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**Foreign Employee's Responses to the  
2011 Triple Disaster in Japan\***

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## Foreign Employee's Responses to the 2011 Triple Disaster in Japan

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## **Foreign Employee's Responses to the 2011 Triple Disaster in Japan**

### **Abstract**

The purpose of this work is to examine how the Great East Japan Earthquake impacted foreign employees at subsidiaries in Japan. We divide foreign employees in three types, classic expatriates, locally hired foreigners and short term employees which are known in the literature as frequent fliers.

We found that foreign employees differ according to their type in adjusting in case of an emergency. Expatriates exhibited a higher tendency to leave the country than locally hired foreigners. Frequent fliers hardly arrived to the Japanese subsidiary anymore after the triple disaster. Surprisingly, subsidiaries faced more hardship because of the lack of frequent fliers than to a lack of locally hired foreigners.

Results also depend on the respondents' nationality. On the one hand, Japanese respondents expressed more concern that it was difficult at the triple disaster to retain expatriates in their Japanese jobs. On the other hand, German respondents were more concerned about retaining locally hired and frequent fliers at their subsidiaries. Our surprising results of more hardship when frequent fliers left than when local hired foreigner left was given by a higher importance of Japanese respondents. Furthermore, German respondents see still nowadays difficulties to get local hired foreigners back to their subsidiaries when they left the country. Implications are discussed.

## **Introduction**

The aim of this study is to investigate the impact of the Great East Japan Earthquake of March 11th 2011, including Tsunami and nuclear meltdown (hereinafter: triple disaster) on non-Japanese employees. Specifically we focused on three types of foreign employees, namely classic expatriates, locally hired foreigners and frequent fliers. This research combines strategic international business issues at a case of a disaster.

This study builds on Caprar's (2011) argument, that foreign managers at an affiliate abroad are not automatically a homogeneous group. That leads to differences in the types of foreign employees other than expatriates. There is evidence that expatriates are assigned for headquarter related reasons (Selmer and Luring, 2011; Edstroem and Galbraith, 1977). Expatriates benefit by a higher salary and also numerous other fringe benefits, put in their expatriation package. This includes a second salary at the host countries, free housing and a yearly paid vacation retreat in this case to Germany offered at a business class flight.

In contrast, locally hired foreigners are contracted to the subsidiaries with a comparatively low payment, similar then that of locals (in that case of regular Japanese employees). Locally hired foreigners are people who often came attracted to Japan by study and research programs. After the programs end, some find themselves in a situation that they do not want to leave the country anymore and may accept the relatively bad conditions. They enjoy relatively few, if any fringe benefits (Fayol-Song, 2011). This leads to a so called "glass ceiling", created through expatriate conditions versus the local contracted ones. Besides, also locals as of country of origin, in this work Japanese, may fear unbalances not only at the payment or fringe benefit side but also disadvantages in terms of their career development (Fayol-Song, 2011). For this reason, firms such as Siemens do not anymore encourage managers to expatriate from their headquarter for more than five years. This understanding is based on the belief that a longer tenure in a given country will bring bigger problems to reintegrate after coming back to the headquarter (Rogers, 1999).

Frequent fliers are the most flexible type. These managers either directly come from the headquarters, or they may visit several offices in Asia, each for a short time. There would be reason to successively send expatriates to several Asian headquarters for building up Asian experts to serve the headquarters at the home country, in this case to Germany. As frequent fliers change their location frequently, their commitment to a given subsidiary should be low. They may leave a subsidiary easily in case of an emergency and /or do not come back to it.

We base our study on the Japan disaster in March 2011. Reflective pieces from the popular press illustrated how people in Tohoku area of Japan were affected (Petrova, 2012). Japanese media also informed about the economic impact of the disaster on big Japanese firms (Matsuo, 2012). However, there is real scarcity of academic research into the disaster's impact. Especially the effect of the triple disaster on foreign employees in Japan represents a significant research gap. To the knowledge of the authors, there is no research conducted on this topic. Information available about foreign affiliated firms is based on anecdotal evidence from newspapers. For instance, H&M closed 9 stores in Kanto area on March 15th (Ueda and Takeuchi, 2011). Likewise, German's BASF changed its Japan headquarter's location shortly after the triple disaster from Tokyo to Nagoya and Osaka (Nihon Keizai Shinbun, 2011). In the same vein, Volkswagen group Japan sent 9 of its 12 expatriates home to Germany (Yomiuri Shinbun, 2011). As a further example, another German multinational, SAP sent its employees temporarily to Germany and relocated the office temporarily to Osaka (Ogura, Oda and Tanita, 2011) and subsequently returned to Tokyo on March 24th (Yomiuri Shinbun, 2011).

In this study, we go beyond anecdotal evidences and investigate how the three types of foreign managers differ in their responses to a disaster. Our study is based on a large sample of top managers in Japan-based German subsidiaries. Thus, the present study fills a large gap in the literature and also addresses important issues related to natural disasters' impact on foreign employees. Specifically, we address the following two research questions:

Q1: How do the reactions of three types of foreigners such as expatriates, locally contracted and frequent fliers differ regarding the post- triple disaster actions?

Q2: How do respondents' assessments differ (Japanese versus German respondents) with respect to the three different types of foreign employees?

The paper builds on institutional theory as a framework. We make at least two contributions to the literature. First, it demonstrates how different types of foreign employees differ drastically in belongingness, embeddedness and affiliation with the host countries' subsidiaries. Second, we show how "jolts" or exogenous shocks as mechanisms related to changes in institutions (Meyer, 1982; Meyer et al., 1990; Haveman et al., 2001) affect types of foreign employees differently. The remainder of the paper is structured as follows. We

proceed by first discussing the relevant theory and developing hypotheses. Next, we discuss the methodology. Then, we discuss the results. The next section provides discussion and at the end of the paper, we conclude with final remarks.

### **Theory and Hypotheses Development**

The approach used in this research is based on institutional theory, which covers de-institutionalization and re-institutionalization of social practices, cultural values and beliefs (North, 1990). Foreigners at subsidiaries are divided in expatriates, local hired foreigners and in frequent fliers. There is empirical evidence that managers' perceptions depend on their environment (Gerpott and Neubauer, 2011; Gerpott, 2009; Mueller-Stewens, 2010).

There is evidence that the number of expatriates decreases. Also at other countries such as in China, there is a relative decline of expatriates although the total number is still increasing (Fayol-Song, 2011). There is a current belief among multinational managers that localization creates benefits for a firm above the often used argument to reduce costs. Also an ease of communication in the subsidiary and the communication to local customers will increase by locally-hired employees (Fayol-Song, 2011, Hailey, 1993). In spite of this development, firms nowadays employ all three types of foreigners. In this, the localization of management is not a random process. Many firms switch their expatriates to local positions, or staff new positions with local hired foreigners than with expatriates. Localization can be categorized into three forces: regulatory, normative and cognitive.

We try to explain this with the framework of institutional theory. Multinational firms compel to localize their personnel to be able to comply with the regulations and the changes in a given market. In other words, normative forces designate normative rules. Localization of expatriates can be considered as an adaption to changing rules. More flexibility in operating with other foreigners in the market gives subsidiaries advantages besides the poor cost argument to replace expatriates with local hired foreigners, or to hire them instead of expatriates. There is a higher skill transfer by locals to the local market and there is also the difficulty to successfully back transfer expatriates after the assignment. Both can be successfully accomplished or circumvented by a localization strategy (Hauser, 2003).

We argue that the three types of foreign managers differ in their social practices and cultural norms. North (1990) defines institutions as 'macro-level rules of the game' (p. 27), which consist of three areas. First area is of formal constraints such as rules, laws, constitutions. Second area is on informal constraints such as norms of behavior, conventions,

and self-imposed codes of conduct. Finally, third, macro-level rules of the game consist of their enforcement characteristics (North, 1996, p. 344). Dickson et al. describe institutional theory as ‘a theory of legitimacy seeking’ (Dickson et al., 2004, p. 81). In this, legitimacy can be mapped with ‘legally sanctioned behavior’, ‘morally governed behavior’ and ‘recognizable, taken-for-granted behavior’ (Scott et al., 2000, p. 238). In this paper, we focus especially on the second group to investigate norms and behavior associated with our three types of foreign managers.

This issue relates to foreign subsidiaries. It is important to note that foreign subsidiaries differ according to the type of people in organizations. For instance, a locally hired foreigner is likely to have a different behavior in the host country to locals, to governments and to other firms than a native in that country. Locally hired foreigners may better understand locals than expatriates. Local hired foreigners, also known as self initiated expatriates (Peltokorpi and Froese, 2009) may outperform expatriates in effective communication to locals in the office. Also, prior researchers have noted that expatriates may feel the assignment more “as a passing through their country of assignment rather than viewing themselves as a part of the local operation’s long-term development” (Hechanova et al, 2003, p. 227).

Expatriates have close links to the headquarters. That means expatriated manager differ to locally hired ones’ even if both may be German citizens. While locally hired foreigners connect subsidiary employees, expatriates connect the headquarters to the top of the subsidiaries. Besides, expatriates connect the subsidiaries to the headquarters with communication (Bruning et al. 2011). In both cases, competition is a driving force behind an organization’s input and output (Dickson et al., 2004; Kimberly, 1981). People in organizations are embedded within larger networks, which generate formal and informal pressures to the actors (Pfeffer, 1981). For instance, companies may send expatriates into a foreign based subsidiary to legitimize their activities thus acting in a polycentric way (Wind et al., 1973). Likewise, Abrahamson and Fombrun (1994) argue that the structure of inter-organizational value-added networks ‘both induces and reflects the existence and persistence of more homogeneous macro-cultural beliefs about boundaries, reputations, and strategic issues’ (p. 730).

In this paper, we argue in favor of different institutional behaviors of the three types of foreign managers. As North (1990, p. 6) further noted: ‘although formal rules may change overnight as the result of political and judicial decisions, informal constraints embodied in customs, traditions, and codes of conduct are much more impervious to deliberate policies’.

As to foreign employees in a Japan-based German subsidiary, the real issue thus concerns overcoming informal institutions. That is not to say, however, that institutions do not change at all (Parto, 2005).

(Hypotheses development) Locally hired foreign managers are likely to have a higher level of belongingness to the subsidiary than expatriates sent by headquarters. Locally hired foreign managers are not only contracted to the Japanese subsidiary, they also may lack a place to go at the headquarters in a case of emergency. Frequent fliers tend to visit many different subsidiaries. This means that frequent fliers should have the lowest level of belongingness to foreign based subsidiaries.

After an earthquake disaster, expatriates should leave the subsidiaries and frequent fliers should prefer to visit other countries (instead of going back to the Japanese subsidiaries). Therefore, the three types should differ in their action.

H.1: Following a disaster, expatriates will leave but local hired foreigners will stay at the subsidiary. Frequent fliers will not come again to the subsidiary.

Institutional theory can be used in investigating the power from the affiliate top management to the foreign managers. One part of this power concerns the influence of the affiliate top management to hold foreign managers back at their affiliates in a time of a disaster. That becomes an important issue at the time foreign managers actually would prefer to leave it. In this vein, we tested the extent to which subsidiaries faced “difficulties in holding their managers back” to the subsidiaries. The loosest type of manager, the frequent fliers should have been most difficult to successfully hold back at the subsidiaries. A reason for this is that frequent fliers have many other alternatives where they can go to in a case of emergency. Also expatriates should have been difficult to hold back. They do not have as many alternatives as frequent fliers; however, they have the headquarter to go back in a case of emergency. In contrast, as locally hired foreigners may not have such a close connection to the headquarters at Germany or other alternatives to go to, they should be relatively easy to hold back.

H.2: Following a disaster, frequent fliers and expatriates will be more difficult to hold back at the subsidiary than locally hired foreigners.



Institutional theory can also be used to describe changes. The next item deals with the hardship caused at the subsidiary due to the departure of foreigners. That is, we investigated in our first and second hypotheses to what extent foreigners left and to what extent it was difficult to hold them back if they wanted to leave the subsidiaries. Additionally, we now further investigate to which extent hardship at subsidiaries occurred, caused through sudden departures of foreign employees. It would be reasonable to believe that subsidiaries report about a higher hardship when locally hired foreigners leave compared to when expatriates leave it. Reasoning for this is that local hired foreigners are seen as a part of the subsidiary. They act as intermediaries between expatriates and locals in the office and their departure should cause trouble. Also, a sudden departure of frequent fliers should less likely affect subsidiaries. This is because frequent fliers should not have enough time to spend at subsidiaries to make them familiar with the environment and with the managers at the subsidiaries.

H.3: Following a disaster, the departure of locally hired foreigners will cause a higher hardship as when expatriates leave it or frequent fliers do not come back to the subsidiaries.

The forth item concerns the extent to which the respondents still considered it difficult to get foreigners back to the subsidiaries. We place this question even after 12 month since the disaster occurred, as we believe German subsidiaries in Japan still may face difficulties to attract talents from abroad. We suggest that it is more difficult to get locally hired managers back to Japan instead of expatriates or frequent fliers. This reasoning is based on the idea that if locally hired foreigners once left the subsidiaries, they separated from "their firm". If someone separates from the Japanese subsidiary it may be difficult to go back there. In contrast, if expatriates leave their subsidiaries, they may have a reason that the headquarters asked them to temporary return to Germany. Also, expatriates are mentally closer to the headquarters. If they are asked to get back to the headquarters, they may not have had a chance to decline. In return, expatriates are probably send back to their (Japanese) subsidiaries after a while. If locally hired foreigners decide to get out of the subsidiary, it might be more difficult to get this type of managers back to the subsidiaries.

H.4: Following a disaster, locally hired foreigners are more difficult to attract back to the subsidiaries, than expatriates or frequent fliers.

As an interdisciplinary item without further explicit hypothesis development, we investigated the subsidiary dependency on foreigners. For example, we asked “how important do you think are foreigners for your subsidiary? In this vein, we divided three groups to see the importance of each type. Also, in a separate test, we analyzed how the respondents’ nationalities were related to various responses. In this vein, we did post-hoc analyses to see, if it matters whether the respondents were German or Japanese citizens.

### **Methodology**

A questionnaire was developed and administered in March 2012, one year after the Tohoku triple disaster. The respondents consisted of top managers of all German firms in Kanto area of Japan. These top managers were requested to share their experiences of the triple disaster and the impact on them for their affiliates. The questionnaire was developed based on exploratory research conducted by the first author in Kobe and in Tokyo in February 2012. In all, 244 Kanto-based German firms were contacted.

The distribution was supported by the German Chamber of Commerce in Tokyo. An electronic message from the Chamber was sent to top managers of all member firms, which were requested to participate in the research project. The participation of the Chamber led to the positive effect that the top managers received the invitation to participate directly via the mail account of the Chambers’ chief. The pre-tested questionnaire was back translated by two Japanese mother tongue speakers and sent out in English and in Japanese. This ensured managers to choose their preferred language in answering the questionnaire. Out of the 244 questionnaires 86 returned with a response rate of 35.2%.

Multiple items were used to measure the three constructs of the analyses, such as expatriates, locally hired foreigners and frequent fliers. Thus, ANOVA analyses were conducted to investigate differences between the three types. Additionally, Turkey post hoc analyses were conducted to investigate the relationships of all three types. Furthermore, independent samples t-tests were conducted for investigating differences in regard to the respondents, whether they were German or Japanese. Appendix presents the scales and items. All three constructs were measured with metric five-point Likert-scale (strongly disagree=1,

strongly agree=5). For the constructs related to expatriates' tendency to leave Japan, items such as the following are used: "Many of them left home right after the triple disaster".

In addition, the first author conducted follow up interviews with a range of 14 top managers from different firms. These interviews took place at Kanto area in June 2012, another 3 month after the questionnaire study. That means, above the 86 responses from the questionnaires, more detailed insight could be accumulated by asking more detailed questions. In this, the first author took the individual questionnaire printed out to the meetings with the participants. Opinions and more detailed information in several research areas were investigated.

## Results

Table 1 presents descriptive statistics and mean differences between expatriates, locally hired and frequent fliers.

*Tables 1 and 2 about here*

The ANOVA (Table 2) results show the following significant relationships. The three types of employees leaving the country following the triple disaster were perceived differently ( $p < 0.01$ ). Post hoc tests reveal that expatriates were perceived to exhibit a higher tendency to leave their subsidiaries than locally-hired managers. Frequent fliers showed the highest tendency to leave or not to come back to the subsidiary at the aftermath of the disaster (Table 3). H 1. is, therefore, supported.

*Table 3 about here*

Difficulties to keep foreign employees failed to receive statistical support. There is a difference in regard to the actual hardship participants anticipated in case foreigners left their subsidiaries ( $p < 0.05$ ). Interestingly, when locally-hired managers left, respondents saw a lower hardship than when frequent fliers left / did not come back to the subsidiaries. This is in counter to our expectations of H. 3. Finally, there was a difference between the three types' perceived tendency to return to the subsidiaries even one year after the triple disaster ( $p < 0.1$ ). H.4. therefore is partly supported.

In our second step, we divided respondents in German and in Japanese, to see further differences (Table 4). The average of responses to items related to difficulties in retaining expatriates was 2.8 for German respondents compared to 4.0 for Japanese respondents on a five point Lickert-scale ( $p < 0.05$ ). This means that Japanese respondents considered it more difficult to hold expatriates back to their subsidiaries.

<i>Table 4 about here</i>
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In contrast, German responded that locally hired managers were more difficult for them to be hold back. Responses to the items measuring perceived difficulties to hold back locally-hired managers differed significantly across German and Japanese respondents. The average response to difficulties to hold back locally-hired managers to Japan was 1.9 for German respondents compared to merely 1.3 for Japanese ( $p < 0.1$ ).

German responded furthermore, that locally hired foreigners are still nowadays (one year after the triple disaster) difficult to attract to their subsidiaries in Japan (mean=1.8). In contrast to this, Japanese respondents did not see these difficulties. Japanese respondents answered with a merely 1.08 ( $p < 0.05$ ).

In regard to hold or attract frequent fliers to come back to the Japanese subsidiaries, German respondents' average response was 3.8 compared to Japanese respondents' 2.0. The independent samples T-test shows a significant difference between the two groups ( $p < 0.001$ ).

## **Discussion**

We investigated how the triple disaster impacted three types of foreigners working at Japan based German subsidiaries, namely classic expatriates, locally hired foreigners and frequent fliers. As stated in our hypothesis part, in several areas expatriates' behaviors differed from those of locally hired ones. Likewise, locally hired managers exhibit different behaviors following the triple disaster compared to frequent fliers. That can be explained by institutional theory, based on which we can see that different types of foreigners differ in their response to a natural disaster.

Expatriates' higher tendency to leave their subsidiaries can be attributed to several plausible reasons. There might have been a lack of belongingness for them to the subsidiary. Also, the fear of radiation might have been higher for expatriates as they could not understand the Japanese environment and were to a much higher degree dependent on foreign

TV channels at the time of the triple disaster. Besides the own impressions having been in Japan at the time of the disaster, it could be verified by interviews that many of the foreign TV stations painted a much worse picture of the triple disaster than the Japanese news casters. Also, expatriates had a home to go to, in contrast to locally hired foreigners who might not have had this chance to retreat. Expatriates might have been “ordered” home by the headquarters. Furthermore, because of their family and friends, expatriates might have been “asked” to depart Japan immediately to a much higher extent than local hired foreigners. As we suggested at our frequent flier hypotheses, they left easily or did not come again to Japan right after the triple disaster. According to our theory, frequent fliers are not as embedded as expatriates or locally hired foreigners to the subsidiaries.

We also showed that German or Japanese respondents differ in their perceptions of foreigners’ responses to the triple disaster. Japanese respondents perceived it more difficult to retain expatriates. In contrast, German respondents perceived a higher level of difficulty to retain locally hired and frequent fliers. It is, furthermore, interesting to note that German respondents still nowadays see difficulties in having local hired coming back to their Japan based subsidiaries.

Our findings have implications for theory, management practice and public policy. Theoretically, the results of this study suggest that researchers should be cautious about treating foreigners at a foreign subsidiary as a homogeneous group. Instead, we suggest that future studies better divide foreigners in different categories based on different degrees of belongingness, to be embedded or affiliated to the host country. One way would be to divide them into three types as discussed in this paper: expatriates, local hired foreigners and in frequent fliers. This separation can be explained by our institutional theory setting. Different types of foreigners can be distinguished according to their characteristics. While expatriates have a “morally governed behavior” to their headquarters, locally hired foreigners in contrast have it to their local environment in the subsidiaries.

Secondly, using institutional theory, it can be argued that respondents generally differ in their concern to have difficulties to retain foreigners. At our case, Japanese respondents see difficulties to retain expatriates and German respondents see difficulties to retain local hired and frequent fliers. The norms allow Japanese respondents to be much closer to local hired foreigners. Expatriates are closer linked to German respondents (who might be indeed an expatriate too, or a former expatriate).

From a practical point of view, several implications can be drawn from our findings. Firstly, subsidiaries may want to differentiate their types of foreigners. In a case of a disaster, they do not respond in the same manner. For instance, expatriates prefer much more often to leave a subsidiary than locally hired foreigners did. That means, it may be worthwhile for subsidiaries to recruit local hired foreigners. Besides the often stated cost advantages, they are also more inclined into the activities of the subsidiaries. In a disaster, local hired foreigners are the more reliable choice to continue their activities.

Secondly, the headquarter needs to be prepared to replace expatriates into other locations than to send them just back to the headquarters (in this case to Germany). Bigger firms have offices in many other Asian locations and a sending policy to Asian offices may benefit the offices as well as the expatriates themselves. Expatriates would be closer at the Japan based subsidiary and still in Asia. They could be more productive than at the headquarters in Germany.

In public policy terms, we first recommend firms not only to focus on cost saving when preferring locally hired foreigners at the subsidiaries over expatriates. Also at a disaster, subsidiaries have a lower evacuation rate and a better functioning of a subsidiary when being equipped rather with locally hired than with expatriates. Secondly, this research shows that the respondents' country of origin has a very high importance as answers differ if the respondent is German or Japanese.

Our surprising finding, that the lack of frequent fliers brings more hardship than that of locally hired employees is predominantly stated by Japanese respondents (table 4). We explain this finding that Japanese respondents have a closer feeling to "their own" staff, including local hired foreigners. Some local hired foreigners might be for top managers already similar to Japanese managers, so that their action is not seen as a foreign one but rather as one of their firm employees' reactions. In that, when frequent fliers leave a subsidiary or do not come back to it, this is considered for Japanese as a high impact event. Also, responses show that only very few locally hired foreigners left the subsidiaries, so that there was a small overall impact.

Naturally, there are limitations to our analysis that caution should be exercised in generalizing our findings and interpreting our conclusions. Firstly, an important limitation of the present study is that our investigation is based on a single country, Japan. Secondly, even if the Lickert-scale questionnaire is popular to conduct, its measure from 1 to 5 is incomplete by definition (Richardson and McKenna, 2003; Richardson and Mallon, 2005). Not all

aspects of foreigners in such an event might be covered. Besides, the three types could be challenged on the basis that some previous expatriates might have become localized in recent years. In this sense, some firms tend to give expatriates the choice after their first assignment to either return to the headquarters to Germany, to assign to another country or to continue at Japan but to local conditions as a locally hired foreigner. That means some of the foreign local hired in fact might have been expatriates at an earlier stage of their career and may still have a relatively close connection to their headquarters. In an event of a disaster, like it happened in March 2011 in Japan, they would still have a place to go in Germany. A similar point can be made about frequent fliers. Some of these managers are mainly based in Asia; others come straight from the headquarters in Germany. Also, there is reason to believe that Asian frequent fliers, even if German citizens, should be easier to attract to come back to the Japan-based subsidiaries than others who travel from the headquarters to all over the world (e.g. to Asia, Europe and the US).

Thirdly, the data may be biased on the one hand due to the respondents' memory distortion. That is, the respondents might have forgotten about the events, as the questionnaire survey was conducted one year after the triple disaster. It is also possible that some of the respondents were not in Japan at the time of the disaster. However, even if this situation needs to be considered, an advantage for a one year time gap is that participants had enough time to reflect the whole situation. Also, the first author interviewed 14 respondents in follow up interviews and all of them were top managers at the subsidiaries and also in Tokyo at the time of the event.

Fourthly, the method used was cross-sectional in its nature. It was not possible to conduct this questionnaire study twice and instead, follow up interviews were conducted. The authors are aware that longitudinal studies would have produced richer and more valid results (Menard, 1991).

Fifthly, the research deals solely about German firms. This is based on convenience. As the first author is a German, contact to German firms was easier. Some of the contacts to top managers of German firms existed even before the occurrence of the triple disaster. Also, at the follow up interviews the German language was convenient to choose as some of the respondents spoke about very personal experiences they faced at the aftermath of the triple disaster. Furthermore, the distribution of the questionnaire was actively supported by the German Chamber of Commerce at Tokyo in sending a link of an internet based questionnaire to all its members. These members turned out to be often the personnel contacted top

managers by the chief of the chamber. Almost all of them are in the leading position at their firms. Finally, other countries had different approaches to the triple disaster. While the French Embassy suggested all French citizens to leave Japan following the triple disaster, the British did the opposite. The British Embassy stayed at Tokyo and tried to calm down their British citizens. The author decided therefore just to investigate how three types of foreigners at German subsidiaries were impacted. Future research in this area may try to eliminate some of the weaknesses of the current investigation as well as to extend its scope.

## **Conclusion**

This investigation explored the March 2011 Great East Japan Earthquake impact on three types of foreigners at German subsidiaries. As such, it is the first study of its art to investigate the impact of a disaster on foreign employees at subsidiaries. Consequently, the findings of this study contribute to the yet limited literature on foreigners apart from expatriates. Such new knowledge is important to reveal differences between expatriates, local hired and frequent fliers (Peltokorpi and Froese, 2009).

The results indicate support for our hypotheses that expatriates left the subsidiaries to a higher degree than locally hired foreigners. Frequent fliers were the type of managers with the highest departure rate. However, respondents saw a higher hardship at the departure of frequent fliers than at local hired foreigners.

The findings depend also on the nationality of the respondents. While Japanese respondents expressed more concern to retrain expatriates, German respondents saw more difficulties to retain locally hired and frequent fliers at their subsidiaries.



Attachment:

Table 1:  
Descriptive statistics: mean differences between expatriates, locally hired and frequent fliers.

	Expatriates			Locally Contracted			Frequent fliers		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Went home/ did not come again	57	3	1.861	53	1.87	1.455	55	3.38	1.661
Difficulties holding them back	57	3.11	1.78	50	1.68	1.22	56	3.41	1.682
Hardship because of Leave	57	1.91	1.272	48	1.44	0.965	53	2.08	1.269
Nowadays back to Japan	56	2.07	1.373	50	1.56	1.091	56	1.71	0.986
Dependency on Foreigners	56	2.27	1.198	50	2.54	1.631	54	2.26	1.376

Table 2: ANOVA results

		Sum of Squares	df	Mean Square	F	Sig.
Left home	Between Groups	66.725	2	33.362	11.929	0
	Within Groups	453.057	162	2.797		
	Total	519.782	164			
Difficulty to keep	Between Groups	4.054	2	2.027	1.288	0.279
	Within Groups	247.14	157	1.574		
	Total	251.194	159			
Hardship because of leave	Between Groups	10.966	2	5.483	3.897	0.022
	Within Groups	218.072	155	1.407		
	Total	229.038	157			
Nowadays back to Japan	Between Groups	7.401	2	3.701	2.731	0.068
	Within Groups	215.463	159	1.355		
	Total	222.864	161			
Dependency on foreigners	Between Groups	2.627	2	1.314	0.666	0.515
	Within Groups	309.773	157	1.973		
	Total	312.4	159			

Table 3: Post-hoc tests (multiple comparisons), Tukey HSD test

Dependent Variable	(I) local contracted=1, expatriate=2, frequent fliers =3	(J) local contracted=1, expatriate=2, frequent fliers =3	Mean Difference (I-J)	95% Confidence Interval			
				Std. Error	Sig.	Lower Bound	Upper Bound
Left home	1	2	-1.13*	0.31	0.00	-1.8869	-0.3772
		3	-1.51*	0.32	0	-2.2753	-0.7525
	2	1	1.13*	0.31	0.00	0.3772	1.8869
		3	-0.38	0.31	0.45	-1.1295	0.3659
	3	1	1.51*	0.32	0	0.7525	2.2753
		2	0.38	0.31	0.45	-0.3659	1.1295
Difficulty to keep	1	2	-0.23	0.24	0.60	-0.8075	0.3429
		3	-0.39	0.24	0.24	-0.9807	0.1898
	2	1	0.23	0.24	0.60	-0.3429	0.8075
		3	-0.16	0.23	0.77	-0.7297	0.4033
	3	1	0.39	0.24	0.24	-0.1898	0.9807
		2	0.16	0.23	0.77	-0.4033	0.7297
Hardship leave	1	2	-0.47	0.23	0.10	-1.0247	0.0751
		3	-.63*	0.23	0.02	-1.1973	-0.0787
	2	1	0.47	0.23	0.10	-0.0751	1.0247
		3	-0.16	0.22	0.75	-0.6988	0.3724
	3	1	.63*	0.23	0.02	0.0787	1.1973
		2	0.16	0.22	0.75	-0.3724	0.6988
Nowadays back to Japan	1	2	-0.51	0.22	0.06	-1.0473	0.0244
		3	-0.15	0.23	0.77	-0.6901	0.3816
	2	1	0.51	0.23	0.06	-0.0244	1.0473
		3	0.35	0.22	0.23	-0.1633	0.8776
	3	1	0.15	0.23	0.77	-0.3816	0.6901
		2	-0.35	0.22	0.23	-0.8776	0.1633
Dependency on foreigners	1	2	0.27	0.27	0.58	-0.3745	0.9188
		3	0.28	0.27	0.56	-0.3716	0.933
	2	1	-0.27	0.27	0.58	-0.9188	0.3745
		3	0.00	0.26	0.99	-0.6253	0.6425
	3	1	-0.28	0.28	0.56	-0.933	0.3716
		2	-0.00	0.26	0.99	-0.6425	0.6253

\*. The mean difference is significant at the 0.05 level.

\*. The mean difference is significant at the 0.05 level.

Table 4: Respondents' nationality

Group Statistics: Expatriates					
	Nationality Respondent 1=German; 2=Japanese	N	Mean	Std. Deviation	Independant Samples T-test
Leave Home	German	35	2.94	1.846	
	Japanese	12	3.58	1.929	
Difficulty to retain	German	34	2.88	1.665	5%
	Japanese	13	4	1.732	
Hardship leave	German	34	1.94	1.301	
	Japanese	13	2.23	1.481	
Nowadays back to Japan	German	34	2.29	1.36	
	Japanese	13	1.69	1.251	
Dependency on Expatriates	German	33	2.27	1.153	
	Japanese	14	2.5	1.454	

Group Statistics: Local hired foreigner					
	Nationality Respondent 1=German; 2=Japanese	N	Mean	Std. Deviation	Independant Samples T-test
Leave Home	German	31	1.71	1.27	
	Japanese	15	2.2	1.821	
Difficulty to retain	German	29	1.93	1.412	10%
	Japanese	14	1.29	0.825	
Hardship leave	German	27	1.48	0.975	
	Japanese	14	1.43	1.089	
Nowadays back to Japan	German	30	1.8	1.297	5%
	Japanese	13	1.08	0.277	
Dependency	German	29	2.93	1.624	
	Japanese	14	2.21	1.762	
Dependency on Local Hired	German	29	2.93	1.624	
	Japanese	14	2.21	1.762	

Group Statistics: Frequent fliers					
	Nationality Respondent 1=German; 2=Japanese	N	Mean	Std. Deviation	
Leave Home / Absence	German	35	3.4	1.666	
	Japanese	13	3.23	1.787	
Difficulty to retain	German	35	3.8	1.568	1%
	Japanese	13	2.08	1.382	
Hardship leave	German	33	1.94	1.171	
	Japanese	12	2.25	1.422	
Nowadays back to Japan	German	35	1.66	0.938	
	Japanese	13	1.46	0.877	
Dependency on Frequent Fliers	German	33	2.24	1.37	
	Japanese	14	2.07	1.385	

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