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Providing a comprehensive model for improving employee productivity indicators in Agricultural Jihad Organization of Ilam province

Proporcionando un modelo integral para mejorar los indicadores de productividad de los empleados en la Organización Agrícola de Jihad de la provincia de Ilam

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ABSTRACT

The current study aims to design and explain a comprehensive model for employee productivity improvement indicators. This research is objectively a fundamental-practical study, naturally a survey research, and paradigmatically an exploratory blended research. The statistical population consists of human resource experts and organizational behavior in the qualitative section. The targeted sampling and snowball were used to identify the experts. Twenty experts were employed due to the data adequacy. To test the model, 245 employees of Agriculture Jihad Organization of Ilam province were used. The analysis method included the grounded theory and the structural equation approach. Data were collected through deep interviews along with a 69 item questionnaire. The grounded results indicate the fact that the supportive atmosphere and attention to the learning organization were identified in causal conditions. The main phenomenon of individual characteristics was identified in relation to the intervention conditions, the internal and external factors of the organization. The governing body of organizational culture and laws and regulations and merit-based leaders and human resources skills have been identified in relation to the main strategy of human resource management (HRM) practices. The main consequence of this model is also the productivity of human resources, and the results of the partial least squares model were approved and its relationships were correctly designed.

RESUMEN

El presente estudio tiene como objetivo diseñar y explicar un modelo integral de indicadores de mejora de la productividad de los empleados. Esta investigación es objetivamente un estudio fundamental-práctico, naturalmente una investigación por encuesta y paradigmáticamente una investigación exploratoria combinada. La población estadística está formada por expertos en recursos humanos y comportamiento organizacional en la sección cualitativa. El muestreo dirigido y la bola de nieve se utilizaron para identificar a los expertos. Se contrató a veinte expertos debido a la adecuación de los datos. Para probar el modelo, se utilizaron 245 empleados de la organización Agriculture Jihad Organization de la provincia de Ilam. El método de análisis incluyó la teoría fundamentada y el enfoque de ecuaciones estructurales. Los datos se recopilaron mediante entrevistas en profundidad junto con un cuestionario de 69 ítems. Los resultados fundamentados indican el hecho de que la atmósfera de apoyo y la atención a la organización que aprende se identificaron en condiciones causales. Se identificó el fenómeno principal de las características individuales en relación a las condiciones de intervención, los factores internos y externos de la organización. Se ha identificado el órgano rector de la cultura organizacional y las leyes y regulaciones y los líderes basados en el mérito y las habilidades de recursos humanos en relación con la estrategia principal de prácticas de gestión de recursos humanos (HRM). La principal consecuencia de este modelo es también la productividad de los recursos humanos, y se aprobaron los resultados del modelo de mínimos cuadrados parciales y se diseñaron correctamente sus relaciones.

Palabras clave: Recursos humanos; Prácticas de gestión de recursos humanos (HRM); Productividad de recursos humanos; Resiliencia de retención de recursos humanos.

1. INTRODUCTION

Productivity is considered as one of the key factors for improving the ability of nations to achieve economic growth. According to data released by the European Union (EU) in 2014; a total of 9.7% of its gross domestic product (GDP) depends on human resource productivity, which highlighted the increasing interest of companies and businesses in improving the productivity to achieve economic growth as well as to enhance the efficiency of companies. Indeed, several research on organizational productivity have only considered at the competitive leverage of that for domestic companies, while the researcher observes productivity improvement as a source for the macro-scale outcomes of productivity as a factor to improve the economy of the country and to recovery it from bad economic conditions.

The main issue of the present research which led the researcher to begin work in this area is that companies' managers have not been able to improve the mechanism of improving human resource productivity in line with the research given the many studies carried out in the field of organizational productivity and identify the factors affecting the improvement of human resource productivity.

The Ilam Agricultural Jihad Organization encounters challenges and difficulties to strengthen productivity in the field of improving working conditions according to the available potential of the Ilam province. That is why the rate of employees drop in the organization has risen from 0.17% to 0.26% over the past few years. Failure to categorize and present an appropriate model for improving native productivity makes managers unable to improve the productivity of human resources in organizations. Regarding this issue, ultimately, the main question of the current research is: "what are some indicators that will provide the ground for improving the productivity of human resources in the Agricultural Jihad Organization of Ilam province?"

2. THEORETICAL PRINCIPLES

The classification and identification of factors affecting the productivity of human resources seem to be a work-culture issue. If companies do not care about their native culture, they cannot properly create solutions to enhance productivity for human resources. The diversity of culture and work environment has led to provide the various models for improving productivity. Drawing conclusion seems to be difficult and inaccessible considering the work conditions, the type of human resource requirements, and management styles. Therefore, the main purpose of this research is to provide a comprehensive model for the issue of productivity fitted to the cultural context of Iran and to address this gap that productivity is faced with in scientific discussions.

Human resource productivity: Human resource productivity is considered as the most important criterion for productivity because human resource is the fundamental element in any effort to improve productivity. The most important advantage of measuring human resource productivity is that it provides a unique indicator which can be used to compare the productivity of organizations and to assess the monetary value created by human resources. In other words, it measures the impact of human resources on the performance of organizations.

Human resources as the main factor in output production factors and their management, therefore, play a decisive role in productivity. Any approach to improve organizational productivity has to include personnel affairs because it is human beings who are doing the work of the organization. Of course, the primary emphasis of human resources' or personnel affairs' management studies has been taken on how to create incentives to increase productivity, use of performance evaluation tools and payment based on meritocracy. However, a strategic approach has today been taken in human resources and productivity. Some scholars have suggested the strategic role of human resource management (HRM) in the organization in three following areas:

1. Participation in value added;
2. Participation in creating a competitive advantage;
3. The effect of HRM on organization performance.

Empirical research history: Fischer (2017) sought to identify effective factors on productivity enhancement in a research. The several researches have been conducted on the human resource productivity at human resources institutions. From the researcher's perspective, it has been attempted to identify the factors leading the improvement of human resource productivity. A lot of attention has been paid to issues related to the work environment and working conditions. Meanwhile, the role of states in many studies has been ignored. As the existence of rules and regulations, coherent policy-making in the field of human resources and appropriate policies can also provide a ground for improving human resource productivity. These are states which provide the ground to improve human resource productivity with their rules and power. Allen and McQoulag (2017) also explored the factors that contributed to improve productivity in boosting emerging economies in Africa. A model was provided to improve the human resource productivity in Africa, which outlined the importance of human resource and its productivity in emerging economies. Improving human resource productivity plays an important role in boosting organizational productivity, and this will provide a platform for strengthening organizational innovation. The working conditions in the organization must be well-regulated in order to strengthen the human resource productivity in the perspective of these researchers. In fact, if everything is placed in its own situation according to researchers' perspective, then it could be expected that human resources will be at a higher pace to improve their performance indicators in the organization. Nauom (2016) investigated the factors affecting the productivity improvement in human resource. In this research, the researcher has tried to categorize effective factors on productivity improvement, to strengthen and development the ground of economic growth in the country. In a research conducted in United States, three major categories of motivational, organizational, managerial style criteria were identified in the context of strengthening and improving human resource productivity. Attention to the provision of demands and the

increase of material and spiritual rewards were considered in the motivational criterion. In the dimension of organizational criterion, attention to the desired work environment, increased scope of authority and responsibility, and clear and simple structures were identified as important criteria, and in the final dimension, the issue of management style and availability of managers were identified as important criteria. Bojrn Michael et al. (2015) particularly evaluated the role of knowledge in improving human resource productivity. In this research, 78 chain restaurant managers in Madrid, Spain, were collaborated to explore the main objective of the study. As well as, the researchers have argued that improving capabilities, competencies and human resource abilities are important factors in improving the human resource productivity in the organization. In fact, they particularly emphasized the role of education and human resource abilities.

3. RESEARCH METHODOLOGY

This study is methodologically a descriptive-survey research and is purposefully a fundamental research. On the other hand, since this research has used the combination of qualitative and quantitative approaches, it is also a kind of exploratory blend research. In the first section of this research, the approach of grounded theory has been used to identify effective measures to improve the human resource productivity. As well as, a partial least squares approach has been used in this research for model testing. Interviewing tools in the first step and a questionnaire in the second step were used in order to collect data.

The statistical population of this study consisted of two parts. The first part that has been used for the interview includes human resource and organizational behavior experts according to its subject matter. These people were first selected using a targeted sampling method through the criteria that the researcher described in this research as an expert cognitive factor, and then attempted to increase the number of interviewees in this research using snowball sampling. The second part of the studied population consisted of the employees of Agricultural Jihad Organization of Ilam province (provincial headquarters in Ilam, Abdanan, Ivan, Cherdoval, Dareh Shahr, Badreh, Dehloran, Sirvan, Mehran, and Malekshahi). In this study, two-stage sampling was used to determine the sample size. In the first section, a stratified random sampling is used to fit the number of individuals in each organization. Then, a simple random sampling is used to select sample members. In this study, the total size of population was 677 people, which the sample size was 245 people using the Cochran formula.

3. RESULTS

3.1. Qualitative section

The practical process of analyzing qualitative data includes four steps as follows:

1. Data collection;
2. Getting to know;
3. Coding; and
4. Acquisition of meanings and concepts for the exploratory evaluation of experts' perspective on the common components of human resource productivity.

Following an in-person and profound interview with 20 experts, managers and specialists from Agricultural Jihad Organization, we obtained the saturated data and stopped the process of interviews. The data from interviews were collected as grouped factors based on the indicators presented in the theoretical foundations and the grounded theory. The verbal statements of interviewees after the evaluation and analysis, ultimately, were categorized into 27 standard main components in open coding format based on the statistical relationships in field operations between categories and propositions. Then, as a result of the

content adjustment of themes, the identified components were outlined in the format of a structured, grounded theory approach.

Step 1: Formation of the main classes: After determining the categories, it turns to the constructing stage of the main classes of the theory that these classes are presented in Table 1. Once a category has been identified, the analyst can explain the category based on its specific characteristics and dimensions. It can be specified by the specific definition of each category. The main function of the characteristics is to provide more details about each category in the grounded theorizing.

Table 1. Micro and macro-categories

Micro-categories	Category code	Macro-categories	Category code
The spirit of boosting expansionism	B1	Individual characteristics	C1
Inner capacity of individuals	B2		
Supporting organizational managers and leaders	B3	Organizational support atmosphere	C2
Meritorious support programs	B4		
Existence of cooperation and collaboration in the organization	B5		
Organizational knowledge development	B6	Learning organization	C3
Strengthening the work team	B7		
Interactive space in the organization	B8	Organizational Culture	C4
Attention to meritocracy values	B9		
The existence of guild unions	B10	Terms and Conditions	C5
The existence of coherent regulations	B11		
Human resources planning and recruitment system	B12	HRM practices	C6
Appropriate promotion and rewards	B13		
Job analysis programs	B14		
Domestic marketing	B15		
Service compensation system	B16		
Intelligence (emotional, etc.)	B17	Human resource skills	C7
Communication skills	B18		
Ethical leadership style	B19	Merit-based leadership	C8
Interventional leadership	B20		
Economic and political conditions	B21	External factors	C9
Social and cultural conditions	B22		
Structural factors	B23	Intra-organizational factors	C10
Appropriate work environment	B24		
Human resource motivation	B26	Human resource productivity	C11
Human resource effort	B 27		

Once a category has been identified, the analyst is able to explain it based on its specific characteristics and dimensions.

Step 2: Pivotal Encoding: The pivotal coding of the second step is the analysis in the grounded theorizing. This step aims to establish a relationship between the generated classes (in the open coding step). This function is based on the paradigm model and helps the theorist to easily conduct the theory process. The linking process in pivotal coding is based on the expansion of one of the classes.
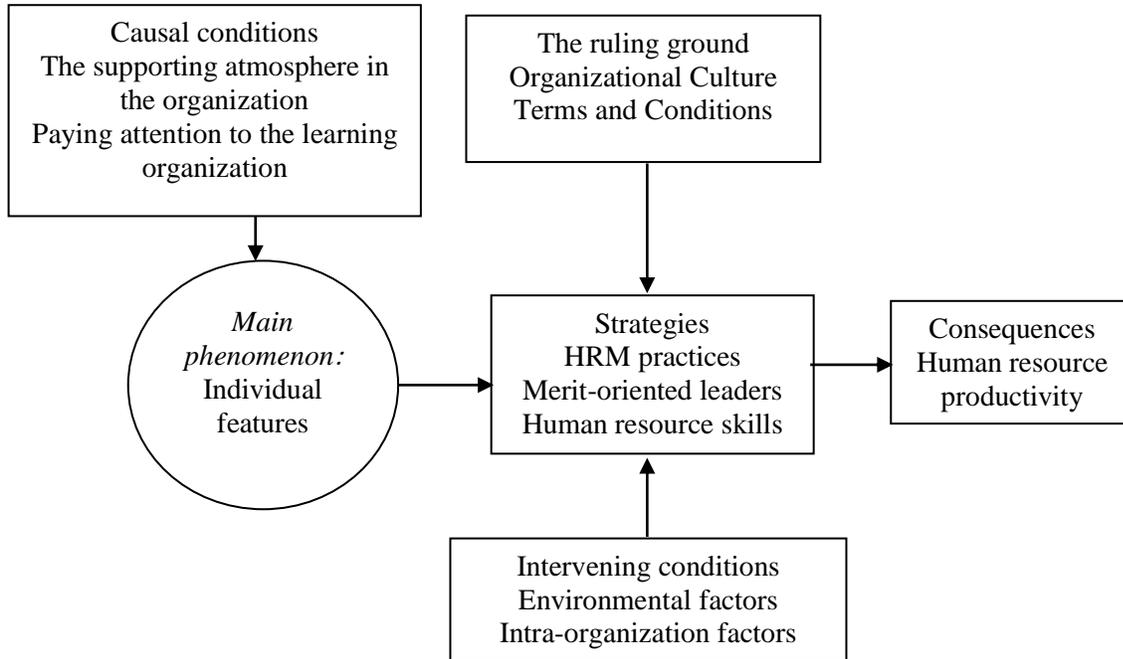
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┌─────────────────────────────┐        ┌─────────────────────────┐
│      Causal conditions      │        │     The ruling ground   │
│ The supporting atmosphere in│        │  Organizational Culture │
│       the organization      │        │   Terms and Conditions  │
│ Paying attention to the learning│    │                         │
│        organization         │        │                         │
└─────────────────────────────┘        └─────────────────────────┘
              │                                    │
              ▼                                    ▼
         ╭──────────╮          ┌──────────────────────────┐     ┌─────────────────┐
         │   Main   │          │        Strategies        │     │   Consequences  │
         │phenomenon:│   ──▶    │      HRM practices       │ ──▶ │  Human resource │
         │Individual│          │   Merit-oriented leaders │     │   productivity  │
         │ features │          │   Human resource skills  │     │                 │
         ╰──────────╯          └──────────────────────────┘     └─────────────────┘
                                          ▲
                               ┌──────────────────────────┐
                               │   Intervening conditions │
                               │    Environmental factors │
                               │ Intra-organization factors│
                               └──────────────────────────┘
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Figure 1. Pivotal coding based on model

Step 3: Theorizing: Selected coding (according to the results of the two previous steps) is the main step of theorizing. Thus, class-orientated systems are systematically linked to other classes, and provide those relationships within the framework of a narrative and modify the classes which need further improvement and development. At this step, the researcher either presents the framework of the paradigm model as a narrative or disassembles the paradigm model and graphically depicts the final theory based on his own understanding of the context of studied phenomenon.

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┌─────────────────────────────┐        ┌─────────────────────────┐
│   The supportive atmosphere │        │  Organizational culture │
│       in the organization   │        │   Terms and regulations │
│     Paying attention to the │        │                         │
│      learning organization  │        │                         │
│      Civilization Leader    │        │                         │
└─────────────────────────────┘        └─────────────────────────┘
              │                                    │
              ▼                                    ▼
   ┌────────────────────┐       ┌──────────────────────────┐     ┌─────────────────┐
   │ Individual features│  ──▶  │       HRM measures       │ ──▶ │  Human resource │
   └────────────────────┘       │   Merit-oriented leaders │     │   productivity  │
                                │   Human resources skills │     │                 │
                                └──────────────────────────┘     └─────────────────┘
                                           ▲
                                ┌──────────────────────────┐
                                │    Environmental factors │
                                │ Intra-organization factors│
                                └──────────────────────────┘
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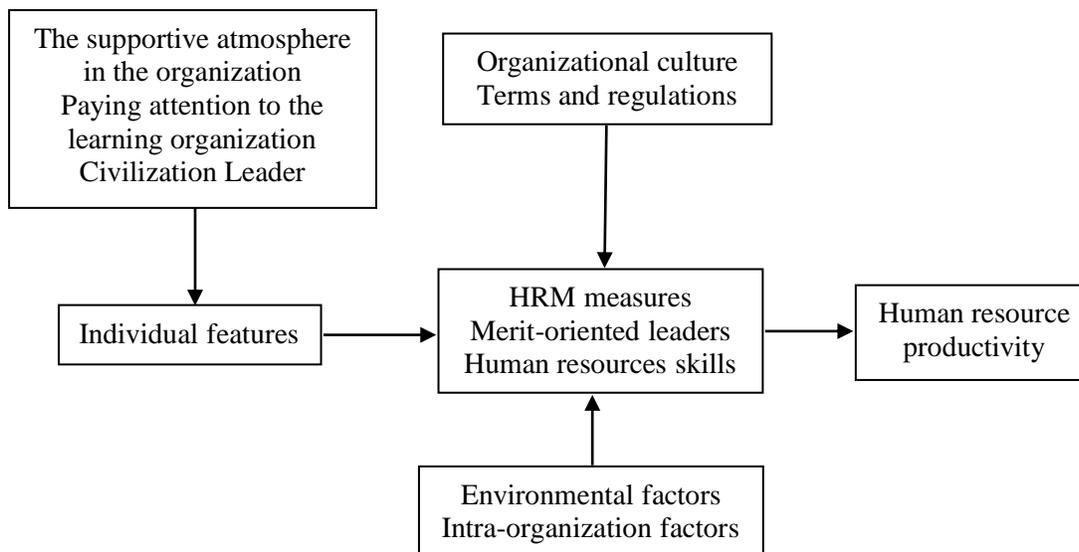
Figure 2. Mechanism of human resource productivity model

3.2. Model testing

A structural equation model with partial least squares approach has been used in order to test the research model. But before interpreting the model, the model's fitness must first be confirmed in the three sections of the measurement model, the structural model and the general model, in order to reliability of its results; and in fact, the reliability and validity of the model must be approved. Purposefully, the Cronbach's alpha, combined reliability and convergent validity have been used in the model of measurement model, which is presented in Table 2.

Table 2. Validity and reliability of the measurement model

Criterion	Convergent validity	Combined reliability	Cronbach's alpha
Individual characteristics	0.767	0958	0.946
The supportive atmosphere in the organization	0.618	0.926	0.93
Paying attention to the learning organization	0.545	0.86	0.819
Organizational culture	0.799	0.969	0.963
Terms and regulations	0.911	0.976	0.966
HRM practices	0.706	0.941	0.915
Human resource skills	0.623	0.89	0.842
Merit-oriented leaders	0.66	0.92	0.895
Extra-organizational factors	0.891	0.97	0.959
Intra-organizational factors	0.833	0.952	0.933
Human resource reservation	0.516	0.885	0.824

After confirming the fitness of the measurement model, we accordingly need to point out the structural model reliance using the two CV.Red and CV.Com indicators as shown in Table 3.

Table 3. Fitness of the structural model

| Structures	Determination coefficient (R^2)	CV.Red	CV.Com
Extra-organizational factors		0.891	0.891
Intra-organizational factors		0.833	0.833
HRM practices	0.428	0.294	0.706
Individual characteristics	0.402	0.293	0.767
Human resource productivity	0.646	0.2	0.324
Human resource skills	0.563	0.347	0.623
Merit-oriented leadership skill	0.546	0.358	0.668
Organizational culture		0.799	0.799
Supportive atmosphere		0.618	0.618
Terms and regulations		0.911	0.911
Learning organization		0.545	0.545

Finally, the general fitness of model is also pointed out, which the GOF index is used in the least-squares models that should be more than 0.3. This index is calculated according to the following formula for the present model and shown a

3.3. General model

$$\text{GOF=} \sqrt{Communalities \times R^2} = 0.309$$

<div align="right">(1)</div>

After confirming the model fitness in three levels, the structural equation model developed by the Smart PLS software is presented below and the hypotheses of the research are discussed in the following section.
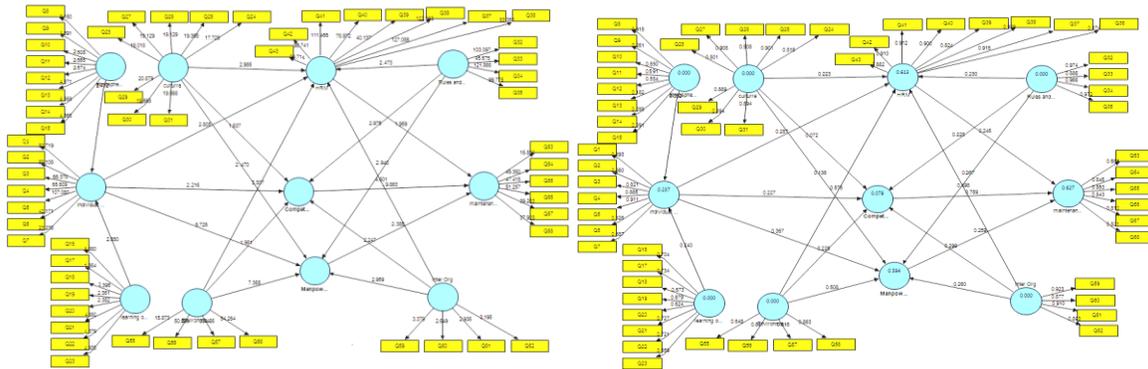
According to the outputs of standard coefficients and significant status, it can be concluded that all research relationships are confirmed. In fact, given that the t-value is higher than 1.96 (t>1.96) in the relationship between the variables, it can then be claimed that the above hypotheses are approved.

4. CONCLUSION

One of the most important challenges of today's business is the human resource empowerment to improve the responsiveness of human resource to the challenges of the business environment. High level of human knowledge and productivity is required in service-oriented organizations such as Agricultural Jihad Organization in order to improve satisfaction and desirability of services. HRM measures include the human resources planning and recruitment system, appropriate promotion and reward system, job analysis programs, domestic marketing, and service compensation system. On the other hand, merit-oriented leaders have an ethic-oriented leadership style and interventional leadership, and ultimately intelligence (different kinds) and communication skills. The underlying condition has been the fourth issue, which included organizational culture and organizational rules. An organizational culture involves an interactive environment in the organization and consideration of meritocracy values. Interventional conditions in this research are environmental factors and intra-organizational factors. Finally, the human resource productivity was the last issue which has been identified as the outcome in this study. It included human resource competency, working quality, and organizational agility over this study. On the other hand, Smart PLS software was used to investigate the extractive relationships among 245 employees of the 11 surveyed companies. The results implied that all the designed relationships affect each other. Finally, it can be argued that organizational productivity is an issue which requires a systematic look at the issue of human resource productivity in organizations.

Shapork et al. (2010), in their research, focused on individual characteristics as an issue which can play an important role in the development and improvement of human resource productivity that is consistent with this research. Chen and Lee (2013) also sought to identify the factors affecting human resource productivity, which identified measures such as increasing labor motivation, giving authority and empowerment, conducting the challenging tasks, participating, and providing material needs, all of which were also approved in this study; therefore, it was consistent with the present research results. Yi et al.

<div align="right">220</div>

(2017) investigated the characteristics of working environment in terms of human resource productivity, which was also confirmed in the current study.

Finally, it is offered that organizational managers provide a framework to improve human resource competence through the enhanced knowledge sharing, training courses, and empowerment by improving career path design and organizational perspectives. The higher the human resource merit is, the more employees help their colleagues in their organizational activities and tasks and show citizenship behaviors, which this can provide the ground for improving the human resource productivity and ultimately an organizational productivity. The managers of these organizations are offered to provide feedback on human resource activities and measures to improve the productivity, and make effort by providing positive feedback and creating Pygmalion effect to boost and improve the performance and productivity level.

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