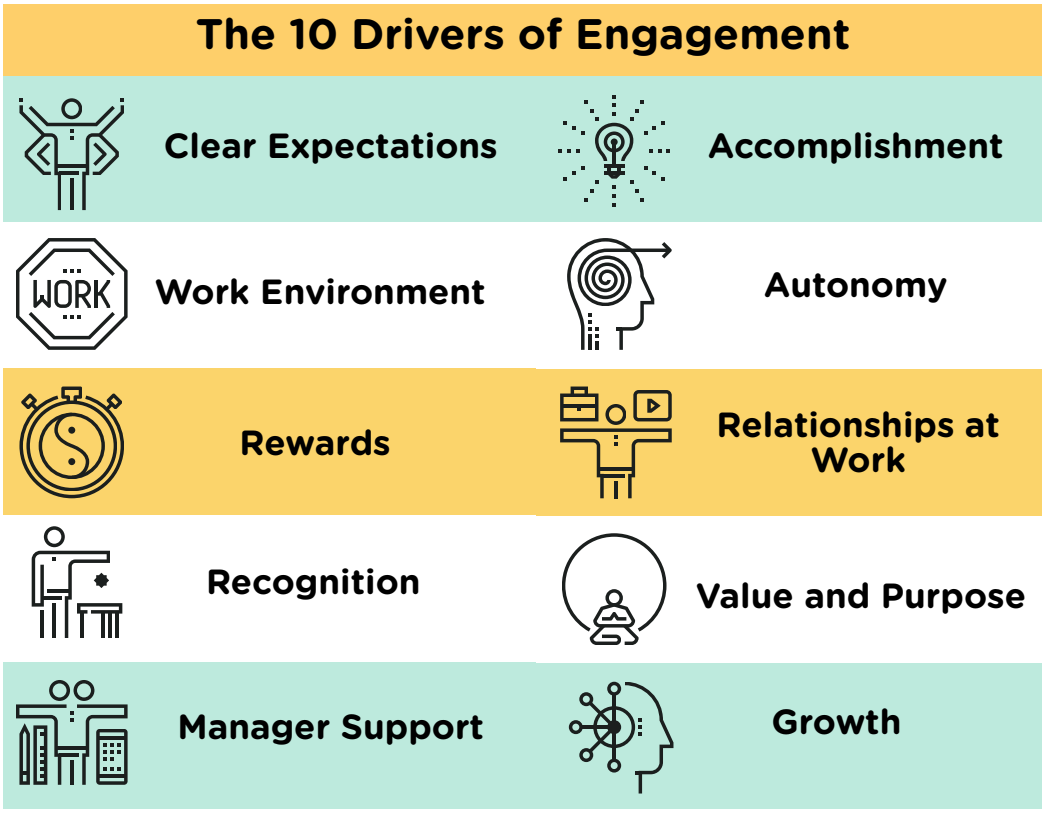
Structural Analysis

We performed a confirmatory factor analysis with latent variable structural equation modelling, using maximum likelihood estimation. We found that the overall model fit for a second-order structure with 10 constructs as latent indicators of a higher order engagement factor was very strong.

Additional details can be found in the Appendix [3].

The 10 Drivers of Engagement

Through our analysis in deconstructing the factors that impact levels of engagement, we derived 10 distinct drivers of engagement.



Researchers in the field of organisational behaviour have produced several definitions of engagement, from which different sub-topics have emerged that have been thoroughly studied for decades. As such, engagement has been studied as a psychological state with focuses on emotions, moods or individual commitments; as a performance construct focused on observable behaviour and personal dispositions or in some balance between these models. As such, there is much literature on diverse topics such as dynamic psychological states, individual influencing traits and organisational behaviour.

We address various conceptualisations of engagement in the following section that validate the drivers we have selected as most actionable for management.

Accomplishment

William Kahn's 1990 qualitative research on engagement is one of the most cited works in the engagement literature. Based on his model, one of the main antecedents of engagement at work is psychological meaningfulness; the sense of return on investments of the self in performance at one's role.

In a similar vein, Josh Bersin (2015) identifies meaningful work as one of the the five elements that drive engagement in his article "Becoming Irresistible: A New Model for Employee Engagement".

Direct research supporting this idea that the experienced meaningfulness of work roles results in individuals making greater personal investments in the pursuit of organizational goals comes from Brown & Leigh (1996) and May et al. (2004).

Fairlie (2011) compared a number of meaningful work characteristics to other work characteristics as correlates and predictors of employee engagement. The findings showed that jobs that offer a sense of accomplishment was one of the work characteristics that were categorized as meaningful, and that such characteristics accounted for a substantive amount of variation in employee engagement.

Autonomy

The Demand-Control theory (Karasek & Theorell, 1990) has made a case for the enabling role of autonomy in engagement. According to this model, people have the ability to think and solve problems, and want to have the opportunity to make choices and decisions. In other words, they want to have some input into the process of achieving the outcomes for which they will be held accountable. Hence, employees' perceived capacity to influence decisions that affect their work and to exercise professional autonomy is critical element of employee engagement (Gagné & Bhave, 2011; Albrecht, 2010).

The very process of making a decision has a durable impact on employees' experience of participating in organizational life and the responsibility they take for its outcomes (Leiter & Maslach, 2003). Participative decision making is a foundation of job enrichment strategies (Hackman, 1986) because of its power to engender commitment as well as its capacity to make good use of knowledge and experience within a group of colleagues (Leiter & Maslach, 2003).

Active participation in organizational decision making has been consistently found to be related to higher levels of efficacy and lower levels of exhaustion (Cherniss, 1980; Lee & Ashforth, 1993; Leiter, 1992). When employees are encouraged to participate in decision-making, they tend to be more engaged, invest more effort in their work, and feel less strain (Gagné & Bhave, 2011).

In a study conducted on 279 frontline employees in a hotel and restaurant in Southern Norway, Slatten et al. (2011) examined the relationship between job autonomy and employee engagement. The results showed that job autonomy is an antecedent of employee engagement, which in turn leads to employees' innovative behaviour.

Yong et al. (2013) studied the antecedents of employee engagement such as job autonomy, strategic attention, role benefit and goal setting in private sector in Malaysia. Data collected from employees working in telecommunication, finance, IT, property and plantation revealed that job autonomy has a significant effect on employee engagement.

Clear Expectations

One level of engagement revolves around job clarity and helping an employee understand what is expected of him or her at work (Buckingham & Coffman, 1999). If an employee has been shown how what one does fits with the company, has a clearly communicated set of fundamental responsibilities, and understands not only what he or she needs to do, employee engagement will follow. Research around the contribution of setting clear expectations and providing resources to employee engagement support this idea (Harter et al., 2002)

In the burnout literature, researchers have found that greater role conflict is strongly and positively associated with greater exhaustion (Cordes & Dougherty, 1993; Maslach et al., 1996). Contradictory demands interfere with people's capacity to set priorities or to commit themselves fully to their work. Studies have also examined role ambiguity – the absence of direction in work. Generally, role ambiguity is also associated with greater burnout, and lower levels of engagement. (Cordes & Dougherty, 1993; Maslach et al., 1996).

Environment

The workplace environment is fundamental to having engaged employees (Shuck, Rocco, & Albornoz, 2010). Employees need to be provided with adequate physical, social, and organizational resources that enable them to reduce their job demands, to function effectively in their work role, and to stimulate their own personal development (Shaufeli & Bakker, 2004).

Direct research supporting the idea that the physical work environment is a key driver of employee engagement comes from Robinson (2003) and Bijaya et al. (2011).

Fairness of Rewards

Fairness is the extent to which decisions at work are perceived as being fair and people are treated with respect. It communicates respect and confirms people's self-worth. In turn, mutual respect between people is fundamental to a shared sense of community (Leiter & Maslach, 2003).

Fairness is also central to equity theory (Walster et al., 1973), which posits that perceptions of equity or inequity are based on people's determination of the balance between their inputs, such as time, effort, and expertise, and outputs, such as rewards and recognition (Leiter & Maslach, 2003). Research based on this theoretical framework has found that a perceived inequity is predictive of burnout (e.g. Bakker et al., 2000; Schaufeli et al., 1996).

Fairness has also materialised as a critical factor in administrative leadership (e.g. White, 1987). Employees who perceive their supervisors as being both fair and supportive are less susceptible to burnout, and are more accepting of major organizational change (Leiter & Harvie, 1997, 1998).

In a study using snowball sampling of 310 samples in the Jordanian Hotel industry, Padmakar et al. (2011) showed that perceptions of both procedural and distributive justice had an effect on employee engagement.

Research in Asia has identified organizational justice (Kumar & Swetha, 2011) and equal opportunities and fair treatment (Bijaya et al., 2011) as drivers of employee engagement.

Growth

Authors have theorised that opportunities for learning (Czarnowsky, 2008) and talent management systems (Hughes & Rog, 2008) that involve employee and organizational development initiatives are antecedents to engagement.

Training and career development is another an important dimension in the process of engaging employees because it helps the employee to concentrate on a focused work dimension (Paradise, 2009). When an employee undergoes training and learning development programmes, his/her confidence builds up in the area of training, and this motivates them to be more engaged in their job.

Alderfer (1972) suggested that when an organisation offers employees a chance to grow, it is equivalent to rewarding people. He emphasized that He emphasised that "satisfaction of growth needs depend on a person finding the opportunity to be what he or she is most fully and become what he or she can."

Fairlie (2011) compared a number of meaningful work characteristics to other work characteristics as correlates and predictors of employee engagement. One of the work characteristics that were categorized as meaningful was work that instigates one's belief

in achieving their highest career goals within their organization, and it was found to be positively correlated to employee engagement.

Lai & Lee (2015) carried out a study among a convenience sample of 400 employees working at three to five star hotels in Penang, Malaysia found that training and development have a significant relationship with employee engagement.

In the recent literature, other researchers corroborating the direct link between employee perceptions of growth and development to employee engagement in Asian contexts include Dharmendra and Naveen (2013), Bijaya et al. (2011), Abu Khalifeh and Som (2013)

Manager Support

Kahn (1990) describes one of the key antecedents of engagement, the experience of psychological safety, as feeling able to invest oneself without fear of negative consequences. He postulated that employees experience psychological safety, in part, as a result of supportive management.

Perceived organizational support, a concept that reflects the type of support Kahn (1990) discussed, develops through employee interactions with organizational agents such as managers and reflects employees' beliefs concerning the extent to which the organization they work for values their contributions and looks after their well-being (Eisenberger et al., 1986; Rich et al., 2010).

Supportive, emotionally positive workplace climates (Dollard & Bakker, 2010) have been operationalized to include the perception of supportive management. Relevant research by Kroth and Keeler (2009) and Plakhotnik et al. (2011) have corroborated the role of the manager in creating a supportive climate.

May et al. (2004) found that supervisor relations were positively linked to psychological safety and engagement. These findings are in line with research showing positive relationships between perceptions of various forms of support in an organization and conceptualizations of job engagement (Bakker et al., 2005; Nembhard & Edmondson, 2006; Saks, 2006)

Saks' (2005) study indicated that perceived organizational support predicts both job and organization engagement. He posited that the reason for this positive relationship is the norm of reciprocity, which refers to the extent to which employees are likely to respond to the support and care from the organization through trying to perform well on their duties and responsibilities at work.

In Asia, other researchers have also substantiated the positive impact of perceptions of manager trust and integrity (Dharmendra & Naveen, 2013) and perceived supervisor support (Padmakar et al., 2011; Kumar & Swetha, 2011) on employee engagement.

Mission & Purpose

Values, mission and purpose are at the core of people's relationship with their work. It encompasses the ideals and motivations that originally attracted them to the job. It is the motivating connection between the employee and the workplace that goes beyond the utilitarian exchange of time for money or advancement (Leiter & Maslach, 2003).

Contributing to a meaningful personal goal is a powerful incentive for individuals. When this work contributes as well to the organizational mission, people may be rewarded with additional opportunities for meaningful work. As such, mutually compatible values

produce a self-perpetuating dynamic that supports engagement (Leiter & Maslach, 2003).

However, when there is a values conflict on the job, it can undermine people's engagement with work. The greater the gap between individual and organizational values, the more often staff members find themselves making a trade-off between work they want to do and work they have to do (Leiter & Maslach, 2003).

The dominant role of value conflicts in the burnout and engagement process is indicated by the associated distress and the lengths to which people go to reduce the associated tension. Research has found that a conflict in values is related to all three dimensions of burnout (Leiter & Harvie, 1997).

According to the 2014 global workforce study conducted by Towers Watson, the second highest determinant of employee engagement is goals and objectives, which refers to an understanding about how one's job contributes to the goals of the organization.

Research conducted in Asia by Dharmendra and Naveen (2013) also found that clear contribution of employee performance to the organization's performance leads to employee engagement.

Recognition

The recognition area of work-life addresses the extent to which a lack of recognition from service recipients, colleagues, managers, and external stakeholders devalues both the work and the workers, and is closely associated with feelings of inefficacy (Cordes & Dougherty, 1993; Maslach et al., 1996).

Consistency in the recognition dimension between the person and the job means that there are opportunities for intrinsic satisfaction (Richardsen et al., 1992). Intrinsic rewards (such as pride in doing something of importance and doing it well) can be just as critical as extrinsic rewards, if not more so (Leiter & Maslach, 2003). What keeps work involving for most people is the pleasure and satisfaction they experience with the day-to-day flow of work that is going well (Leiter, 1992). Recognition from others is the source of an enjoyable workflow, which supports both psychological well-being and physical health (Leiter & Maslach, 2003).

In testing a model of engagement through surveying 102 employees in a variety of jobs and organizations, Saks (2006) found that job characteristics, such as rewards and recognitions, were predictive of engagement.

In an Asian context, Kumar and Swetha (2011) found that rewards and recognition are a positive antecedent of employee engagement.

Relationships at Work

Leiter and Maslach (2003) put forth that community refers the overall quality of social interaction at work, including issues of conflict, mutual support, closeness, and the capacity to work as a team. People thrive in community and function best when they share praise, comfort, happiness, and humour with people they like and respect. In addition to emotional exchange and instrumental assistance, this kind of social support

reaffirms a person's membership in a group with a shared sense of values (Leiter & Maslach, 2003).

Kahn (1990) found that supportive and trusting interpersonal relationships, as well as a supportive team, promote employee engagement. An open and supportive environment is essential for employees to feel safe in the workplace and engage fully with their responsibility. Supportive environments enable members to experiment and try new things and even fail without fear of the consequences (Kahn, 1990).

Employing empirical research of Kahn's model, May et al. (2004) found that relationships in the workplace had a significant impact on meaningfulness, one of the key components of engagement.

Locke and Taylor (1990) focused on the relatedness needs that individuals possess, and argued that individuals who have positive interpersonal interactions with their co-workers should also experience greater meaning in their work. Thus, if an employee has good relationships with his co-workers, his work engagement is expected to be high.

In a similar vein, studies by Shaufeli and Bakker (2004) as well as Shaufeli, et al. (2009) provided empirical support for the relationships between engagement and social support from co-workers and supervisors (Rana et al., 2003).

Co-worker social support is also a significant component of Bakker, van Emmerik & Euwema's (2006) dedication-vigor-absorption model of work engagement. The authors argued that team members' interactions "facilitated feelings of energy and enthusiasm in individual members, independent of the demands and resources" they were able to obtain.

Shuck, Rocco, and Albornoz (2010) conducted a study that explored employee engagement from the perspectives of employees, one of very few studies to utilize qualitative, semi-structured interviews and observations. Findings from their case study augment the existing research that places emphasis on the role of relationship development at work in fostering engagement (Rana et al., 2003).

Research on the social context of burnout has focused primarily on social support from supervisors, co-workers, and family members (Cordes & Dougherty, 1993; Greenglass et al., 1994; Greenglass et al., 1988; Maslach et al., 1996). Co-worker support has been found to be closely related to accomplishment or efficacy, reflecting the value employees put on the evaluation by their peers (Jackson et al., 1986; Leiter & Maslach, 1988). Regardless of its specific form, social support has been found to be associated with greater engagement (Leiter & Maslach, 1988; Schnorpfeil et al., 2002).

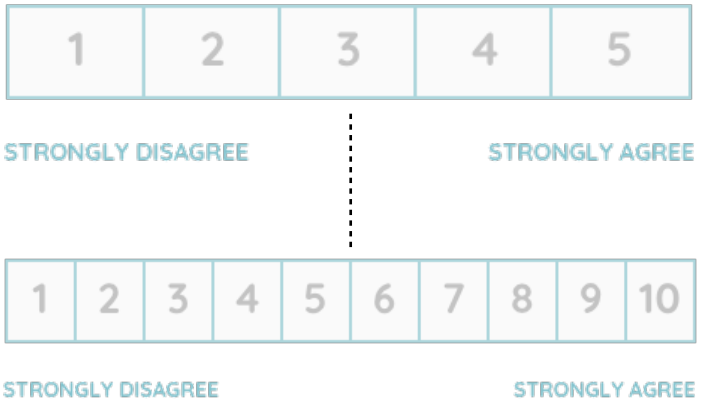
Research in Asia has also clearly delineated co-worker support (Lai & Lee, 2011) and relationships among co-workers and team members (Dharmendra & Naveen, 2013) as key drivers of employee engagement.

Likert Scales

In the surveys that we run, you would often see a bar asking you to respond to the question with a rating from 1 through 5. We often use scales as a measure for how an individual feels, or thinks about their level of engagement. Scales measure the intensity of a variable. Other than Likert scales, there are many others which also help to measure responses, such as Thurstone scales, Borgadus social distance, semantic differentials and Guttman scales.

However, Likert scales remain the most widely used in survey instruments worldwide. They simply ask respondents to report the degree with which they either agree or disagree with a statement. We chose a 5 point Likert scale to respond to our surveys as we found that scales with a higher number of categories to choose from did not introduce stronger predictive power and introduced complexity to the survey instead.

Other advantages of picking a 5 point scale over other other scales is its presence of a precise midpoint.



This allows for clarity when the respondent has a ‘neutral’ response. As visualised in the above diagram, when using the 5 point scale, ‘3’ is clearly the midpoint of the scale, while in the ’10’ point scale, there is no option for a clear ‘neutral’ response. Many respondents may mistake ‘5’ as the midpoint, but on a scalar plane, ‘5.5’ is the actual midpoint. Thus, an odd-numbered scale is usually the best choice for most Likert scales.

Additionally, we find meaningful differences between the ‘4’ point responses and the ‘5’ point responses, leading us to conclude that introducing more categories to the Likert scale just increases complexity in analyzing the data, as 5 points are sufficient to yield predictive power.

Appendix

[1] List of Survey Instruments

The Gallup Workplace Audit (GWA; Harter, Schmidt, and Hayes, 2002)
Towers Watson Employee Engagement Survey
Kenexa Employee Engagement Survey
The UWES (Schaufeli et al., 2002)
The Psychological Engagement Measure (May et al., 2004)
The Job and Organization Engagement Scales (Saks, 2006)
The Job Engagement Measure (Rich et al., 2010)
The Employee Engagement Survey (James et al., 2011)
The ISA Engagement Scale (Soane et al., 2002)

[2] Contextual Adequacy Test

The mean score of the responses on each item provided was calculated for each driver. In order to be retained, an item's mean had to pass two tests. First, an item's highest mean had to correspond to the intended engagement driver. In addition, to eliminate items that, an item's highest mean had to be sufficiently different from the ratings obtained for the other categories. If the difference between the highest and the next highest mean was not at least .20, the item was discarded.

[3] Structural Equation Modelling

A confirmatory factor analysis was performed with latent variable structural equation modeling (Jöreskog & Sörbom, 1993) using maximum likelihood estimation in AMOS 18.0 (Arbuckle, 2006). The overall model fit for a second-order structure with 11 drivers as latent indicators of a higher order engagement factor was very strong: ^{2} = 64; df = 24; GFI = .95; SRMR = .04; RMSEA = .08; CFI= .98. Model fit is usually considered good when ^{2} / df falls below 3, and acceptable when ^{2} / df is below 5. GFI and CFI values greater than .9 represent a good model fit, and for SRMR and RMSEA, values less than .08 indicate a good, and values between .08 and 1 indicate an acceptable model fit (Browne & Cudeck, 1993; Hu & Bentler, 1998; R. B. Kline, 2005).

All items loaded strongly on the intended facet with standardized factor loadings ranging from .82 to .94. Moreover, each dimension facet loaded strongly on the general engagement factor with standardized factor loadings of .73 for autonomy, .60 for clear expectations, and .98 for manager support, etc. The inter-facet correlations were statistically significant at the p<.0001 level, which indicates that the general factor is influencing each facet with a similar strength. The reliability of our engagement measure was strong for the overall construct (alpha = .91) as well as for each facet, where the alpha values were .90 for autonomy, .92 for clear expectations,.94 for manager support, etc.