Work Time Demand and Job Satisfaction of Geographically Dispersed Team – The Mediating Role of Organizational Support

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#### ABSTRACT

Employee job satisfaction is often attributed to amongst others the level of co-worker and supervisory support in an organization. For geographically dispersed teams (GDT), the ability to support team members remains a spatiotemporal challenge with limited face-to-face contact, time zone differences, cultural and language impediments. The inability to collaborating and organizing work across different time zones with few overlapping hours exert psychosocial stress that impedes job satisfaction. This research was undertaken to gauge the satisfaction level of Malaysian GDTs working under such conditions and the effect of organizational support to buffer the impact and restore job satisfaction. Outcome of the quantitative survey involving 306 Information Technology Outsourcing and Business Processing Outsourcing respondents located in multimedia-super corridor flagship town of Cyberjaya shows a causal linkage between work time demand and job satisfaction. The finding also reveals that job satisfaction is partially mediated by organizational support in relation with work time demand.

#### Type of Paper: Cases

*Keywords*: Job satisfaction, Work Time Demand, Organizational Support, Geographically Dispersed Teams, Temporal Dispersion Separation

#### **1. INTRODUCTION**

Kirk is a skilled knowledge professional located in Cyberjaya, Malaysia who works for a Multinational Corporation (MNC). His teammates are located at different parts of Asia, Europe and America. Although he values the vast diversity, rich culture and expertise in his geographically dispersed team (GDT), he finds the virtual aspect of his job challenging. Most of his co-workers and his immediate supervisor are located in different countries. They rarely meet face-to-face and rely heavily on asynchronous communication which is often frustrating due to lack of clarity, misinterpretation and false assumption. In order to establish more effective communication, the team meets three times a week for phone chat. Due to the 8 hour offset between Malaysia and regions in communication, meetings are held in the late evening Malaysian time. During these hours, Kirk would forgo his evening social and family enrichment activities attending conference calls until way past bed time of his family. In addition to work-family conflict, these interactions exert strain that often lead to tension and job dissatisfaction within the team.

The working life as experienced by Kirk is not new for GDTs located in Malaysia, As global working becomes more entrench, virtual teams are becoming a norm for modern business (Duke, 2015). The scarcity of resources exacerbates the issue of global working where individuals of these teams are expected to work independently with minimum supervision. This requires self-motivation and disciplined. A global survey conducted by Accenture (2014) reveals that job satisfaction of virtual teams has decreased to 44% from 52% in 2013 attributed mainly to feeling underpaid, long work hours and high role demand. Yet, other surveys such as JobStreet (2012) cited relationship with supervisor, long work hours and lack of co-workers support as the main reasons for their dissatisfaction.

It is apparent from these surveys that work time demand from spatiotemporal effect of global collaboration, and organizational support from the aspect of co-worker support, supervisory support, and decision latitude (Woo, 2009) play a crucial role in the affective and cognitive emotion of a GDT employee. It raises the question of how work time demand influence employee job satisfaction and would organizational support improve employee job satisfaction in the relation with the time demand of work? This study explores the questions from Malaysian GDT perspective through a quantitative survey undertaken in the Multimedia-super Corridor (MSC) flagship town of Cyberjaya.

### **2. LITERATURE REVIEW**

Studies by Tang., Zhao, Cao, and Inkpen (2011), and Olson and Olson (2000) found evidence of challenges in active collaboration across GDT sites. It is especially problematic in time zone differences of eight or more hour offset forcing affected teams to work extended hours beyond typical work hours for inter-region real time communication. This mode of communication is essential as studies have shown that using asynchronous communication is ineffective due to cross-cultural conflict, differences in communication style and unreliable collaborative devices that generates the feelings of "dissatisfied", "being behind" or "missing out" among GDTs (Klitmøller & Lauring, 2013).

Although having real time communication alleviates some of the collaboration issues, it exacerbates others. As Malaysia is located in the Far East 8 hours ahead of Greenwich Mean Time (GMT +8), Central European Time is an hour ahead of GMT (GMT+1) and US Central Standard Time is 6 hours behind GMT (GMT -6), real time communication between Malaysian GDT and their counterparts in America and Europe takes place either in early morning or late evening. Individuals often sacrifice their evening social hours with their family attending conference calls resulting in work-family imbalance. Greenhaus, Collins, and Shaw (2003) in their assessment of the various components of work-family balance found that individuals who spent less time on family experience lower quality of life. It was reported that individuals working under such conditions have a higher tendency of suffering from health related problems. Raediker, Janssen, Schomann and Nachreiner (2006) in their

study on working condition found a consistent relationship between length of working hours and its effects on workers ranging from dysfunctional families, divorce cases to psychology problems. Collectively, these factors impact on employee job satisfaction depicted by his behaviour, cognitive and affective traits (Hulin & Judge, 2003).

As most virtual organization expects GDTs to operate independently with shared purpose across space, time, and organization boundaries, a certain level of decision latitude and job control would be given to the team. In contrast organizational support can be challenging in temporal dispersed environment. Studies (Chinowsky & Rojas, 2004; Varner & Beamer, 2009; Klitmøller & Lauring, 2013) have shown that co-workers in different virtual teams face coordination problems due to lack of trust and intercultural believes and attitudes. Lack of overlapping work hours also contributes to the coordination problems. Supervisory support may also be lacking due to different focus (Klitmøller & Lauring, 2013).

Job Demands-Resources (JD-R) model postulates that organizational support is a form of motivational process that buffers the impact of work demand and restore job satisfaction (Bakker & Demerouti, 2007; Willemse, De Jonge, Smit, Depla, & Pot, 2012). However, JD-R model was proposed by Demerouti in 2001 at the period when firms were expanding their operations offshore in the 2000s (New York State Department of Labor and Empire State Development, 2010) and global working was in its infancy. As shared service and outsourcing (SSO) became more entrenched, the effect of spatiotemporal became more apparent. Although past studies on global working were carried out such as temporal dispersion barriers (Rao, 2004; Beulen, 2012; Carmel, 2012), job resources (Idris, Dollard, & Winefield, 2011; Wickramasinghe, 2010; Malhotra & Chadha, 2012) and job demand (Harrington & Ladge, 2009; Malhotra & Chadha, 2012), these studies did not address the spatiotemporal issue of fixed scheduled GDT employee located in time zone differences of 8 or more hour offset. In addition, it would be interesting to understand the application of JD-R model in the context of GDT. Specifically, whether organizational support have the same mitigating effect in buffering work time demand and restoring job satisfaction that form the core objective in this study.

### **3. METHODOLOGY**

### 3.1 Conceptual framework

Job satisfaction is determined by an employee's quality of work life (QWL) attributed to the two factors of extrinsic hygiene factor and intrinsic motivators (Hezberg, 1966). The strength these two factors have on QWL depends on their complexity and importance. For instance, individuals having high emotional work demand and low job control would most likely experience lower QWL and job dissatisfaction. Work demand as defined in JD-R model is considered a health impairment process (Bakker & Demerouti, 2007). In this regards, we categorize work demand using traditional occupational stress as that involving work overload, emotional demands and role reorganization and inject findings from Karasek (1979) that without proper occupational control would result in emotional exhaustion. As time demand of work from the effect of spatiotemporal increases, it exerts unresolved strain on an individual causing psychosomatic ailments invariably leading to depression, exhaustion and ultimately low QWL. This phenomenon establishes a correlated link between the pressure of work time demand and employee job satisfaction.

JD-R model conversely treats job resources as motivational process in reducing work demand and simulating personal growth (Bakker & Demerouti, 2007). Woo (2009) suggested that job resources in the form of perceived organizational support is examined from three perspectives of support from management, support from supervisor and co-workers support. However, organizational support should not be restricted to only organization but also support from supervisor and the employees' co-workers. The support from peers can influence employees positively which in turn influence employees' perception of support from organization. The positive outcome of these relations establishes a positive link between organizational support and QWL therefore promoting job

satisfaction. These suppositions would theoretically assume organizational support having a similar intervening effect on work time demand in restoring job satisfaction. Based on these arguments, the conceptual framework (Figure 1) was developed that is used to test the assumptions made in this research.

## 3.2 Hypotheses

The first hypothesis was based on JD-R model that proposes high job strain exhausts employees' mental and physical resources leading to burnout and job dissatisfaction. Literature review has shown that collaboration across GDT sites is especially problematic in eight or more hour offset forcing professionals to work extended hours in their attempt to augment overlapping work hour window. The long irregular work hour leads the study to hypothesize that global time demand of work as those experienced by GDT has a profound effect on employee job satisfaction.

H1. Global work time demand (WTD) negatively affects satisfaction (JS) of GDT employees.

The second hypothesis is to address the research question on the influence of organizational support in restoring job satisfaction in the context of GDT. This assessment was based on the level of decision latitude, supervisory and co-worker support experienced by Malaysian GDTs and the satisfaction derived from such support.

H2. Organizational support (OS) predicts employee job satisfaction (JS).

The third hypothesis is to test whether organizational support has mediating effect on the relation of global work time demand and job satisfaction. This hypothesis support JD-R model of having organizational support buffering impact of work demand and restoring job satisfaction.

H3. The impact of job satisfaction is increased when organizational support is included, indicating the latter assumes a mediating role in the relation of work time demand and job satisfaction.

3.3 Population and sampling technique

This study is targeting fixed schedule knowledge workers working in MNCs who are providing shared services and offshore outsourcing (SSO) support. Overall, 306 usable responses from 14 MNCs located in multimedia-super corridor flagship town of Cyberjaya were collected from the online survey.

# 4. RESULTS

Measurement model was used for confirmatory factor analysis (CFA) followed by specification and estimation of the models. Initial assessment of the hypothesized model could not be accepted. Unidimensionality testing and dataset evaluation were then carried out to improve the model and confirm the underlying structure on the basis of theoretical ground. This results in the removal of indicator JR9 "*People I work with are competent in doing their jobs*" from measuring OS because of large standardized residual covariance with other indicators. The final respecified model (Table 1) was analyzed to have possessed all necessary good fit requirements.

4.1 Structural regression analysis

There is a significant and negative regression path between JS  $\leftarrow$  WTD indicating a strong and inverse relation between the two constructs (Table 2). It supports the first hypothesis that WTD negatively affects JS of GDT employees reaffirming JD-R model health impairment process that increasing work time demand would result in higher job strain and lowers job satisfaction.

Conversely, the significant and direct causal link between JS  $\leftarrow$  OS established the criticality of organizational support in improving employee motivation. It lends weight to the second hypothesis that OS is a predictor of JS. Figure 2 shows 34% of the variance of job satisfaction is accounted by the regression model.

4.2 Mediation Test

The mediation assessment of OS in relation to WTD and JS was carried out following Baron and Kenny (1986) approach. To eliminate the possibility of Type 1 error in Baron and Kenny approach, percentile bootstrap method was added to the test. The combination of these approaches is considered one of the most powerful tests of mediation (Krause, Serlin, Ward, Rony, Ezenwa, & Naab, 2010). The result (Table 3) shows that when mediator OS was introduced in the second step (Step B), the path estimate dropped to -0.189 with both critical ratio (C.R = 3.66) and p-value (<0.001) remained significant indicating partial mediation has taken place. Percentile bootstrap confirms the outcome of second step. As such, hypothesis (H3) is partially supported.

### **5. DISCUSSION**

The study suggests that spatiotemporal impact on Malaysian GDT employees is immutable as long as the need for global team collaboration and alignment exist. It leads to employees working long irregular hours in their attempt to augment overlapping work hour window. This is supported by a high percentage of respondents claiming that they work long hours and often until late in the night. The job strain (time pressure) from attending evening conference calls at the expense of social leisure and family enrichment activities cause workers to suffer psychosocial stress and eventually job dissatisfaction.

In line with the JD-R model health impairment process, responses given to "satisfaction with work" inversely and significantly correlates with "working long hours". It is pertinent to also acknowledge the contribution of organizational support as the motivational process in restoring job satisfaction. Unlike co-locate teams (CLT) where meetings are held face to face, GDT does not have the same operating ability. The window for synchronous communication is just sufficient for task oriented discussion. This type of virtual working erodes social interactions among co-workers and supervisor that is fundamental in team bonding. Respondents in the survey acknowledged high organizational support as essential in promoting job satisfaction. The need for organizational support is greater felt in GDT environment where job strain from high work time demand. Regular positive reinforcement and intimate knowledge of team member characteristics, sociocultural and family background would create better understanding and empathy in fostering closer team dynamics, cognitive and affective emotional bases of behaviour among individuals in the team.

However, team should be aware of the paradoxical effect on the time spent in promoting non-work related activities. Due to geographical, distance and temporal effect of GDT, the lack of overlapping work hours can serve as an impediment that can be counter-effective if too much time is spent on team dynamics that could otherwise be utilized for family enrichment activities or other social activities. For the Malaysian GDT, having less team interactions in the late evening would alleviate work time demand, creates better work life balance and quality of work life. However, too little interactions would equally have an adverse effect on employee job satisfaction. Therefore a fine line is drawn between spending time on organizational support and reducing work time demand that GDT has to juggle to sustain job satisfaction. It explains the partial mediation of organizational support on job satisfaction in the face of work time demand.

#### 6. LIMITATIONS AND SUGGESTION FOR FUTURE RESEARCH

The study was carried out in Malaysia which is eight hours ahead of GMT. A location study based on a single time zone would not allow the study to generalize the findings over larger temporal dispersion variances. One suggestion is to expand the study over wider geographical locations and time zones such as Australian Eastern Standard Time (GMT +10) to understand variability of geographical, distance and temporal dispersion on the variance of work time demand and GDT employee job satisfaction.

#### 7. CONCLUSION

Despite the study indicating that Malaysian GDTs are generally satisfied with their work environment, the observed staff turnover rate remains high. This is particularly concerning as the inability of MNCs to retain talent would not allow firms to sustain competitive edge especially on knowledge and experience that is critical to driving high performing SSO organization. This is attributed mainly to the vibrant growth of SSO in Malaysia that creates abundance job openings and the GDT working conditions that are driving graduates to shun the SSO industry. Addressing the talent pool will be one of the keys in growing the SSO industry and enticing more foreign direct investment. The other possibility given the resource constraint is to move up the value chain from being a low value service provider to participating in niche areas such as big data analytics, cloud computing, risk-based security and high value business processing outsourcing (BPO) services.

Having the right policy and staff retention strategies would help grow the industry and entice more foreign direct investment drawn into the country.

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# FIGURES

Figure 1 Conceptual Framework

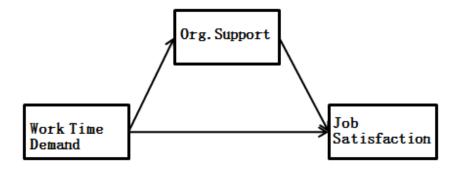
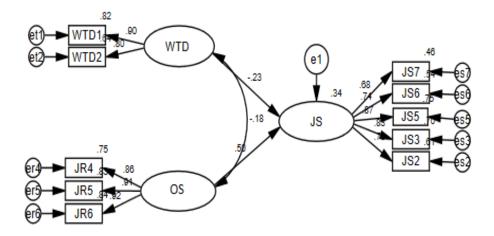


Figure 2 Structural Regression Modeling



# TABLES

Fit Values	Score	Std	Fit
Chi Square	44.76		
Df	32.00		
Chi Sq/df	1.40	< 2.0	Good
p-value	0.07	> 0.05	Model is
			accepted
Goodness-of-fit index	0.97	> 0.90	Good
Adjusted goodness-of-fit	0.95	> 0.80	Good
Tucker-Lewis index	0.99	> 0.90	Good
Comparative fit index	0.99	> 0.90	Good
Normed fit index	0.98	> 0.90	Good
Root mean square residual	0.03	< 0.05	Good
Root mean square error of approximation	0.04	< 0.05	Good

Table 1 Respecified measurement model fit indices

# Table 2 Hypothesis Testing

Hypothesis	Regression Path	Path Coeff.	T-Value (CR)	P Value	Decision		
H1	JS < WTD	-0.23	-3.578	***	Supported		
H2	JS < OS	0.50	8.132	***	Supported		
* if $p < 0.05$ ; ** if $p < 0.01$ ; *** if $p < 0.001$							

Table 3 Mediation Analysis

						Р	
Step		Regr. Path	Est.	S.E.	C.R.	value	Decision
А.	Direct effect without mediator OS	JS <wtd< td=""><td>-0.260</td><td>0.060</td><td>-4.360</td><td>***</td><td></td></wtd<>	-0.260	0.060	-4.360	***	
В.	Direct effect with mediator OS	JS <wtd< td=""><td>-0.189</td><td>0.052</td><td>-3.659</td><td>***</td><td>Partially Mediated</td></wtd<>	-0.189	0.052	-3.659	***	Partially Mediated
C.	Indirect effect (Bootstrap)	JS <wtd< td=""><td></td><td></td><td></td><td>0.012*</td><td>Partially Mediated</td></wtd<>				0.012*	Partially Mediated
* if p < 0.05; ** if p < 0.01; *** if p < 0.001							

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