Formation of multinational personnel loyalty as an organization sustainable development factor

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Abstract. The object of the research is represented by foreign employees working in the Russian Federation as part of the multinational personnel of the organization. The aim of the work is to develop theoretical provisions and practical recommendations to increase the level of sustainability of multinational organization development on the basis of effective management of international staff loyalty and its optimal use. The work used complementary methods of questioning and expert survey, based on the assessment - Likert scale with subsequent comparison of the actual state of management processes with expert assessments, determining the sustainability of organizational development. The system of factors influencing the formation of multinational personnel loyalty in the organization was formed, focusing on the importance of mechanisms of adaptation and motivation of foreign workers. The method of predicting the performance of enterprises on the basis of calculation of the recommended level of use of adaptation and motivation processes which form the loyalty of multinational personnel in organizations is proposed. The method is based on the expression of traditionally qualitative indicators of human resource management in quantitative formats in order to determine the regression dependences of the sustainability of organizations' performance on the initial processes of personnel management. The scientific novelty of the research results consists in substantiating the specifics of forming the loyalty of multinational personnel and developing practical recommendations aimed at enhancing the sustainable development of multinational organizations, taking into account the cross-cultural characteristics of human resources. The application of the author's methodology and algorithm in the practice of organizations with multinational staff allows to estimate the level of actual use of factors influencing the formation of multinational staff loyalty and their significance, as well as to develop a set of measures aimed at increasing the sustainability of organization development.

1 Introduction

Organisational sustainability is a current issue and a leadership objective. One of the tools to achieve a high level of sustainability in an organisation with a multinational workforce is to

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build the loyalty of such employees. The topic of loyalty of nationally and cross-culturally diverse staff operating across national boundaries is theoretically and empirically underdeveloped. The significance of this study is that the findings have an applied nature and can be used to improve the processes of managerial impact on multinational staff of the organization.

The scientific novelty of the research consists in developing and scientifically grounded theoretical-methodological provisions and practical recommendations directed to increasing the loyalty of multinational personnel to the organization on the basis of predictive models based on the importance of each employee, his motives in labour activity, ability to adjust and correct them towards increasing the labour productivity both in quantitative and qualitative expression.

The analysis of the specified problem will help not only to study the existing controversial areas in the formation of personnel loyalty, but also to develop an adapted methodology, which allows to solve problems in terms of optimization of adaptation and motivation processes in multinational teams, the application of which will allow to predict the increase of performance of organizations with multinational personnel in 2023 and further with targeted improvement of adaptation and motivation processes in relation to the relevant factors.

2 Literature review

The phenomenon of "loyalty" is studied by many foreign and domestic researchers. In the West the essence and experience of practical application of loyalty have been studied since the 1960s by C. Becker [1], Porter [2], W.A. Kahn [3] R. Duham [4] and other researchers. In Russia there has been a relatively recent increase in scientific and practical interest to the problem of developing personnel loyalty.

P. Mowday, R. Steers, L. Porter point out that employee loyalty is closely connected with their commitment to organizational goals and values [5]. A number of researchers (Alaverdov A.R. [6], Mirzabalaeva F.I. [7]) emphasize that loyalty is in close relationship with the economic efficiency of the organization.

Many factors influence the formation and maintenance of personnel loyalty, such as work incentives, psychological climate, solving personnel problems, salaries, safety and security of employees, team spirit, corporate culture, etc.

When employing a foreign employee, the employer must understand that he/she will be able to get the most out of the employee only if the work process is well organised and the communication barrier is overcome, i.e., if the adaptation period is successfully completed.

L. Benraïss-Noailles & C. Viot in their study emphasize that the image of the employer has a positive impact on the welfare of employees, which, in turn, affects their loyalty [8].

A loyal employee is more rapidly adapting to organizational changes in any social, economic and political environment.

The scientific literature on the adaptation of migrants in a foreign-speaking society considers the problems related to their assimilation in the host community [9, 10].

As A.V. Bagdueva points out, a foreign specialist who does not get accustomed to the team destabilizes the accepted patterns of relations and, consequently, does not show proper loyalty, which may negatively affect some processes of the organization functioning. A well-defined onboarding process not only prepares employees for their new position, but also helps to optimise their engagement and trust at a crucial point in their career, which leads directly to better performance [11].

The adaptation of expatriate employees who come to work from other countries is not only about adapting to the work process at the workplace itself, but also to the country in which the multinational organisation is located. At the same time their work performance
directly depends on how well they adapt to the new living conditions, the society and the unfamiliar cultural norms of social behaviour. In other words, the adaptation of a foreign employee as such is not only intended to transfer formal requirements, but also to form a positive atmosphere of work in the organisation.

In the new environment, the foreign employee first and foremost faces difficulties of a social and psychological nature, which take place during the whole adaptation period. In this regard, socio-cultural and psychological adaptation is the most difficult for him/her.

Sociocultural adaptation of foreign employees turns out to be a form of learning culturally specific skills that are required in order to find a common language with the new cultural environment. The result of socio-cultural adaptation is self-identification of a migrant with the new culture and society, the feeling of being part of them [12].

Under the influence of unfavourable socio-cultural factors social maladaptation of a foreign employee can occur, forming various negative processes (conflict, emotional instability, etc.) [13].

In the process of adaptation, the problem of foreign employee's entry into general and professional culture is related to the phenomenon of acculturation, i.e. acceptance of another's culture without losing one's own, interpenetration of cultures in the society. A number of researchers [14, 15, 16, 17] point out that acculturation is a necessary element of intercultural interaction. Cross-cultural competence, as a factor determining acculturation of the parties, is an important condition for harmonisation of intercultural interaction.

Difficulties in adapting to a new culture may lead to problems in the emotional sphere of a foreign employee [18] as well as have a negative impact on their psychological well-being [19]. In the studies of acculturation, the attention of scientists is most often focused on the results of the acculturation process: psychological or socio-cultural adaptation of migrants [20, 21, 22, 23].

A favourable psychological climate in a team is one of the components of loyalty, but psychological adaptation of a foreign worker may be hindered by such circumstances as differences in the way of life, religious views, system of values, etc. One of the key factors is leaving the familiar comfort zone, encountering the unfamiliar [24]. Psychological adaptation includes such aspects as the assessment of acculturation prospects; the degree of satisfaction with the meaning of life in general; the degree of satisfaction with being in a new group [25]. A consequence of psychological barriers when confronted with an unfamiliar culture, national characteristics and indigenous mentality is an increased level of anxiety, which, according to Spector, leads to performance deficits in simple and complex work tasks [26].

During the adaptation phase, the development of loyalty is facilitated by increasing the motivational potential of employees. Taking into account the characteristics of personnel, it is necessary to take into account the external motives of labour migration, related primarily to the economic benefit of the employee. The specifics of shaping the intrinsic motivation of a foreign employee are related to enhancing communication and interaction and reducing cultural incompatibility between members of an international team.

Increasingly, employers study the level of staff loyalty before starting to develop and implement motivational measures [27].

Various factors (wages, working conditions, career development, etc.) can motivate staff. Competent application of incentives, which form the personnel motivation system, helps to increase personnel loyalty.

The problem with creating a motivational system in organisations that employ expatriate staff is the need to consider additional factors (motives for moving to a new country, etc.).
Brief (1998) discussed two different models of job satisfaction: top-down, in which satisfaction is determined by how the individual interprets his environment, and bottom-up, in which satisfaction is derived from experiencing a more positive work environment [28].

J. Hackman and G. Oldham [29] identified the characteristics of work that affect employees' psychological states and influence people's intrinsic motivation (psychological state, job characteristics, positive attitude towards work).

However, ways of non-material motivation are just as important. In particular, realised opportunity motives, such as communication with foreign colleagues, the satisfaction of interacting with them and the lack of enhancement of one's own professional competence have a negative impact on the formation of a loyal attitude towards the organisation.

Thus, we conclude that the formation of foreign staff loyalty in a multinational team is complicated by a number of factors: behavioural characteristics in a multi-ethnic team, internal and external motivation to work in a new country, language and professional competence, etc. Therefore, building knowledge about the specifics of loyalty formation in heterogeneous cross-cultural teams is important for improving the performance of organizations with multinational staff urgently requires additional empirical research in this area.

3 Materials and methods

In order to investigate the level of loyalty and its impact on the performance of organisations with multinational staff, an employee survey in the form of questionnaires was conducted in Russian organisations with multinational staff (500 people), as well as experts (100 people): senior and middle managers, specialists, qualified employees with more than 10 years of work experience. The survey of employees determined the frequency of actual use of the factor. The survey of experts made it possible to determine the list of factors of primary importance on the level of performance of organisations with multinational staff.

Rating values of importance were assessed on a scale from 0 to 1. Data on the actual use of factors (questionnaire survey) was assessed on a ten-point scale [30].

The obtained results served as a basis for the development and subsequent testing of the algorithm of improving managerial impact in order to form loyalty in organizations with multinational staff. The choice of the research object (analyzed enterprises) was influenced by a number of basic methodological requirements, the main of which were:

a) typicality (presence of personnel of different nationalities from near and far abroad countries);

b) the principle of a single difference (similarity)

c) the possibility of taking into account the results of the activity and reliability of the study.

The author's methodology included calculation of the performance indicator of each factor influencing the formation of loyalty, potentially affecting the activities of organizations with multinational staff [31].

The peculiarity of the methodology consists in the fact that due to the combination of expert survey and questionnaire methods, quantitative assessments of indicators traditionally expressed by qualitative characteristics were obtained.

This was achieved by applying the principles of Likert scale construction. Thus, the performance of the n-th factor is \( R_n \) was calculated using the formula \( R_n = F_n \cdot O_n \),

where \( F_n \) is actual use of the n-th factor;

\( O_n \) is an expert assessment of the importance of the n-th factor.
Table 1 shows their average values for the analysed factors of employee loyalty formation in organisations with multinational staff and the results of calculating the factor performance indicator.

**Table 1.** Assessment of factors influencing the loyalty of multinational staff in the organization. Source: Compiled by the authors.

<table>
<thead>
<tr>
<th>Adaptation measures</th>
<th>Average indicator score (experts) Fn</th>
<th>Average indicator score (staff) On</th>
<th>Value of performance, En</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting colleagues of the same nationality</td>
<td>4.9</td>
<td>0.75</td>
<td>3.7</td>
</tr>
<tr>
<td>Adaptation programme for a foreign employee</td>
<td>3.7</td>
<td>0.92</td>
<td>3.4</td>
</tr>
<tr>
<td>Domestic assistance (provision of free accommodation and meals, employment for family members)</td>
<td>5.5</td>
<td>0.84</td>
<td>4.6</td>
</tr>
<tr>
<td>Meeting local staff</td>
<td>5.1</td>
<td>0.76</td>
<td>3.9</td>
</tr>
<tr>
<td>Mentor assignment from a similar culture</td>
<td>5.9</td>
<td>0.92</td>
<td>5.4</td>
</tr>
<tr>
<td>Opportunities for medical care and further education in the host country</td>
<td>3.2</td>
<td>0.82</td>
<td>2.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motivation methods</th>
<th>Average indicator score (staff) On</th>
<th>Value of performance, En</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing a compensation package</td>
<td>0.62</td>
<td>4.2</td>
</tr>
<tr>
<td>Remuneration according to employee achievement</td>
<td>0.56</td>
<td>0.7</td>
</tr>
<tr>
<td>Objectivity of the supervisor's performance appraisal</td>
<td>0.55</td>
<td>0.2</td>
</tr>
<tr>
<td>Organising joint cultural events for multi-ethnic employees and their families</td>
<td>0.44</td>
<td>3.2</td>
</tr>
<tr>
<td>Opportunity to maximise professional fulfilment in a new cross-cultural environment</td>
<td>0.42</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Further, on the basis of correlation and regression analysis, relationships were found between performance factors for the use of adaptation and motivation measures to build employee loyalty in organisations with multinational staff, and two-factor mathematical models of the type $y = a_0 + a_1 \cdot x$.

The conducted analysis made it possible to distinguish two groups of performance factors. The first group includes factors influencing intermediate results of the enterprises, the second group includes those factors of performance of adaptation and motivation measures influencing loyalty formation, which, according to the results of correlation and regression analysis, influence return on equity, output per employee, profit before taxes per employee, turnover rate of current assets.

**4 Results**

Correlation and regression analysis provided the basis for identifying two groups of factors. The results of the correlation and regression analysis of the first group of factors are systematised in Table 2.
Table 2. Models of influence of the first group of factors of loyalty formation in organizations with multinational staff. Source: Compiled by the authors.

<table>
<thead>
<tr>
<th>Name of dependency</th>
<th>Type of model, t-criterion, correlation coefficient, coefficient of determination</th>
<th>Explanation of dependency</th>
</tr>
</thead>
</table>
| 1. Model for the impact of the adaptation measure "Attachment of a mentor from a similar culture(X) on the performance of the "Career Development" motivation mode (Y) | $Y = 2.9363 + 0.6179 \cdot X$ (2)

$t$-criterion – 2.53,

$K$ correlation – 0.67

$R^2 = 0.45$ | Assigning an expatriate employee to a mentor from a similar culture will maximise his or her potential as quickly as possible. Professional orientation assistance plays a crucial role in furthering career development by building commitment to the company's interests |
| 2. Model for the impact of the adaptation measure "Organising language and cross-cultural training (X) on the performance of the motivation mode "Real possibilities of personal development" (Y) | $Y = -0.2972 + 0.8821 \cdot X$ (3)

$t$-criterion – 2.57,

$K$ correlation – 0.67

$R^2 = 0.45$ | Cultural differences and language barriers are key aspects of migrant's socialization: lack of knowledge of the language reduces motivation for productive activities and leads to conflict situations. During the adaptation period, additional lessons in Russian language and acquaintance with cultural norms and values accepted both in the country and in the organization help to reduce communication barriers and, as a consequence, motivate the migrant to develop personally in their professional life. |
| 3. Model for the impact of the adaptation measure "Medical care and additional education in the host country" (X) on the performance of the incentive measure "Compensation package" (Y) | $Y = 2.7787 + 0.8951 \cdot X$ (4)

$t$-criterion – 15.0,

$K$ correlation – 0.99

$R^2 = 0.98$ | The compensation package, as a comprehensive multifunctional incentive that includes both financial and social components, enables the foreign employee to receive a number of additional social benefits (free medical care, additional education, etc.), which contributes to increasing loyalty to the organisation |
| 4. Model for the impact of the adaptation activity "Meet people of a similar culture" on the performance of the motivation method "Holding joint corporate events for employees and their families" (Y) | $Y = 1.4007 + 0.6988 \cdot X$ (5)

$t$-criterion – 3.87,

$K$ correlation – 0.81

$R^2 = 0.66$ | Building a socio-psychological climate between members of a multinational team Loyalty to the team |
| 5. Model for the impact of the | $Y = -0.7313 + 0.952 \cdot X$ (6) | Informal communication plays an important role in the management of an |
adaptation activity
"Meet people of a similar culture" on the performance of the motivation method
"Holding joint corporate events for employees and their families" (Y)

t-criterion -3.16,
K correlation – 0.75
R² = 0.56

international team. Cultural, ethical and social differences between employees can be the cause of disagreements that provoke conflict situations. Joint corporate events facilitate feedback from the management, create a positive microclimate and motivate long-term cooperation

6. Model for the impact of the adaptation measure "Adaptation programme and motivation plan for a foreign employee" (X) on the performance of the incentive measure "Performance based pay" (Y)

Y = 0.8979 + 1.0132·X (7)
t-criterion –15.02,
K correlation – 0.98
R² = 0.96

Fair rewards for efforts made contribute to increased loyalty. Having an adaptation and motivation plan that takes into account the specifics and needs of employees in the new cross-cultural environment creates a motivating microclimate that affects not only current satisfaction, but also shapes employees' aspirations for further achievements.

The factors that make up the first group influence the degree of performance of higher-level factors that characterise the intermediate results of organisations with a multinational workforce. The factors that make up the second group influence the final performance of the studied enterprises, such as return on sales, return on assets, return on equity, output per worker, pre-tax profit per employee, turnover rate of working capital and costs per ruble of sales.

The second group (the group of secondary factors) includes: financial motivation methods "Compensation package", "Remuneration of employees according to their achievements", as well as intangible motivation methods "Career development", "Effective personal development opportunities", "Conducting joint corporate events for employees and their families".

Thus, the following two-factor relationships were obtained during the study:

- The dependence of return on equity on the performance of the financial motivation method "Compensation package":

  \[ Y = -147.7 + 38.07 X \] (8)

- dependence of the return on equity on the efficiency of use of a financial motivation method "Performance pay": \( y = -105.5 + 39.07 \cdot x \); (8)

  \[ Y = -105.5 + 39.3 \cdot X \] (9)

- dependence of the output per employee on the efficiency of "Career growth" non-material incentive method

  \[ Y = -1.5 + 0.9 \cdot X \] (10)

- dependence of the turnover coefficient of the working capital from the productivity of the non-material incentive method "Real personal development opportunities":

  \[ Y = -10786.4 + 4658.47 \cdot X \] (11)
dependence of pre-tax profit on the efficiency of non-material motivation method "Real possibilities of personal development":

\[ Y = -704.7 + 3209.9 \cdot X \]  \quad (12)

Based on the created regression models, the recommended values of the effectiveness of the use of secondary factors have been calculated, which, as a result, contributes to a significant increase in the final results of organizations with multinational staff, in particular, the return on equity (Table 3).

**Table 3.** Values of return on equity in the studied companies for 2020-2022 (according to the balance sheet data). Source: Compiled by the authors.

<table>
<thead>
<tr>
<th>Organisations with Multinational Staff (Russia)</th>
<th>Return on equity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td>1 APK Damate Ltd.</td>
<td>-0.29</td>
</tr>
<tr>
<td>2 Betonium Ltd.</td>
<td>93.59</td>
</tr>
<tr>
<td>3 Telemà Gino Plant Ltd.</td>
<td>44.25</td>
</tr>
<tr>
<td>4 Russian Dairy Company Ltd. in partnership with Olam International</td>
<td>-5.05</td>
</tr>
<tr>
<td>5 Invest Ltd in association with Cemil Özgür Group</td>
<td>-146.38</td>
</tr>
<tr>
<td>6 Kaynak Ltd.</td>
<td>20.11</td>
</tr>
<tr>
<td>7 Beacon-Technocell Ltd.</td>
<td>24.12</td>
</tr>
<tr>
<td>8 Asia Cement Ltd.</td>
<td>-51.15</td>
</tr>
<tr>
<td>9 OJSC Dairy Factory</td>
<td>-0.42</td>
</tr>
<tr>
<td>10 OJSC Dieselmash</td>
<td>33.12</td>
</tr>
</tbody>
</table>

The data of profitability values in the studied organisations with multinational personnel, clearly shows that the obtained value is higher than the maximum value in Russian enterprises with multinational personnel (Invest Ltd. in association with Cemil ÖzgürGroup) and its lowest value (Asia Cement Ltd.).

This is illustrated by calculations from the case study. The management of the studied organisations with multinational staff need practical measures aimed at increasing the effectiveness of the adaptation measure "Retention of a mentor from a similar culture". The regression relationship we have identified will help (2):

\[ X = \frac{8.5 - (-0.2972)}{0.8821} \]  \quad (5)

Here 8.5 – the maximum possible effectiveness of the non-material incentive method “Career development”

\[ X \]  – the effectiveness of the use of the adaptation activity “Mentor assignment, representative of a similar culture”.

The resulting value of \( X = 9.9 \) is higher than the maximum possible effectiveness of the use of the considered adaptation measure and significantly exceeds the actual indicators in the studied enterprises with multinational personnel.

The calculations indicate the need to increase the effectiveness of the use of the adaptation measure "Employment of a mentor from a similar culture" in the studied organisations with multinational staff.

We will determine the return on equity using our regression dependency model:
Here Y is equal to 228.9 thousand roubles.
8.5 is the maximum possible efficiency of the non-financial motivation method "Career development".
Y - return on equity.
The presented example makes it possible to visualise the scheme of increasing the efficiency of using various factors influencing the formation of multinational personnel loyalty through the optimisation of adaptation and motivation processes (Figure 1). Such optimisation is based on saving resources through their more efficient use, and the result is an increase in the performance of the enterprise.

Fig. 1. Algorithm of implementation of managerial action to build the loyalty of multinational staff in an organization. Source: Compiled by the authors.

Thus, this scheme identifies a number of basic directions in improving multinational staff loyalty formation, but further improvements are needed in multinational staff management techniques, taking into account the market position of the organisations studied, the scale of production activities, geographical location, specifics of norms and values within it and other additional factors.

5 Discussion
Problems of forming personnel's loyalty were considered in the works of S. A. Asyutin, [32] S. S. Baranskaya, [33] V. I. Dominyak [34]. However, the research objective was a system of social and psychological factors influencing personnel's loyalty, methods of diagnostics of the current personnel loyalty level without considering national and cross-cultural peculiarities of employees were presented.

However, scientific research to date has not presented a methodology to improve the effectiveness of the use of various factors affecting the formation of multinational personnel (local employees and foreign employees from CIS and non-CIS countries) loyalty by optimizing such management processes as adaptation and motivation in the new cross-cultural environment.

The application of this methodology made it possible to analyse possible and actual values of the effectiveness of adaptation and motivation measures in organisations with multinational personnel, where the study of factors influencing loyalty was conducted, and to clearly demonstrate that there is substantial reserve in improving the degree of management of these factors and growth of indicators reflecting their production activities.
With the help of created regression models it is possible to make calculations of recommended values of efficiency of use of primary factors necessary for practical achievement by the organizations with the multinational staff of the maximum possible indicators of efficiency of use of corresponding secondary factors that, in its turn, leads to essential growth of profitability of sales, profitability of assets, profitability of equity, output per 1 worker, volume of profit before taxes per one employee.

6 Conclusions

The present study considers distinctive features of multinational personnel's loyalty formation in organizations. Based on the analysis of domestic and foreign literature, devoted to the problems of loyalty formation, the author presents distinguishing features of adaptation and motivation measures for organizations operating on the territory of the national market and having both local and foreign staff in their staff.

With the help of the author's methodology the actual state of loyalty of multinational personnel has been investigated.

By means of regression dependence models the recommended levels of management indicators influencing the interim performance of organisations with multinational staff have been determined.

In order to achieve the predicted values, the authors proposed measures of managerial influence on the initial influence factor.

We propose the following as a measure aimed at improving the effectiveness of the use of the adaptation measure "Mentor, representative of a similar culture".

A mentor from a similar culture is a native speaker of a language in which the foreign employee is fluent. This knowledge contributes to the foreign employee's ability to deal quickly with everyday life and organisational issues. The assignment of a mentor from a similar culture to the foreign employee enables the foreign employee to reach his or her potential as quickly as possible. Assisting with career guidance is crucial for further career development, building commitment to the company's interests

As recommendations for increasing the effectiveness of the intangible motivational method "career development", we suggest that managers of organisations with multinational staff focus on the following aspect: certainly, material rewards for performance have, in most cases, a significant impact on the preference for employment in the organisation. Non-material incentives exist to motivate employees to perform at their best. Satisfying social needs is just as important. Businesses where managers not only integrate each employee with the organisation's values but also consider the values of the employee himself, a member of a different culture, develop the employee's motivational potential, which ultimately affects the performance of the organisation.

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