Repatriates' Knowledge Transferring Behavior in Multinational Companies: a Comparison with Non-repatriates, Focusing on Motivation, Job Characteristics and Perceived Human Resource Management[1]

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INTRODUCTION

For more than twenty years, knowledge transferring behavior has increasingly been recognized as an indispensable factor in promoting global competitiveness for multinational enterprises (MNEs) (Yoshimura, 2020).

This study is the second in a series on repatriates and non-repatriates who are employed at MNEs' head offices in the home country focusing on knowledge transferring behavior related to variables on research and development (R&D) workers. Previous research has examined the differences between repatriates and non-repatriates in terms of demographics, type of knowledge transferring behavior, and knowledge exchange networks.

In this research, the author focuses on job characteristics, motivation to transfer knowledge, and perceived human resource management (HRM) practices that could enhance knowledge transfer behavior.

To prevent the spread of the COVID-19 pandemic, MNEs have not been able to dispatch employees to foreign countries as frequently as before. MNEs may have to seek other methods to activate repatriate knowledge transfer (RKT), as existing repatriates have a higher scarcity value (Yoshimura, 2020, p. 63).

A recent survey has shown that expatriates identify business as one of the areas most affected by the pandemic (Expat Insider, 2021).

This research attempts to identify the differences between repatriates and their colleagues, who are non-repatriates, at the MNEs' head office in the home country on related variables of knowledge transfer behavior. This research focuses on the types of knowledge transferred by repatriates at their workplace compared to their colleagues.

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First, R&D knowledge repatriates have has not been adequately researched (Yoshimura, 2020). If one could identify the knowledge transfer behavior types of R&D workers, it would be useful for understanding RKT behavior. Second, RKT studies that compare the knowledge-sharing behavior of repatriates and their colleagues at the MNEs' head offices are still limited. A comparison would help in identifying whether differences exist in the knowledge transfer behavior between repatriates and non-repatriates (Yoshimura, 2020). The results would also further our understanding of the knowledge transfer behavior of R&D repatriates in the workplace.

Repatriates' intrinsic and extrinsic motivation

Szulanski (2000) has pointed out that, if a worker transfers their knowledge to a colleague, they could lose their personal competitive advantage within the organization, so the worker needs some motivation to transfer knowledge to overcome this obstacle. Some empirical studies have found that intrinsic motivation positively affects knowledge transfer (Horie, Inuzuka & Ikawa, 2007; Yoshimura & Tanaka, 2016).

Intrinsic motivation has a positive effect on knowledge transferring intention among R&D workers (Yoshimura and Tanaka, 2016). Horie et al. (2007) also found that intrinsic motivation is positively related to an intention to share knowledge among R&D workers.

Previous research (Yoshimura, 2020) that compared repatriates and non-repatriates has shown that repatriates that have been transferred more frequently have more practical knowledge than non-repatriates, especially in areas such as science and technology knowledge for problem solving, knowledge and information on business, and information regarding the company's products. Llois and Foss (2016) found that intrinsic motivation and working environment complementally affect the knowledge transfer behavior of intellectual workers. Repatriates may have a higher intrinsic motivation to work or to transfer knowledge compared to non-repatriates.

This study proposes hypotheses H1-1 and H1-2:

H1-1. Repatriates have a stronger intrinsic motivation to work than non-repatriates.

H1-2. Repatriates have a stronger intrinsic motivation to transfer knowledge than non-repatriates.

Motivation generally consists of two sub-concepts: intrinsic motivation and extrinsic

motivation. Intrinsic motivation refers to motivation that is driven by intrinsic qualities, such as preferences, emotions, or values. Extrinsic motivation, on the other hand, refers to motivation driven by external factors, such as compensation. In contrast to the relationship between intrinsic motivation and knowledge transferring behavior, the relationship between extrinsic motivation and knowledge transferring behavior has not yet been investigated sufficiently to reach a conclusion.

This study also proposes hypotheses H1-3 and H1-4:

H1-3. Repatriates have stronger extrinsic motivation to work than non-repatriates.

H1-4. Repatriates have stronger extrinsic motivation to transfer knowledge than non-repatriates.

Job characteristics

Repatriates could be more motivated when they are assigned jobs where they need their overseas experience or their particular knowledge to do well (Black, Gregersen, Mendenhall. & Stroh, 2001). However, some studies have found that some repatriates could not get the jobs they wanted in their home country. Japan Institute of Labour (JIL; 2001) found that nearly a quarter of expatriates worry about their future work opportunities at home and are concerned that work in their home country would not require overseas experience or knowledge.

On the other hand, MNEs try to assign repatriates overseas related, autonomic, and creative jobs to make the most of repatriates' knowledge and experience. Companies want repatriates to use their unique expatriation and repatriation experiences to work for the organization. Repatriates may have different perceptions about their jobs than non-repatriates. Therefore, this study proposes hypotheses H2-1 to H2-6:

H2-1. Repatriates have more autonomy in their jobs than non-repatriates.

H2-2. Repatriates have more freedom to explore something new than non-repatriates.

H2-3. Repatriates' work requires more creativity and new ideas than non-repatriates' work.

H2-4. Repatriates' work requires more cooperation within a team than non-repatriates' work.

H2-5. Deadlines/time limits are tighter in repatriates' work than in non-repatriates'

work.

H2-6. Repatriates' work requires more frequent exchanges with overseas subsidiaries/affiliates than non-repatriates' work.

Perceived human resource management of repatriates

HRM research has mainly been conducted at an organizational level. More recently, research has started to focus on employees' perceptions of their company's HRM practices. First, HRM practices are one way for an employer to signal their willingness to invest in and support their employees (Kohn, 1993, p. 334). Second, employees' perception of HRM might affect their work attitude, motivation, or behavior more directly than at an organizational level. In fact, Andreeva and Serveena (2016) have confirmed that perceived HRM affected school teachers' knowledge-sharing behavior. Yoshimura (2020) found that repatriates transferred more business-related knowledge and had larger knowledge exchange networks.

Therefore, this study proposes H3 (H3-1 to H3-12).

Hypothesis H3. Repatriates perceive information from HRM as more applicable than non-repatriates is partially supported.

H3-1. Repatriates perceive more strongly than non-repatriates that personnel evaluations emphasize collaboration with team members.

H3-2. Repatriates perceive more strongly than non-repatriates that personnel evaluations emphasize the performance of the team as a whole rather than individual performance.

H3-3. Repatriates perceive more strongly than non-repatriates that personnel evaluations emphasize individual contributions to the team's performance.

H3-4. Repatriates perceive more strongly than non-repatriates that R&D personnel are encouraged to share new knowledge and technology with other R&D personnel.

H3-5. Repatriates perceive more strongly than non-repatriates that research seminars within the company are periodically conducted to share new R&D information.

H3-6. Repatriates perceive more strongly than non-repatriates that R&D personnel who transfer knowledge/information/technology to other employees are highly evaluated.

H3-7. Repatriates perceive more strongly than non-repatriates that the utilization of

one's international social network is evaluated highly.

H3-8. Repatriates perceive more strongly than non-repatriates that R&D personnel who are returnees from long-term overseas assignments are evaluated highly.

H3-9. Repatriates perceive more strongly than non-repatriates that training to support R&D personnel dispatched overseas should be conducted.

H3-10. Repatriates perceive more strongly than non-repatriates that there are procedures for dispatching R&D personnel to work or study overseas.

H3-11. Repatriates perceive more strongly than non-repatriates that combinations of R&D experts from various research fields are emphasized when forming project teams.

H3-12. Repatriates perceive more strongly than non-repatriates that diversification in R&D personnel in terms of nationality is emphasized when forming project teams.

METHODS

Procedure

Data for this research are part of a larger dataset that was collated in 2015. The research team contacted a number of R&D companies, and ten companies agreed to participate in the research project. A total of 751 participants completed the online or paper questionnaire, and the response rate was 44.1%. From these, the author selected seven MNEs with overseas R&D units or departments and headquarters in Japan. A total of 643 participants were selected, and the available data percentage was 42.2%. Data from 632 participants who had answered the main measures as required were analyzed.

Japan was selected for this study as it has a long history of expatriation. Research on expatriates and repatriates in Japan started in 1980 and has been compiled for more than three decades (Japan Institute of Lobour, 2001). To address concerns about the possible misuse of data, the online and paper questionnaires' instructions stated that the data would be treated as confidential and would be accessed only by members of the research team.

Participants

A total of 632 R&D employees from MNEs met the type of knowledge criteria required for this study. Based on the accepted definition of repatriates—staff who had been dispatched overseas at least once—105 employees (16.6% of the 632 R&D

workers) were identified as repatriates for this research. The remaining 527 are referred to as non-repatriates working in R&D.

Yosimura (2020) developed a t-test on the demographics of repatriates and non-repatriates, which is similar to the one used in this study. On average, the repatriates were 42.42 years old and had worked at their present company for 16.49 years; female participants accounted for only 1.9% of the total. On the other hand, the non-repatriates were 39.1 years old on average and had worked at the company for 13.5 years; female participants accounted for 17.1% of the total.

In terms of responsibilities, 54.3% of the repatriates were in charge of research and 61.9% were in charge of development. Among the non-repatriates, 62.6% were in charge of research and 59.8% were in charge of development[2] or design. The participants worked in the following industries: manufacturing of transportation equipment (repatriates: 31.4%; non-repatriates: 7.8%), pharmaceuticals (repatriates: 29.5%; non-repatriates: 40.2 %), and manufacturing of electrical machinery, information, and communication electronics equipment (repatriates: 39.1%; non-repatriates: 52.0%) (Yoshimura, 2020).

Measurement

Motivation to work and motivation to share knowledge

Intrinsic and extrinsic motivation to work may affect RKT behavior. Participants were asked how they felt about their work/company and rated their responses on a scale of 1 (does not apply) to 5 (applies).

Intrinsic motivation to work was measured using the items IM1–IM4: preference for the present work, intention to continue the work, accomplishment in the work, and the importance of the work content. Extrinsic motivation to work was measured by three items EM1–EM3: the importance of salaries, promotion, and recognition at work.

Intrinsic and extrinsic motivation to transfer knowledge may affect RKT behavior in a stronger manner than their intrinsic or extrinsic motivation to work. Participants were asked what they thought about the transfer of knowledge and information and to rate their responses on a scale ranging from 1 (does not apply) to 5 (applies).

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[2] Multiple choices could be made on the scope of participants' current work. Therefore, the total of these percentages could exceed 100.

Intrinsic motivation to transfer knowledge was measured by three items IMKT1–IMKT3: preference for transferring knowledge to colleagues, tendency to transfer knowledge with no compensation, and intention to teach colleagues a locus of specialized knowledge. Extrinsic motivation to transfer knowledge was measured by three items EMKT1–EMKT3: motivated to transfer knowledge transferring because of progress in your own work, innovation or performance of your company, and your reputation.

Job characteristics

To measure the job characteristics of R&D workers, participants were asked how they felt about their present work and rated their responses on a scale ranging from 1 (does not apply) to 5 (applies).

Job characteristics were measured using six items: JC1–JC6. The job characteristics included a variety of concepts, including autonomy, creativity, teamwork, time restriction, and overseas information exchange.

Perception of human resource management

Perception of HRM practices refers to how individual employees perceive their company's HRM. A meta-analysis has revealed that HRM practices even affect innovation at an organizational level (Seeck & Diehl, 2017). In recent research on HRM, perceived HRM, which focuses on individual-level perceptions of HRM, has received more attention than organizational level studies.

MNEs execute various HRM practices to promote knowledge transfer by R&D workers. Our research team developed a measurement scale for HRM practices to enhance R&D workers' knowledge transfer behavior in the context of interview research[3]. The HRM scale measures twelve items (Table 1). Participants rated the applicability of HRM practices on a five-point scale, which ranged from 1 (does not apply) to 5 (applies).

Analysis

In this study, repatriates are compared with non-repatriates based on motivation, job

[3] We interviewed twenty-seven employees at eleven R&D MNEs, including MNEs with headquarters in Japan and five MNEs with overseas research offices. The interviewees were R&D or HR managers.

characteristics, and perceived HRM through a t-test.

RESULTS

The first set of hypotheses examines the motivations behind repatriates' behavior. Table 1 summarizes the results of H1-1. Three of the measures (IM1–IM3) indicate that repatriates do not have a stronger intrinsic motivation to work than non-repatriates, while IM4 suggests that repatriates have a slightly stronger intrinsic motivation to work. The hypothesis is, therefore, only partially supported.

Table 1 also summarizes the results of H1-2, indicating that repatriates only have a stronger extrinsic motivation than non-repatriates to work in EM2. The hypothesis is, therefore, only partially supported.

Table 1. Intrinsic/extrinsic motivation to work

Intrinsic/extrinsic motivation to work	R(mean)	NR(mean)	*t*-value
IM1. I like my present work.	4.03	4.01	0.230
IM2. I would like to continue my present work.	3.90	3.75	1.400
IM3. I often have a feeling of accomplishment in my present work.	3.58	3.50	0.757
IM4. I attach great importance to the content at my work.	4.19	4.04	1.754^{+}
EM1. I attach a great importance to salary at my work.	3.32	3.33	-0.165
EM2. I attach great importance to promotions at my work.	3.17	2.98	1.692^{+}
EM3. I attach great importance to receiving praise from my boss and colleagues at my work.	3.51	3.41	0.896

R=Repatriates, NR=Non-repatriates, multiple answers

$^{+}p<.10$

Table 2 summarizes the results of H1-3, indicating that repatriates do not have a stronger intrinsic motivation for knowledge transfer in IMKT1, IMKT2, and IMKT3 compared to non-repatriates. The hypothesis is, therefore, only partially supported.

Table 2 also summarizes the results of H1-4, indicating that repatriates only have stronger extrinsic motivation to transfer knowledge in EMKT2 compared to non-repatriates. The hypothesis is, therefore, only partially supported.

Table 2. Intrinsic/extrinsic motivation to transfer knowledge

Intrinsic/extrinsic motivation to transfer knowledge	R(mean)	NR(mean)	*t*-value
IMKT1. I like to provide knowledge and information to other people at my workplace to help them.	3.75	3.82	-0.700
IMKT2. I am willing to provide knowledge and technology that only I know to people at my workplace, even without reward.	4.08	4.14	-0.698
IMKT3. I am willing to provide the source of information (e.g., who is an expert in a specific field) to others without receiving a reward.	4.11	4.23	-1.379
EMKT1. My work goes more smoothly if I provide knowledge and information to other people at my workplace.	4.15	3.99	1.627
EMKT2. Innovation/improvement in my company's performance is more likely to occur if I provide knowledge and information to other people at my workplace.	4.12	3.93	1.851^{+}
EMKT3. My personnel evaluation will be better if I provide knowledge and information to other people at my workplace.	3.41	3.40	0.117

R=Repatriates, NR=Non-repatriates, multiple answers
$^{+}p<.10$

The second set of hypotheses considers repatriates' job characteristics. Table 3 summarizes the results of Hypothesis 2-1–2-6, which indicate that repatriates' job characteristics are more team oriented, time limited, and overseas oriented. However, the other responses show that repatriates' jobs do not have more autonomy and creativity than those of non-repatriates. These results show that H2-1, H2-2 and 2-3 are not supported, and H2-4, H2-5, and H2-6 are supported.

Table 3. Job characteristics

Job characteristics	R(mean)	NR(mean)	t-value
JC1. I have discretion over the content of my work and my work methods.	4.23	4.18	0.503
JC2. I can explore something new at work.	3.80	3.78	0.180
JC3. My work requires creativity and new ideas.	4.02	4.00	0.174
JC4. My work requires cooperation with a team.	4.30	4.02	3.324**
JC5. Deadlines/time limits are tight in my work.	4.17	3.79	3.970***
JC6. My work requires frequent information exchanges with subsidiaries/affiliates overseas.	3.63	3.04	4.058***

R=Repatriates, NR= Non-repatriates
**p<.01; ***p<.001

The third set of hypotheses examines perceived knowledge transfer promoting HRM applicability by R&D workers. Table 4 presents the results of Hypothesis 3-1–3-12, indicating that repatriates perceived stronger applicability for team evaluation (H3-1–H3-3), research seminars (H3-5), training for overseas dispatchers (H3-9), and project teams with diversity (H3-11–H3-12), thereby partially supporting the hypotheses. Table 4 also presents the opposite results of Hypothesis 3-8, indicating that repatriates did not perceive returnees from long-term overseas assignments more highly in their organizations. Hypothesis 3-8 is, therefore, not supported. Table 4 also shows no difference between repatriates and non-repatriates on encouraging knowledge sharing within the company, knowledge transfer evaluation, international social network evaluation, and procedures for dispatching overseas. Hypotheses H3-4, H3-6, H3-7, and H3-10 are, therefore, not supported. Hypothesis H3, which predicted that repatriates' perceived knowledge-sharing-related HRM as more applicable than non-repatriates, is, therefore, partially supported.

Table 4. HRM practices related to knowledge sharing

HRM practices	R(mean)	NR(mean)	t-value
Phrm1. Personnel evaluations emphasize collaboration with team members.	2.11	1.01	2.719**
Phrm2. Personnel evaluations emphasize the performance of the team as a whole rather than individual performance.	3.25	2.93	1.836+
Phrm3. Personnel evaluations emphasize individual contributions to the team's performance.	3.57	3.42	1.712+
Phrm4. R&D personnel are encouraged to share new knowledge and technology with other R&D personnel within the company.	3.63	3.52	0.959
Phrm5. Research seminars within the company are periodically conducted to share new R&D information.	4.08	3.87	1.900+
Phrm6. R&D personnel who transfer knowledge/information/ technology to other employees are evaluated highly.	3.22	3.17	0.460
Phrm7. The utilization of one's international social network is evaluated highly.	3.38	3.28	0.906
Phrm8. R&D personnel who are returnees from long-term oversea assignment are evaluated highly.	2.88	3.16	-2.597*
Phrm9. Training to support R&D personnel dispatched overseas (e.g., language classes and lessons in cross-cultural understanding) are conducted.	3.77	3.57	1.795+
Phrm10. There are procedures for dispatching R&D personnel overseas/studying abroad.	4.24	4.12	1.209
Phrm11. Combinations of R&D experts from various research fields are emphasized when forming project teams.	2.95	2.72	2.130*
Phrm12. Diversification of R&D personnel in terms of nationality is emphasized when forming project teams.	2.86	2.48	3.101**

R=Repatriates, NR= Non-repatriates
$^{+}p<.10$; $^{*}p<.05$; $^{**}p<.01$;

DISCUSSION

Following Yoshimura (2020), this study attempts to clarify a relatively unexplored aspect of RKT behavior by comparing their behavior with the behavior of non-repatriates. To describe the antecedents of RKT behavior, the hypotheses for this study are based on intrinsic/extrinsic motivation to work, intrinsic/extrinsic motivation to transfer knowledge, job characteristics, and perceived HRM practices.

First, the author expected repatriates to have a stronger intrinsic/extrinsic motivation to work. The results on intrinsic motivation to work support only one of the three hypotheses on the importance of job content. The results on extrinsic motivation to work support only one of the three hypotheses on the importance of promotions. Next, this study investigated repatriates' intrinsic/extrinsic motivation for knowledge transfer. The results on intrinsic motivation to transfer knowledge do not support the three hypotheses. The results on extrinsic motivation to transfer knowledge do not support motivation for organizational performance.

Second, this study expected the job characteristics of repatriates to differ from those of non-repatriates. The results support three out of the five hypotheses on teamwork, time restrictions, and overseas information exchange.

Third, this study expected repatriates to perceive a stronger applicability of knowledge-sharing-related HRM practices. The results support eight of the 20 hypotheses, showing opportunities for knowledge sharing as a team oriented evaluation, research seminars, diversity in project teams, and ability-enhancing training for overseas dispatchers. Additionally, repatriates do not perceive returnees from long-term overseas assignments more highly than those who have not.

Implications

The author believes that the results of this study shed a new light on knowledge transferring behavior of repatriates. Although a few studies have elaborated on the fact that non-repatriates play an important role as knowledge receivers or knowledge appreciators during the process of knowledge exchange or transfer within an organization (Oddou, Osland & Blakeney, 2009; Bird, Oddou & Mendenhall, 2009), few studies have compared the characteristics of RKT behavior with non-repatriates (Yoshimura, 2020).

This comparative analysis identified the basic differences and common points between R&D repatriates and non-repatriates based on individual motivation to work, knowledge transfer behavior, job characteristics, and perceived HRM practices.

The findings of this study have practical implications. Repatriates' motivation to work is not very different from that of non-repatriates. However, repatriates attach greater importance to their job content and promotion. Repatriates' motivation to transfer knowledge is not different from that of non-repatriates, except for their

motivation for organizational performance. Repatriates recognize that their present work requires more team cooperation, time consciousness, and overseas knowledge exchange than do non-repatriates. These findings correspond with those of a previous study (Yoshimura, 2020) that found that repatriates' networks for exchanging knowledge are larger than non-repatriates' networks, although neither repatriates nor non-repatriates indicated any significant differences in the scope of the current jobs, indicating that repatriates exchange or transfer knowledge in a way that is beneficial for their company.

Moreover, repatriates perceive their company HRM practices as more applicable than non-repatriates in four ways: enhancing motivation for knowledge-sharing HRM practices, such as team-oriented personnel evaluations, more opportunities for knowledge sharing such as research seminars within the company; project teams with members from various backgrounds and increasing the ability to gain overseas knowledge, such as training to support expatriates. Additionally, repatriates perceived that returnees from long-term overseas assignments were not more highly evaluated. This may mean that repatriates feel that their company does not evaluate them appropriately.

Limitations and directions for future research

The simple analysis method used in this study to explore the antecedents of RKT behavior based on raw data is a limitation, as this method does not explore the causality of the antecedent factors or RKT behavior. For future research, first, other antecedents of knowledge transferring behavior, such as work attitudes, leadership, and self-evaluation, should be examined. Second, key variables, such as perceived HRM practices, should be used as factors through a confirmatory factor analysis. Third, mediators between R&D and RKT behaviors and R&D performance should be included to enrich the content of the knowledge transferring model and enable its testing. Finally, R&D outcomes should be incorporated to make the model for R&D repatriates the knowledge transferring model.

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