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Regulatory Effects and Strategic Global Staffing Profiles: Beyond Cost Concerns in Evaluating Offshore Location Attractiveness

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Abstract The practice of offshoring—staffing all or part of a business outside the home country—has proliferated to such an extent that the question for most multinational corporations (MNCs) is where, not if, some or all of its labor forces should be located beyond geopolitical borders. It remains an open question, however, where and under what conditions the hoped-for advantages of offshore staffing are best realized. While cost savings continue to play the major role for most companies, both quality and availability of worker skills and administrative and regulatory contexts of labor markets have increasingly influenced global staffing decision processes. This paper has two purposes: to examine the extent to which employment laws and other regulatory factors can impact—beyond cost concerns alone—the decision where to offshore, and to offer a methodology for developing attractiveness profiles that can help governments, service providers, and MNCs evaluate and improve the match between staffing needs and labor market characteristics. By examining financial considerations in conjunction with administrative and regulatory effects, the parties can better manage ongoing expansion of offshore staffing arrangements beyond more established locations such as India, China, and Malaysia. Strategic implications of a trend toward nearshoring—relocating offshore operations closer to or within the home country—are also discussed.

Key words offshoring · outsourcing · global staffing · strategic HRM · multinational corporations

Labor statistics indicate that hundreds of thousands of jobs in more developed countries such as the U.S. have been relocated overseas to India, China, Malaysia, and other countries since the turn of the century. When a firm replaces domestic human resources with overseas labor, those jobs are said to have been "offshored." Originally concentrated in manufacturing, offshoring has now extended to service activities such as computer engineering, call center operations and I.T. support, accounting and payroll operations,

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medical records transcription, legal and paralegal services, and other business processes. While the reason most often presented is that overseas workers may cost only a fraction of the domestic wages paid to their home-country counterparts (Ostrom 2004), improved quality in some sectors (e.g., software development) has also been cited as motivation for considering human resource suppliers in various locations around the globe. The evidence remains unclear, however, as to where and under what conditions outsourcing some or all of a company's labor force is most effective.

While companies typically focus on reduced offshore labor costs, it is possible to overlook hidden downsides related to communication and supply chain inefficiencies, host country political or regulatory dynamics, recruitment, training, and retention issues in the destination country, cultural differences in workforce attitudes, or labor displacement costs at home (Clark 2004). Specific concerns include possible domestic customer dissatisfaction with offshore service centers; security and privacy concerns with remote labor sources; unexpected differences in labor laws, regulations, or industrial relations and human resource practices (Bair and Ramsay 2003; Bowen *et al.* 2002; Kakumanu and Portanova 2006); and weak or nonexistent trade secrets and intellectual property protection in jurisdictions overseas (Kshetri 2007; Pai and Basu 2007; Schoenberger 2004). Indeed, an increasing number of Western companies appear to be turning attention toward staffing their operations closer to home, with increased consideration given to domestic sites, locations in Latin America or Eastern Europe, and those in emerging African economies including Botswana, Ghana, Kenya, and Senegal (Dawson 2006; Frase-Blunt 2007; Kearney 2007).

An Integrative Approach to Offshore Location Decisions

Taken together, these points suggest that the decision to source some or all of an organization's labor force offshore should not automatically lead a company to an established offshore location. For example, while Bangalore, India may offer a ready supply of workers who are trained for job-specific skills and can speak English with minimal or no accents (Davis 2003), the location has seen sought-after cost savings erode over time due to increased labor demand and accumulated training costs. It would thus seem sensible to take a more integrative approach to offshore staffing that considers cost, skills, and infrastructure effects within one's overall human resource strategy, and to critically examine offshoring alternatives that could help achieve and sustain competitive advantage (Aron *et al.* 2005; Gupta *et al.* 2007; Lepak *et al.* 2005).

Much like other forms of outsourcing, offshoring generally involves the desire for savings in labor costs, access to external skills, innovation, or expertise, proximity to foreign markets, or some combination of all of these. However, the driving motivations are likely to vary in part based on what sorts of functions are to be offshored. For example, in their study of firms that outsourced HR practices, Lepak *et al.* (2005) found outsourcing administrative functions such as benefits and payroll to be driven largely by cost concerns, whereas operational functions were outsourced for access to external expertise, market proximity, and overall business infrastructure.

To position itself more advantageously to take advantage of future opportunities along these lines, an MNC might choose to make selective investments in emerging overseas labor markets that have not yet been as fully tapped for their potential to contribute valued human capital toward a company's business goals, and which might satisfy the company's staffing needs on a differential basis as needed. Both academics (e.g., Aron *et al.* 2005) and practitioners (e.g., Farrell *et al.* 2006) now advise dividing work among multiple vendors in different countries and otherwise diversifying the risk of any particular labor market in

order to guard against increasing costs in established markets, opportunistic behavior by sole-source contractors, and supply chain uncertainties.

The extent to which even seemingly straightforward cost-related and other advantages of offshoring can be realized may be limited, however, by the burden of administrative and regulatory compliance associated with doing business in a given location (Cooke 2001). Pierre and Scarpetta (2004) reported that multinational employers often perceive tight labor regulations as severe constraints on their ability to do business, but to differing extents; for example, medium-size firms seeking growth were more impacted than smaller firms able to buffer their core labor force with temporary employees, whereas innovating firms found it necessary to train their existing workers on the job when labor regulations made hiring new workers too costly. Botero *et al.* (2004) found empirical support for the existence of such concerns about the impacts of administrative and regulatory compliance, and also found worker-oriented national politics associated with more stringent labor regulations, more generous social security systems, and higher tax burdens on MNCs that could increase the difficulty or expense of starting or closing a business, hiring or firing workers, enforcing contracts or intellectual property rights, or moving products and information across borders.

These findings carry implications both for more developed country MNCs seeking to optimally source their labor supplies and for developing countries seeking to provide offshore staffing services to such companies. While more developed countries may have higher standards of living, a greater supply of educated and trained workers, better infrastructure, and a more favorable environment for doing business at home, these factors typically reflect higher wage and income levels or tax burdens that may drive the desire to offshore. Meanwhile, developing countries that offer lower apparent labor costs in the short run may be undermined in the long term viability or sustainability of their attractiveness as offshore sites if administrative or regulatory burdens related to doing business are seen as too great. To examine generally the expansion of strategic offshoring considerations beyond cost savings alone, and to examine specifically the possible importance of skills availability, operational efficiency, and administrative and regulatory burdens, the following hypotheses are offered:

Hypothesis 1: *Offshore location attractiveness generally will continue to be driven primarily by desires to realize cost savings and financial advantages relative to staffing operations at home.*

Hypothesis 2: *Offshore location attractiveness for companies outsourcing primarily for cost savings and financial advantage will relate negatively to higher tax, wage, and income levels, and negatively to administrative and regulatory burdens associated with employing workers and other aspects of doing business.*

Hypothesis 3: *Offshore location attractiveness for companies outsourcing primarily for skills availability and improved performance will relate positively to higher tax, wage, and income levels (which typically reflect higher standards of living and a greater supply of educated and trained workers), but negatively to administrative and regulatory burdens associated with employing workers and other aspects of doing business.*

Hypothesis 4: *Offshore location attractiveness for companies motivated to outsource primarily for operational efficiency and market proximity will relate positively to higher tax, wage, and income levels (which typically reflect better infrastructure and a more favorable environment for doing business), but negatively to administrative and regulatory burdens related to employing workers and other aspects of doing business.*

Attractiveness Profiles, Supply Chain Concerns, and "Nearshore" Staffing Closer to Home

Offshoring, of course, is not without its risks in any location, and concerns over geopolitical stability, supply chain reliability, regulatory and cultural differences, social and moral implications of impacting offshore environments, and other aspects of longer-term viability or sustainability of offshore staffing sources may counter potential benefits of individual offshoring arrangements. Lee (2002) has noted that supply chain strategies typically vary around issues involving efficiency (cost and information coordination and control), risk-hedging (redundancy to avoid reliance on single sources), responsiveness (flexibility), and agility (a combination of responsiveness and risk-hedging). In the staffing context, this suggests, for example, that firms producing innovative products with short life cycles but stable supply processes may want to emphasize flexibility and risk-hedging via *quality*, and thus seek labor markets with higher costs but a greater availability of workers having higher education, training, and skill levels. On the other hand, firms producing functional products with stable supply processes may want to emphasize lower labor costs, control structures, and risk-hedging via *redundancy*, and thus seek to develop a portfolio of multiple labor market options to generate a greater availability of less skilled but less expensive workers such as those likely to be found in emerging offshore locations. A systematic framework for operationalizing these factors would help to facilitate a better global staffing process overall.

These points also suggest that certain business functions may be stronger candidates than others for nearshoring rather than offshoring. Countries such as India, China, and Malaysia that wish to encourage their continued or greater use as an offshore location by Western companies thus may want to consider how to counter possible competitive threats from emerging economies in the Western Hemisphere (e.g. Chile, Costa Rica, Mexico) that exhibit similar profiles and tradeoffs among cost, skill, and infrastructure dimensions but also offer shorter supply chains to and from the home country. Of course, other offshore locations in the same region (e.g., the Philippines, Vietnam) have also increased in overall attractiveness during recent years (Kearney 2005) and likewise should not be ignored. To provide a framework for analyzing such competitive factors and global staffing alternatives more systematically, the following propositions are offered:

Proposition 1: *Countries may be classified generally by degree of development and established levels of offshoring as follows: (1) More developed, offshore user; (2) Less developed, established offshore location; and (3) Less developed, emerging offshore location.*

Proposition 2: *Established offshore locations such as India, China, and Malaysia can expect increased competition from less developed but emerging offshore locations in Asia and the Asia Pacific region, Latin America, and elsewhere, as well as from nearshoring trends in more developed offshore user countries such as the U.S., U.K., and Canada; offshore staffing users can benefit from this competition by systematically considering alternative offshore locations with similar profiles along cost, skill, and infrastructure priorities.*

Methods

Aggregate survey data from two archival sources, A. T. Kearney's Global Services Location Index (2005) and World Bank ratings on various aspects of the ease of doing business internationally (2005, 2006), were used to investigate relationships among levels of

economic development, administrative and regulatory burdens on employing workers and other aspects of doing business, and perceived overall attractiveness of the top 40 offshore staffing locations. Data from both sources represent the latest years for which full information was available. Because overall attractiveness ratings may mask tradeoffs of interest among costs, skill availability, infrastructure, longer-term viability and sustainability of offshore arrangements, and other considerations, the A. T. Kearney data were broken down into separate component ratings for *Financial Structure* (compensation costs, overhead, tax and regulatory costs), *People Skills and Availability* (labor force availability, education and language ability, business process skills and experience, attrition rates), and *Business Environment* (economic and political stability, cultural adaptability, infrastructure quality, security of intellectual property). Because respondents have tended to favor cost advantages over other factors, these measures were assessed by Kearney using both three- and four-point scales to reflect relative weights in overall location attractiveness of 40%, 30%, and 30%, respectively.

To test Hypotheses 1–4, each of these three measures was regressed on World Bank relative rankings for ease of starting a business, obtaining licenses, employing workers, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts, closing a business, and Gross National Income (GNI) per capita (as an indicator of overall country development, likely infrastructure quality, and labor quality and wage levels). Where significant relationships were found for these overall rankings, individual sub-dimensions of each were also tested via regression to gain a better insight into which specific factors were driving the overall relationships (see the Appendix for a list of each of the World Bank dimensions of ease of doing business and their respective sub-dimensions).

To test Propositions 1 and 2, the same three measures of *Financial Structure*, *People Skills and Availability*, and *Business Environment* were used to cluster the top 40 offshore locations into three general groupings: more developed offshore user countries (those with less favorable financial structures but more favorable people skills and availability and more favorable business environments), established offshore locations (those with more favorable financial structures but less favorable people skills and availability and less favorable business environments), and less developed but emerging offshore locations (those with relative profiles similar to those of the established offshore locations but with lower overall scores on each dimension, thus reflecting less offshore attractiveness to date). Because the measures used to cluster were from a sample of somewhat similar countries (in that all of them appeared in the top 40 rankings for offshore attractiveness), the data might not have been amenable to replication based on a well-separated cluster structure. The *k*-means algorithm (MacQueen 1967), which has been shown to effectively recover even poorly separated clusters in artificial data sets (Milligan and Cooper 1985; Pollard 1981), was therefore utilized for this part of the analysis.

Results

Simple Statistics

Correlations among the three Kearney offshore attractiveness dimensions and the 2006 World Bank ease of doing business rankings for which significant relationships were found in any of the subsequent regression analyses are shown in Table 1 (because the results were virtually identical when using the 2005 World Bank data, only the figures for the later year

are shown). As might be expected, there were significant inter-correlations among the attractiveness dimensions, with financial structure (lower costs) negatively related to both people skills and availability and business environment; in essence, the better the human capital and infrastructure quality, the more a company can expect to have to pay for it. Although conceptually distinguishable, people skills and availability and business environment were positively intercorrelated; all else equal, more qualified workers and more business-friendly infrastructure seem to go hand in hand.

Overall agreement and cross-validity of the two data sources found general support. As might be expected, financial structure was strongly and negatively correlated with GNI per capita (i.e., higher levels of country development, infrastructure quality, labor quality, and wages cost money, thus corresponding with less favorable overall financial conditions from the standpoint of offshore staffing users). As also might be expected, the people skills and availability measure was positively correlated with GNI per capita, while business environment (political stability, security, and infrastructure) corresponded with less difficulty employing workers, paying taxes, trading across borders, or closing a business.

Regression Results

To test Hypotheses 1 and 2, *Financial Structure* was regressed on both the 2005 and 2006 World Bank ranking variables; results are shown in Table 2, and are similar for both years' data (R^2 values are those for 2006). As expected, GNI per capita was strongly and negatively associated with favorable (low cost) financial structure, consistent with Hypothesis 1. Administrative and regulatory burdens associated with difficulty of employing workers also related negatively to favorable financial structure as predicted, thus providing support for Hypothesis 2, although the incremental increases in overall model R^2 values were small. Difficulty of closing a business further reduced financial structure ratings, suggesting the possibility that employing larger numbers of low cost workers carries with it greater administrative burdens in ending the business enterprise.

To further explicate these results, *Financial Structure* was then regressed on the World Bank individual sub-dimensions (see Appendix) of the ranking variables for which significant relationships were found in Table 2; these results are shown in Table 3. As indicated, both higher GNI per capita and greater rigidity of employing workers (difficulty in ending the employment relationship) were significantly and negatively associated with favorable

Table 1 Correlations among the offshore attractiveness dimensions and world bank ease of doing business rankings found significant in regression analyses.

	1	2	3	4	5	6	7
1) Financial Structure							
2) People/Skills Availability	−0.669**						
3) Business Environment	−0.889**	0.561*					
4) Employing Workers	0.238 ns	−0.246 ns	−0.561**				
5) Pay Taxes	0.507**	−0.138 ns	−0.655**	0.527**			
6) Trade Across Borders	0.678**	−0.364*	−0.702**	0.246 ns	0.486**		
7) Close a Business	0.704**	−0.422**	−0.656**	0.351*	0.366*	0.438**	
8) GNI per capita (US $)	−0.900**	0.648**	0.801**	−0.352*	−0.614**	−0.711**	−0.639**

*$p<0.05$; **$p<0.01$

Table 2 Regression results—A.T. Kearney 2005 financial structure score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	−0.794	0.000	−0.787	0.000	0.810/0.804	
Closing a Business	0.236	0.001	0.245	0.007	0.838/0.829	0.028/0.025
Employing Workers	−0.127	0.090	−0.125	0.082	0.851/0.839	0.013/0.010
Total R^2 explained by administrative/ regulatory burdens						0.041/0.036

Predictors are 2005 and 2006 World Bank financial figures and rankings for administrative and regulatory burdens associated with doing business. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Beta coefficients and significance levels are shown for predictors that remained significant in both models. R^2 values were similar for both years; those shown are for the 2006 models.

financial structure, although once again GNI (likely labor cost) explained the lion's share of overall variance, consistent with and supporting Hypothesis 1. Difficulty closing a business and asset recovery rates when doing so also related to financial structure scores.

To test Hypothesis 3, the *People Skills and Availability* measure was regressed on the World Bank rankings; results are shown in Table 4. As expected, GNI per capita was strongly and significantly related to the apparent quality and availability of an educated and language-capable work force, as was the tax system. As shown in Table 5, the latter translated largely into actual tax rates on profits (as opposed to the administrative burden of compliance), with reduced rigidity of employment—and thus, likely flexibility in acquiring or disposing of human capital when needed—also making a significant contribution to the explained variance. Together, the administrative and regulatory compliance burden variables explained substantial added variance.

To test Hypothesis 4, *Business Environment* was regressed on the World Bank ranking variables; results are shown in Table 6. Again as expected, GNI per capita was strongly and

Table 3 Regression results—A.T. Kearney 2005 financial structure score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	−0.736	0.000	−0.739	0.000	0.810/.804	
Closing a Business:						
Cost	0.156	0.029	0.152	0.034	0.844/0.836	0.035/0.032
Employing Workers:						
Rigidity index	−0.184	0.010	−0.179	0.011	0.860/0.849	0.016/0.013
Closing a Business:						
Recovery rate	−0.219	0.030	−0.217	0.030	0.878/0.864	0.018/0.015
Total R^2 explained by sub-dimensions						0.068/0.060

Predictor variables are 2005 and 2006 World Bank financial figures and sub-dimensions of overall ease of doing business measures shown as significant in prior models. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Standardized beta coefficients and significance levels are shown, along with model R^2 values, for predictor variables that remained significant in both models.

Table 4 Regression results—A.T. Kearney 2005 people skills and availability score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	0.927	0.000	0.903	0.000	0.420/0.404	
Paying Taxes	0.418	0.004	0.416	0.006	0.528/0.502	0.108/0.102
Total R^2 explained by administrative/ regulatory burdens						0.108/0.102

Predictors are 2005 and 2006 World Bank financial figures and rankings for administrative and regulatory burdens associated with doing business. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Beta coefficients and significance levels are shown for predictors that remained significant in both models. R^2 values were similar for both years; those shown are for the 2006 models.

significantly related to a favorable business environment, with reduced levels of administrative and regulatory burdens in employing workers and trading across borders also adding significantly to overall business environment attractiveness. As shown in Table 7, lower costs, shorter times to import across borders, and lower hiring difficulty and firing costs drove the administrative and regulatory impacts that emerged, substantially increasing the model adjusted R^2.

Cluster Analysis Results

To investigate Propositions 1 and 2, *Financial Structure*, *People Skills and Availability*, and *Business Environment* were used to cluster the top 40 offshore locations into three groupings; results are shown in Table 8. As expected, the results corresponded generally with profiles reflecting offshore user countries, established offshore locations, and emerging offshore locations; on average, more developed user countries had less favorable financial structures (higher costs) but more favorable people skills and availability and more favorable business environments. Correspondingly, established offshore locations had more favorable financial structures (lower costs) but less favorable people skills and availability and less favorable business environments. Finally, like the established offshore locations,

Table 5 Regression results—A.T. Kearney 2005 people skills and availability score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	0.731	0.000	0.677	0.000	0.420/0.404	
Paying Taxes:						
Tax rate—% profits	0.445	0.000	0.397	0.001	0.543/0.518	0.123/0.114
Employing Workers:						
Rigidity index	−0.268	0.012	−0.246	0.031	0.599/0.566	0.056/0.048
Total R^2 explained by sub-dimensions						0.179/0.162

Predictor variables are 2005 and 2006 World Bank financial figures and sub-dimensions of overall ease of doing business measures shown as significant in prior models. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Standardized beta coefficients and significance levels are shown, along with model R^2 values, for predictor variables that remained significant in both models.

Table 6 Regression results—A.T. Kearney 2005 business environment score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	0.494	0.000	0.381	0.006	0.634/0.625	
Employing Workers	−0.308	0.001	−0.293	0.001	0.735/0.720	0.101/0.095
Trade across Borders	−0.279	0.013	−0.276	0.018	0.777/0.758	0.042/0.038
Total R^2 explained by administrative/regulatory burdens						0.143/0.133

Predictors are 2005 and 2006 World Bank financial figures and rankings for administrative and regulatory burdens associated with doing business. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Beta coefficients and significance levels are shown for predictors that remained significant in both models. R^2 values were similar for both years; those shown are for the 2006 models.

emerging offshore locations also had more favorable financial structures, less favorable people skills and availability, and less favorable business environments but overall scores on each dimension lower than those of their more established counterparts, with the exception of business environment (cluster centers for established and emerging locations were virtually the same).

Because cluster analysis is largely exploratory, there are no statistical tests for evaluating the "correctness" of cluster solutions. The results therefore "must be judged primarily on their usefulness in predicting outcomes of variables not used in the clustering procedure" (Arthur 1994, p.667). With this criterion in mind, the overall validity of the solution presented is supported by the conceptual alignment of the three clusters along the profiles predicted, and by the facts that the U.S., U.K., Canada, and industrialized European countries (France, Germany) were classified as developed offshore users (Table 9); India, China, and Malaysia were classified as established offshore locations (Table 10); and

Table 7 Regression results—A.T. Kearney 2005 business environment score.

Predictor	2005 β	Significance level	2006 β	Significance level	Model R^2/ adjusted R^2	ΔR^2/ adjusted R^2
GNI per capita (US $)	0.437	0.000	0.419	0.001	0.642/0.633	
Trade Across Borders:						
Cost to import	−0.264	0.001	−0.251	0.002	0.703/0.687	0.061/0.054
Employing Workers:						
Firing costs	−0.286	0.000	−0.297	0.001	0.757/0.737	0.055/0.050
Employing Workers:						
Difficulty of hiring	−0.242	0.001	−0.186	0.018	0.790/0.766	0.032/0.029
Trade Across Borders:						
Time for export	−0.606	0.006	−0.256	0.022	0.820/0.794	0.031/0.028
Total R^2 explained by sub-dimensions						0.178/0.161

Predictor variables are 2005 and 2006 World Bank financial figures and sub-dimensions of overall ease of doing business measures shown as significant in prior models. Stepwise criteria are $P(F)$ to enter ≤0.10; $P(F)$ to remove ≥0.15. Standardized beta coefficients and significance levels are shown, along with model R^2 values, for predictor variables that remained significant in both models.

Table 8 Cluster analysis results: offshore destination attractiveness profiles.

	Profile 1: developed countries (offshoring users)	Profile 2: established offshore locations	Profile 3: emerging offshore locations
Financial structure score (1–4)	0.79	3.36	2.72
People/skills availability score (1–3)	1.89	1.30	0.95
Business environment score (1–3)	2.25	1.27	1.36

Vietnam (Table 11), Chile, Costa Rica, and Mexico (Table 12) were classified as emerging offshore locations, all as would be expected.

Discussion

This research was designed to investigate financial, administrative, and regulatory impacts on the relative attractiveness of offshore staffing locations, and to enable comparison of different countries with similar profiles in terms of overall location attractiveness. In general, the expected relationships were supported, and indeed, factors related most directly to cost still appear to predominate in the strategic attractiveness equation. GNI per capita, as a general indicator of human capital quality, infrastructure quality, and wage and salary levels, explained the most criterion variance in all of the analyses, and administrative and regulatory cost factors such as those related to paying taxes, importing across borders, and firing workers added substantially to the variance explained in each of their respective models. The importance of considering non-cost administrative and regulatory factors in the offshoring decision also was supported, in that the predictor variables representing those factors as a group contributed significant explained variance in all of the models tested.

Table 9 Developed countries (offshoring users) in order of similarity to model profile (Table 8).

Country	Financial structure score (1–4)	People/skills availability score (1–3)	Business environment score (1–3)	Distance from overall cluster center
Model profile (cluster centers)	0.79	1.89	2.25	
United States	0.54	2.74	2.22	0.00000
France	0.40	2.24	2.05	0.54635
Germany	0.50	2.10	2.23	0.64133
United Kingdom	0.46	2.12	2.41	0.65338
Canada	1.10	2.03	2.40	0.92201
Australia	0.97	1.66	2.29	1.16456
Tunisia	0.97	1.66	2.29	1.16456
Ireland	0.42	1.41	2.25	1.33574
Spain	0.96	1.50	1.67	1.42004
Singapore	1.62	1.44	2.67	1.74897

Table 10 Established offshore locations in order of similarity to model profile (Table 8).

Country	Financial structure score (1–4)	People/skills availability score (1–3)	Business environment score (1–3)	Distance from overall cluster center
Model profile (cluster centers)	3.36	1.30	1.27	
India	3.47	2.14	1.26	0.00000
China	3.21	1.76	1.17	0.46915
Philippines	3.58	1.16	1.05	1.00827
Indonesia	3.51	1.06	0.89	1.14232
Egypt	3.55	0.95	0.98	1.22511
Thailand	3.27	0.94	1.51	1.24197
Malaysia	2.95	1.12	2.00	1.36323

Although the incremental variance explained by administrative and regulatory burdens was indeed less than that for more direct measures of cost, difficulties related to employing workers generally, and the rigidity of employment relationships and difficulty of hiring workers specifically, added significantly to the prediction of different aspects of offshore attractiveness (Tables 5, 6 and 7). In particular, the 5% R^2 added to the prediction of people skills and availability by rigidity of employment (Table 5), and the 10% R^2 added to the prediction of business environment by difficulty of employing workers (Table 6), should not be overlooked.

These results have implications for offshore service providers and governments seeking to enhance their attractiveness in both established and emerging offshore markets. According to A. T. Kearney (2005), India's overall lead in attractiveness has dwindled due to wage inflation and improvements by China along people skills and infrastructure dimensions, while the Philippines, despite some weaknesses in infrastructure and political stability, continues to benefit from improvements in education and the English language skills of its workforce. Meanwhile, Indonesia benefits from low wage, tax, and infrastructure costs, but education, language skills, and business environment remain ongoing concerns. Thailand continues to compete almost solely on cost advantage, while government policies in Malaysia have augmented already substantial investments in infrastructure and continued improvements to the technical and English language skills of its labor pool. This analysis is consistent overall with the cluster profiles of these countries shown in Table 10, which thus can be used to diagnose and target for improvement competitive dimensions on which any particular country may be lacking.

Table 11 Emerging offshore locations, by region, in order of similarity to model profile (Table 8) Asia/Asia Pacific Region.

Country	Financial structure score (1–4)	People/skills availability score (1–3)	Business environment score (1-3)	Distance from overall cluster center
Model profile (cluster centers)	2.72	0.95	1.36	
Vietnam	3.55	0.69	0.76	1.43600
New Zealand	1.28	1.19	2.28	1.63328

Table 12 Emerging offshore locations, by region, in order of similarity to model profile (Table 8) Latin America and Caribbean.

Country	Financial structure score (1–4)	People/skills availability score (1–3)	Business environment score (1–3)	Distance from overall cluster center
Model profile (cluster centers)	2.72	0.95	1.36	
Jamaica	2.92	1.01	1.10	0.80672
Mexico	2.87	1.16	1.19	0.81750
Panama	2.90	0.65	1.10	0.82316
Costa Rica	2.96	0.79	1.34	0.92909
Brazil	2.91	1.36	1.23	0.94419
Argentina	3.14	0.93	0.98	1.00200
Chile	2.73	0.97	1.87	1.11991

For example, with regard to other established offshore locations, these profiles show that India now appears to lag slightly behind the Philippines and Indonesia in cost advantage (Table 10), and may wish to take action to stem rising wage levels that have accompanied its lead in people skills and availability in recent years. Malaysia on the other hand appears to lead the region in infrastructure and business environment, but needs to catch up with India and China in terms of people skills and availability if it wishes to compete more effectively in the global labor market. Likewise, the Philippines also seems poised as a competitive force; Malaysia compares almost as well on people skills and availability, but remains well behind in terms of cost advantage and financial structure. The prospect of

Table 13 Emerging offshore locations, by region, in order of similarity to model profile (Table 8) Europe, Western Asia, Middle East, and Africa.

Country	Financial structure score (1–4)	People/skills availability score (1–3)	Business environment score (1–3)	Distance from overall cluster center
Model profile (cluster centers)	2.72	0.95	1.36	
Turkey	2.14	0.91	0.92	0.00000
South Africa	2.76	0.81	1.24	0.70484
Poland	2.67	1.06	1.44	0.75750
Russia	2.83	1.31	0.85	0.80062
Hungary	2.61	0.88	1.63	0.85200
Slovakia	2.72	0.96	1.55	0.85779
Israel	1.86	1.22	1.67	0.85849
Romania	3.07	0.92	1.05	0.93910
Jordan	3.02	0.91	1.43	1.01710
Portugal	1.60	0.88	1.80	1.03291
Czech Republic	2.57	1.12	1.90	1.09060
Emirates	2.66	0.61	1.85	1.10693
Bulgaria	3.29	0.86	1.11	1.16666
Ghana	3.57	0.58	0.93	1.46762

trying to improve education and workforce skills while also becoming more competitive on wages and other labor costs may prove a daunting challenge, given that these factors typically exert pressure in opposite directions.

Meanwhile, the emergence of other low-cost Asian countries such as Vietnam, and those in Latin America and elsewhere, continues to threaten the historical offshore dominance of Asia and the Asia Pacific region. Each of these countries has a somewhat different profile within their same cluster grouping, so the approach toward maintaining or improving competitive attractiveness as an offshore site should vary accordingly. For example, Vietnam holds a decided cost advantage over all established offshore locations in the region except the Philippines, but lags behind on workforce skills and business environment (Tables 10 and 11). These are areas in which offshore staffing service providers may wish to seek government or private investment to try to improve, and to sustain any short-term gains in attractiveness on a longer-term basis.

By way of contrast, Brazil, an emerging Latin American site, continues to score well on people skills and educational improvements, but suffers in terms of financial attractiveness both because of the increasing wage levels that go along with such improvements and because of the relative inflexibility of its labor laws (Kearney 2005). Looking at their profile in Table 12, we see a financial structure score similar to other Latin American contenders that is indeed less favorable than all the established offshore locations in Table 10 (although comparable to Malaysia's score), but also levels of people skills higher than all Asian and Asia Pacific countries except India and China, along with a business environment score comparable to that of India, the top rated country in overall offshore attractiveness for several years running. Coupled with the analyses shown in Tables 2 and 3, this suggests that Brazil might be able to improve its attractiveness by alleviating the rigidity of its administrative and regulatory burdens on employing workers in order to address the labor law issues mentioned above.

Meanwhile, Chile and Costa Rica both exhibit profiles highly similar to that of Malaysia, with comparable scores on financial structure but somewhat lower scores on people skills and business environment. These countries could become viable competitors with Malaysia by improving their attractiveness on the latter two dimensions, perhaps through direct investments in education funded by taxes (see Tables 4 and 5) or by easing administrative and regulatory burdens on employing workers and trading across borders (see Tables 6 and 7). Because these countries are also located in the same hemisphere as the U.S., travel times to and from the home country could be reduced from 15 h or more to under 5 h for most sites, further enhancing the competitive threat to Malaysia's market share. Similar analyses can be performed for other established Asian offshore destinations and their possible Latin American counterparts.

Finally, there is a trend toward nearshoring more staffing not only to emerging economies closer to home, but also to less expensive locations within the home country itself or other more developed countries in the same region (Dawson 2006; Frase-Blunt 2007; Kearney 2007). At the request of its consulting clients, A. T. Kearney included in its 2005 Global Services Location Index (formerly the Offshore Location Attractiveness Index) lower cost cities in otherwise developed regions in North America and Europe. While no developed countries in this sample exhibited financial structure scores comparable to those of Asia or the Asia Pacific region, certain locations within them (e.g., San Antonio, Texas in the U.S.) came close, and outpaced most offshore locations in terms of breadth and depth of skill base, strong infrastructure, and positive business environment (Kearney 2005). Recent upheavals in financial and labor markets worldwide, and possible emerging trends toward renewed trade protectionism, may continue to increase both the availability of skilled employees at lower costs and the desire to favor domestic labor sources over those abroad. In any event, Western companies that seek to emphasize the production of higher

value-added services (Sako 2006) may increasingly choose to accept cost tradeoffs in return for more favorable human capital and infrastructure offerings, and locate closer to home to alleviate supply chain risks associated with more distant offshore alternatives. Because employment regulation is particularly pervasive in the U.S., U.K., and industrialized European countries, as well as Australia, Singapore, and other more developed economies, improving attractiveness by easing administrative and regulatory burdens, perhaps through legislative initiatives or negotiations with local governments, seems to offer a more viable and sustainable longer-term tactic for companies based in these locations, and underscores the importance of considering changing administrative and regulatory burdens that accompany a decision to locate labor or capital in any particular country at any given time.

Toward a More Strategic Approach to Global Staffing

Given that offshore labor markets hold the human factors so critical to delivering products, information, and services in today's global economy, businesses should consider developing a portfolio of strategic offshore options as potential sources of sustainable competitive advantage. Although it may seem tempting to source jobs in established offshore locations today, apparent cost advantages may continue to dissipate over time as today's offshore locations become economically and demographically more similar to current "home" countries.

Perhaps due to the rise in demand for offshore staffing in software development, communications, information technology, and professional services, more companies appear to have been accepting cost tradeoffs in favor of improved human capital supplies and favorable business environments. Indeed, Singapore's profile, similar in many ways to developed country offshore users (Table 9), illustrates its deliberate emergence as a more secure location for sensitive high-end activities with an emphasis on intellectual property protection and data privacy (Kearney 2005). While not as cost-effective an alternative as other offshore destinations in the region (Table 10), Singapore boasts the highest overall business environment score in the top 40 offshoring countries, surpassing the U.S., Canada, the U.K., and Australia, among others. As its people skills continue their ongoing improvement, Singapore's overall offshore attractiveness also will no doubt continue to improve. The growing relative emphasis on human capital quality, security, and other infrastructure elements suggests that weights currently assigned to the three attractiveness components may shift as well, perhaps leading to considerable reshuffling in the current pecking order of offshore attractiveness for countries even as they stand.

Many of today's emerging labor markets will likely take the place of some or all established offshore destinations as political, demographic, and socio-economic patterns continue to evolve. Although it would be risky for a company to invest heavily in functional product production in a single developing country with limited political stability, it may make long term strategic sense to do so in an *array* of such countries to diversify or hedge the risk of labor supply disruptions and future cost increases in the domestic workforce. Although the full range of social, moral, and ethical issues involved with transplanting home country employment practices overseas remains to be considered, over time workers in numerous countries might be trained, developed, and maintained as a standing force of human capital at multiple levels of skill and sophistication; through investments in education, training, and development, tomorrow's managers and technical specialists might well come from today's unskilled, inexpensive workers in emerging global labor markets. In essence, the company would be investing in a portfolio of strategic options (Bowman and Hurry 1993; Hurry *et al.* 1992; Leuhrman 1998) on the future labor market potential of emerging economies in

countries that still offer low labor costs relative to costs of living, and which could benefit from corporate investments in education, training, and related infrastructure improvements. The sustainability and longer-term viability of such improvements might well be greater than for those of shorter-term, cost-driven investments.

Along these lines, Landry (1997) has recommended that businesses invest resources in targeted countries *while* they strategize, rather than afterward, a perspective that supports the sampling of new labor markets at low cost and low risk (Janney and Dess 2004) while creating the ability to enter new markets with personnel already prepared for different cultures in different parts of the world. This approach reflects the notion of a flexibility option—one that allows the future choice to switch investment streams—and suggests the value of maintaining alternative possible labor markets that can be strategically utilized in the future should a current workforce either at home or abroad cease to be cost-effective, provide necessary skills, offer a favorable business environment, or otherwise become sub-optimal.

Moreover, the ongoing global proliferation of telecommunication devices, which require fairly modest on-site expenditures and investment risks when compared with those for heavy plant and equipment (Pakti 2007), will likely improve both the flexibility and cost/benefit ratios of remote investments in training, development, and infrastructure over time (Bair and Ramsay 2003; Lee 2002). Because we don't know at present which labor markets or which individuals will yield the best payoffs, investment in a portfolio of options on the future developmental potential of multiple candidates in multiple locations would seem an enlightened approach.

Limitations and Directions for Future Research

As a somewhat exploratory investigation, this study carries limitations that should be noted. First, the 40 countries representing top offshore locations is a convenience sample, in that data were available for those countries on both the Kearney attractiveness measures and the World Bank ease of doing business dimensions in the same years. It also may be a somewhat biased sample, in that all of these countries made the top 40 list (unlike the other 135 countries included in the World Bank data). Of course, this may mean that the hypotheses and propositions investigated were subjected to relatively conservative tests, in that differences among 40 related countries should be harder to detect than those among a more diverse selection of countries from around the world. Nonetheless, future research should obtain and consider attractiveness and other data for more of those countries as the global economy continues to develop.

For related reasons, the results of analyses using the World Bank data should be viewed with some caution, as the measures were merely rankings—from 1 to 175—of each country along dimensions of ease of doing business. Given that a large proportion of those countries was omitted from this sample, there is no way to assess the actual intervals between and among the 40 countries examined, and this may have led to some anomalous results. For example, it is not apparent why financial structure would be associated with difficulty paying taxes, trading across borders, or closing a business (Tables 1 and 2). Future research should obtain more complete data to investigate these and other unanswered questions.

As also noted above, there is no statistical test for a "correct" cluster solution, and the analysis was designed to produce three clusters along the proposed dimensions. While most of the results make sense, several countries could well have been classified within different clusters. For example, New Zealand could have been classified as a developed country offshore user (Table 9) as well as an emerging offshore location (Table 11), and in fact exhibits elements of both in its real-world economy. Similarly, it is unclear whether Egypt should be considered an "established" offshore location, notwithstanding its overall profile,

given its low scores on people skills/availability and business environment (Table 10; see also Table 13) and the political instability of its region.

Further, the global economy and its financial and labor markets are changing rapidly, and a study such as this can provide only a snapshot of the offshoring phenomenon in an otherwise volatile environment. Indeed, 15 of the countries in the top 40 in 2005 were new entrants, and among the 25 that appeared in both 2004 and 2005, only seven—India (1), China (2), Malaysia (3), Singapore (5), Argentina (15), Australia (18), and Turkey (25)—held the same position in both surveys. Indications from subsequent research suggest that further development of emerging global labor markets will make countries including Estonia, Latvia, Lithuania, Mauritius, Morocco, Pakistan, Senegal, Sri Lanka, and Uruguay offshore forces to be reckoned with, and that Australia, France, Germany, Ireland, New Zealand, Panama, Portugal, Spain, Turkey, and the U. K. are likely taking on more characteristics of both offshore staffing users and suppliers as time goes by (Kearney 2007). All of this underscores the dynamic nature of the analysis and the need to update it promptly as new developments occur; fortunately, the methodology presented here can be adapted in a straightforward manner to changing global labor market conditions or the changing priorities of offshore users over time.

Finally, this paper was concerned largely with offshoring implications from the standpoint of the developed-country MNC, and does not address in any depth the long-term viability or sustainability of offshoring initiatives or investments. Indeed, there may be substantial question marks surrounding MNCs going into—and potentially leaving again—less developed nations or labor markets that are still emerging, such as those in the Baltic or North African regions, and the emergent worldwide financial crisis creates additional uncertainties as to whether financial investments and social intrusions into those regions will be fully warranted. Further research into these and related issues is strongly suggested, as is future reexamination of the global division of labor overall.

Conclusion

While today's reasons for offshoring may seem fairly well known, their longer term sustainability in the fast-moving global environment will likely depend on successful investment strategies that position a company preferentially to take advantage of future opportunities if and when they emerge (Janney and Dess 2004; Kogut and Kulatilaka 2001). To help deal with such an environment, a proactive, strategic, and socially conscious approach to offshoring by businesses, and a systematic analysis of strengths and weaknesses of and by offshore locations, would seem fundamental to future success in the increasingly labor-intensive service- and information-based world economy. By strategically considering financial, administrative, and regulatory impacts on overall labor market attractiveness and their stability over the long haul, better matches hopefully can be achieved between the needs of offshore users and their offshore service providers.

Appendix: World Bank Dimensions of Ease of Doing Business and Respective Sub-Dimensions

Ease of Starting a Business:

- Number of procedures
- Number of days to start up

- Startup costs
- Startup capital

Ease of obtaining licenses:

- Number of procedures
- Number of days to obtain
- Cost of licenses

Ease of employing workers:

- Difficulty of hiring
- Rigidity of hours
- Difficulty of firing
- Rigidity of employment once hired
- Nonwage labor costs (% of wages or salary)
- Firing costs (weeks of wages)

Ease of registering property:

- Number of procedures
- Number of days to register
- Cost to register (% of property value)

Ease of getting credit:

- Legal rights index
- Credit information index
- Public registry coverage (% of adults)
- Private bureau coverage (% of adults)

Ease of protecting investors:

- Disclosure
- Director liability
- Shareholder suits
- Investor protection index

Ease of paying taxes:

- Number of taxes
- Time (hours) to pay taxes
- Cost of taxes (% of profits)
- Labor taxes and contributions (% of profits)
- Other taxes (% of profits)
- Total taxes (% of profits)

Ease of trading across borders:

- Number of documents for export
- Time (days) for export
- Cost to export ($US per container)
- Number of documents for import
- Time (days) for import
- Cost to import ($US per container)

Ease of enforcing contracts:

- Number of procedures to enforce
- Number of days to enforce
- Cost to enforce (% of debt)

Ease of closing a business:

- Time to close (years)
- Cost to close (% of estate)
- Recovery rate (cents on the dollar)

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