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Increasing the work engagement of agrarian enterprise employees through the support of the direct manager, organisational trust and job autonomy

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Abstract: The aim of the paper is to research the interrelationships between variables – the support of the direct manager (*SDM*), work engagement (*WE*), organisational trust (*OT*), and job autonomy (*JA*) in enterprises operating in agriculture. Both direct and indirect effects affecting the increase in work engagement of agrarian employees are analysed. For the data collection, a questionnaire survey among the employees of agrarian enterprises in Slovakia was used (680 respondents). For testing, we applied the theoretical research model and purposed hypotheses with the partial least squares structural equation modeling (PLS-SEM) method through the SmartPLS 3.0 software. The findings point out the existence of a statistically significant relationship between *SDM* and *WE*, which is, though, weaker than the overall effect by involving the mediation variables. Both mediation variables (*OT* and *JA*) separately increase the overall effect, but their common mediation influence mainly has a substantial significance. The intensity of the researched relationship increases with the length of employment. In the case of the employee's age and the size of the agrarian enterprise, there was a negative moderating effect on the relationship of the main proven variables.

Keywords: agricultural enterprise management; autonomy of the employees; engagement; level of trust; managerial support; mediation; staff

Agricultural enterprises face many challenges in the current dynamic and turbulent environment. Some of these are consequences of the COVID-19 pandemic, technological development, digitalisation, unequal conditions in the European business environment (higher levy load compared to EU, subsidy taxation) and the lack of qualified labour on different organisational levels, higher average age of the employees, low attractiveness of the work in this sector and many others. Solutions are definitively needed, some of them can

be implemented inside the enterprises by the enterprises applying appropriate managerial tools.

Currently, agricultural enterprises are moving forward with their technological level. The number of modern farms using modern technologies is increasing, which, in turn, increases the demand on the employees and their skills. Managers need to hire people who are not only educated but are also eager to work, who have a positive attitude towards working in the countryside, and who want to continuously learn

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and improve in the context of new incoming trends. An engaged employee, who is connected with the enterprise and its social system, is also a source of innovation and improves the organisational performance of agricultural enterprises (Cabello-Medina et al. 2011). In the context of constant changes, a disengaged employee can become costly for the enterprise.

The subject of our research is important for many reasons. The first one is increasing the significance of the work engagement in the context of reaching organisational effectivity. The changing dynamics of the external and internal environment is related to the changing dynamics in the working environment with the need to focus on work engagement. On the other side, there is a continuous absence of qualified workforce. Even though professional discussions are ongoing on these issues, the results are not positive, and the need for a solution is apparent. Employee engagement decreases the possibility of terminating her/his employment, and, moreover, by creating conditions for engagement, it is possible to acquire new employees. The second reason is the current demographic trend, where the ageing population negatively affects the activities directed towards increasing the amount of labour in agriculture. There are also opportunities caused by the technological development where modern and innovative technologies can attract young people into this sector for work. The COVID-19 pandemic has significantly contributed to changes in individual and collective values by pausing, immersion inside and rethinking the operating model from a long-term point of view. Food self-sufficiency comes to the fore, there are increasing demands on agrarian product quality and food safety. People are heading more towards nature, to the countryside and they realise the need for meaningful work. According to the research of Barrett Values Centre (2021), the energy of organisations has transformed to the agility, engagement, innovation, well-being of employees, sustainability, and information sharing due to the pandemic. The management of agricultural enterprises should react to these facts and should make the effort to acquire and retain employees by offering working conditions aligned with their individual values.

Research undertaken on an employee's work engagement in agriculture has been aimed at its ascendants, leadership roles (Rahmadani et al. 2020), workplace ethics (Baldoz and Guhao 2020) by supporting engagement towards work autonomy (Lee and Teh 2021) and internal motivation (Karimi and Sotoodeh 2019). All the stated realised studies just partly covered this re-

search area. Many significant factors in the agricultural sector environment in the context of work engagement have not yet been included in the research. A significant knowledge gap still remains which creates space for further research, which is the basis of the research model of this study. The aim is to explore the interrelationships between the variables: work engagement (*WE*), the support of the direct manager (*SDM*), organisational trust (*OT*) and job autonomy (*JA*). We are interested not only in the direct effects of *SDM* and *WE* but also in the possibilities of their mediation through *OT* and *JA*. We consider the identified variables influencing work engagement as key factors, mainly in the crisis period that the agricultural sector is facing.

Literature overview and hypotheses

Modern agricultural enterprises that desire to stay competitive need engaged employees. The aim of this paper is to analyse the possible influence of the critical variables (*SDM*, *OT*, and *JA*) on the work engagement of the employees in agricultural enterprises and to find out their interrelationships. We are starting from the understanding of engagement as the dominant factor influencing the productivity of the employees and the whole team (Rahmadani et al. 2020), as well as affecting the profitability of the agricultural enterprise (Demerouti et al. 2015; Schneider et al. 2017; Lee and Teh 2021).

According to Bakker et al. (2011), work engagement is the combination of the ability to work (energy, spirit) and the willingness to work (involvement, dedication). It relates to a positive emotional and intellectual commitment that an employee feels towards the enterprise and which overlaps with the scope of job satisfaction and retention (Shuck et al. 2016). Previous research of Bakker et al. (2011) and Schneider et al. (2017) proved that the main driving forces of work engagement are mainly various working resources like skill variety, job control, and learning opportunities along with personal sources (self-efficacy, proactivity, optimism). Work demands (e.g. workload, role conflicts, emotional demands) play a secondary role. According to Hakanen et al. (2019), individual factors (e.g. education), work factors (e.g. contracts) and context factors (e.g. profession, industry) influence the level of the employee's work engagement. Working factors seem to be the most significant determinants with regards to work engagement.

Enterprises have two possibilities in supporting the engagement – either a top-bottom or bottom-top approach (Bakker 2017). The bottom-top approach includes transformational managerial interventions. En-

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agement supported by the bottom-top approach uses proactive strategies that employees can apply by themselves, including job autonomy and self-management support. The combination of a strategic and proactive approach promotes the engagement of employees by optimising the working environment (Bakker 2017).

Many studies (Masih et al. 2013) accentuate on the fact that employee non-engagement at work might often be due to the working relationships with managers when employees are not able to communicate effectively and they do not have the competencies to make decisions. Employees need managers who will support them, and who are dedicated to the organisation. After that, managers can expect employees to invest more effort in their work and to do so with their full commitment.

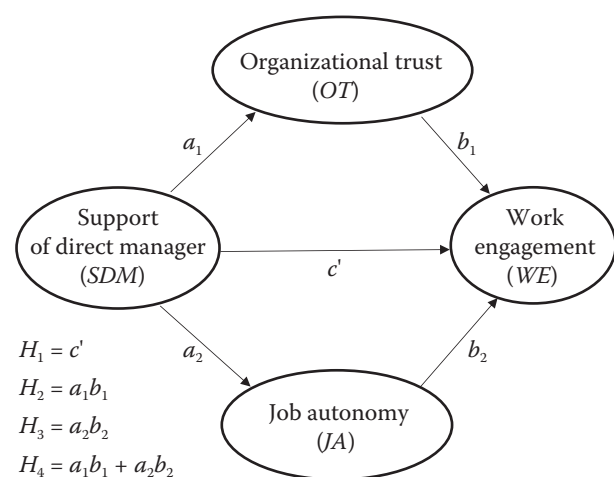
For the individuals and teams to be effective, they need the support of their managers (Rahmadani et al. 2020). *SDM* includes supportive behaviour, rewarding, performance recognition, empowerment of the subordinates, care about their needs, and proof of their integrity and skills to lead. In various working environments, it is an important determinant of work satisfaction and work engagement (Griffin et al. 2001; Taipale et al. 2011). When employees feel that the organisation provides them with a supportive, involved, and demanding environment which suits their needs, it is more possible that they will be engaged, or willing to react by investing time, energy, and psychological involvement into the work (Bakker et al. 2011). Hakanen and Roodt (2010), Kahn (2010), and Mauno et al. (2010) similarly identified the need of managerial support as one of the significant assumptions of employee work engagement.

***H₁*: We expect that *SDM* is positively related with the *WE* of agricultural employees.** Organisational trust is considered to be one of the most important behavioural attributes in the organizational context (Chams-Anturi et al. 2020) and a significant benefit for the enterprise because it can effectively lower the supervision costs, supports the cooperation between the employees and contributes to the competitiveness (Hogan et al. 1994). Generally, trust is important in any working relationship that involves interdependence, cooperative behaviour, and teamwork (Kidron et al. 2016). Trust is also the primary concept of the exchange theory which expects that, by the common trust of subordinates and managers, it is easier to build a high-quality relationship (Ohemeng et al. 2019). According to the Li et al. (2007) study, employee trust in their direct manager, colleagues and top management has a positive impact on their work performance. As Schneider et al. (2017) state, the main driving force

of employee engagement is the context of the work where people perceive the interest and support of their managers as showing their interest in the people.

***H₂*: We expect the relationship between the *SDM* and *WE* is mediated by the *OT*.** According to Cai et al. (2018), job autonomy is the extent to which an individual can decide about the work methods, processes, and effort to fulfil the tasks and is one of the psychological valuables which contribute to the employee's performance. Employees of agricultural enterprises who have higher work autonomy will have better performance (Ilyash et al. 2019; Karimi and Sotoodeh 2019; Lee and Teh 2021), because they can feel bigger responsibility for the results, and can experience meaningfulness based on the feeling of their own control (Cai et al. 2018). Previous studies confirmed that job autonomy along with the managerial style and the possibility that employees are allowed to develop belong to the substantial factors supporting work engagement (Molletsane et al. 2019; Soliman and Wahba 2019). In the same way, according to Naqvi et al. (2013) and Clement and Eketu (2019), organisations profit from a high level of autonomy in the workplace by increasing the engagement of their employees. The maturity and competencies of managers play a significant part in determining the degree of accepting the work autonomy by the company or, respectively, monitoring the managerial procedures (Gerten et al. 2018).

***H₃*: We expect that the relationship between the *SDM* and *WE* is moderated by the *JA*.** As long as the variables chosen by us are not separately interacting in the social system of the enterprise and



$H_1 = c'$
 $H_2 = a_1b_1$
 $H_3 = a_2b_2$
 $H_4 = a_1b_1 + a_2b_2$

Figure 1. Theoretical model of the study

c' – direct effect; a_1b_1 – indirect effect through organizational trust (OT); a_2b_2 – indirect effect through job autonomy (JA)

Source: Author's own elaboration

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in many studies, they have been subject to examination in various contexts and combinations (Schneider et al. 2017; Rahmadani et al. 2020; Lee and Teh 2021), we have researched their mutual interaction in relation to the *SDM* and *WE*.

H_4 : We expect that the relationship between the *SDM* and *WE* is mediated by the *OT* and *JA* at once. The research model is illustrated in Figure 1.

MATERIAL AND METHODS

Sample and data collection

The basis of this study was a questionnaire survey undertaken from December 2021 to January 2022. Information was requested from managers of the agricultural enterprises involved in the INFOMA Business Trading database in Slovakia, which includes data about 1 266 enterprises in the agricultural area of primary production. The selected 300 enterprises were electronically sent a request for cooperation and they were informed about the aim of the study accenting the anonymity and the possibility to gain the results of the study after its processing. The enterprises addressed for cooperation were selected based on a stratified selection with the purpose of ensuring representation in the individual categories of agricultural enterprises according to the criteria of size, legal form, localisation, and production specialisation. Fifty-three enterprises agreed with the participation. Through communication with the top managers of the enterprises, the questionnaires were distributed among their employees which were the respondents of the research.

The employees anonymously filled in the structured questionnaire in a printed form which was subsequently inserted into a database by the members of the research team. A total of 680 relevant questionnaires were acquired. The average number of employees per enterprise was 12.83. Of 53 enterprises, 24 were agricultural associations and 29 were business enterprises, while, from the point of view of the size category, these enterprises have a number of employees from 10 to 49 (34%) and from 50 to 249 (66%). The production focus of these enterprises was combined production (39%), crop production (41%) and animal production (20%). The sample of the employees was as follows: 51% men and 49% women; 64% of the respondents have a high school or lower education, 36% have a college education; 78% were employees without a managerial position, 22% of respondents were middle managers; the average length of employment was 12.6 years and the average age was 43.2 years.

In the introduction of the questionnaire, the aim of the study was explained which accentuated the anonymity with the agreement of the voluntary participation in the survey. We asked the employees to express their standpoint on the individual statements. The questionnaire involved a set of 29 indicator variables. The items were evaluated on the Likert scale and are stated in the Measures section. Each latent variable was measured using items from established measures, which are available in English. For establishing a semantic equivalence, we used back-translation before administering the instrument. Bilingual experts translated the instrument from English to Slovak and then back again into English and, subsequently, in the case of inconsistencies, each item was reworded to establish the conformity of the meaning. Besides, we tried to use short, simple sentences and repeated nouns instead of using pronouns. To mitigate common method bias, which often arises, we randomly dispersed, mixed and overturned the scale of certain responses and also divided the questionnaire and presented each part in a different context, so that the respondents were not influenced by their previous responses and their idea of the results.

Measures

Work engagement (*WE*). *WE* was measured by a shortened version of the Utrecht Work Engagement Scale (UWES), which is, according to Schaufeli et al. (2006), a great tool for measuring this latent value. It includes nine items which were measured by the 5-point Likert scale (1 = never; 5 = always). Examples of the items: 'By working, I feel burst of energy', 'I am proud of the work I am doing', and 'I get carried away working'.

Support of the direct manager (*SDM*). *SDM* is measured by a valid tool, developed by Choi (2012), which includes four items scaled by a 5-point Likert-type scale (1 = strongly disagree; 5 = strongly agree). Examples of the items: 'I have trust and confidence in my manager', 'My manager supports my need to balance work and other life issues', and 'Manager in my work unit provide employees with the opportunities to demonstrate their leadership skills'.

Organisational trust (*OT*). This value was measured by the Organizational Trust Inventory, developed by Nyhan and Marlowe (1997). It includes four items related to the trust in an enterprise. Examples of the items: 'The level of confidence that this organization will treat me fairly', 'The level of trust between supervisors and workers in the organization', 'The level of trust among the people I work with on a regular basis', and 'The degree to which we can depend on each

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other in the organization'. A 5-point Likert type scale (1 = strongly disagree; 5 = strongly agree) was used.

Job autonomy (JA). JA was measured by Job Diagnostic Survey (JDS) developed by Hackman and Oldham (1974). Employees expressed their agreement/disagreement with three items of the JA. The 5-point Likert scale was used (1 = strongly disagree; 5 = strongly agree). Example of the items: 'I have freedom doing my job the way I want to', 'I have the opportunity for independent and individual initiative', 'I have a high level of diversity in my job'.

Control variables. The controlling variables were the legal form, size of the enterprise from the point of view of the number of employees, region, and employee's criteria (age, length of work experience) which were chosen for the reason of their possible impact on the examined relationships based on existing studies. In the study of Moore et al. (2020), the positive context of the position, employee's gender and employment duration in agricultural enterprises and their engagement was confirmed. Hakanen et al. (2019) confirmed the connection between employee engagement and the size of the enterprise. Urbancová and Vrabcová (2020) considered the age as a significant variable in the context of examining the engagement of agricultural employees.

Data analysis

The basis of our study is a theoretical model developed on the basis of a wide scale of knowledge about the relationship of individual variables. We used partial least squares structural equation modeling (PLS-SEM) to test our research model and suggested hypotheses to better understand the relationships between the individual selected constructs, which allows one to test more hypotheses at once in the context of direct and indirect effects in a complex system (Ringle et al. 2018). We decided to use it for numerous reasons – one of them is the relatively small size of the sample. Another reason is the complexity of the research model, with the study focus on the prediction of the dependent variable for the predictive aims.

We worked with the SmartPLS 3.0 software, which allows one to assess the measurement and the structural model at the same time.

RESULTS AND DISCUSSION

Measurement model. The measurement model analyses the reliability and validity of the purposed model. At first, we measured the collinearity indica-

tor using variational inflation factor (VIF). All the VIFs resulting from a full collinearity test are equal to or lower than 3.3. After implementation of the collinearity statistics in SmartPLS, we found that the inner VIF values are all lower than 3.3 and the model can be considered free of the common method bias. By using the PLS algorithm, we examined the reliability requirement of the measured model and found that all the standardised loadings are greater than 0.70 (Chin 2010). Meanwhile, the requirement of the internal construct reliability is met (Table 1). Cronbach's alpha (CA) and the composite reliability (CR) indicator corresponds to all the constructs (CA from 0.858 to 0.956, CR from 0.905 to 0.972). Another tool we used was rho_A, which also complies to the constructs (scale from 0.872 to 0.956), as its value should be between the CA and CR values according to recommendations (Ringle et al. 2018). The validity of the model was measured by the average variance extracted (AVE) of the convergent validity, by the Fornell-Larcker criterion, and the heterotrait-monotrait ratio (HTMT) criterion cross-loading for discriminant validity. All the gained results comply with the constructs. AVE overlaps the level of 0.5 (Chin 2010) for all the constructs, which means that the construct explains an average of at least 50% of its item's variance. In the Fornell-Larcker criterion, the square-root of the AVE for the construct was greater than the inter-construct correlation. The HTMT values, measured as the mean value of the indicator correlations across the constructs, were lower than 0.85–0.9 (Ringle et al. 2018). Through cross-loading, we confirmed the factor loading to the maternal constructs. We concluded that discriminant validity was established.

Structural model. The structural model measures the given relationships and confirms the hypotheses. It is necessary to confirm the goodness of the model through the predictive capability and the predictive relevance. The first requirement is confirmed by the calculation of the R^2 coefficient. This coefficient is determined by the strength of each structural path determined by the R^2 value for the dependent variable (Bernal-Conesa 2017). The value R^2 should be equal to or greater than 0.1. The results in Table 1 show that all the R^2 values are greater than 0.1. Hence, the predictive capability is established. The second requirement (the predictive relevance of the endogenous constructs) is measured by the Q^2 (Stone-Geisser value) coefficient calculation. Q^2 values above 0 show that the model has predictive relevance. The results show that there is significance in the prediction of the constructs (Table 1).

Table 1. Effects results

Structural paths	Original sample	Sample mean	SD	<i>t</i> -statistics	<i>P</i> -value
Mediation through JA and OT at once					
<i>SDM</i> → <i>WE</i> (total effect)	0.896	0.896	0.012	73.414	0.000
<i>SDM</i> → <i>WE</i> (direct effect)	0.270	0.270	0.031	8.655	0.000
<i>SDM</i> → <i>WE</i> (total indirect effect)	0.626	0.626	0.024	26.247	0.000
<i>SDM</i> → <i>JA</i> → <i>WE</i> (indirect effect)	0.275	0.274	0.029	9.456	0.000
<i>SDM</i> → <i>OT</i> → <i>WE</i> (indirect effect)	0.351	0.352	0.017	20.941	0.000
<i>SDM</i> → <i>OT</i>	0.801	0.801	0.016	48.747	0.000
<i>SDM</i> → <i>JA</i>	0.873	0.873	0.013	67.015	0.000
<i>OT</i> → <i>WE</i>	0.438	0.439	0.020	21.530	0.000
<i>JA</i> → <i>WE</i>	0.315	0.314	0.035	9.048	0.000
Mediation through JA					
<i>SDM</i> → <i>WE</i> (total effect)	0.897	0.897	0.012	75.973	0.000
<i>SDM</i> → <i>WE</i> (direct effect)	0.338	0.337	0.038	8.979	0.000
<i>SDM</i> → <i>JA</i> → <i>WE</i> (indirect effect)	0.559	0.560	0.030	18.886	0.000
<i>SDM</i> → <i>JA</i>	0.873	0.874	0.013	68.041	0.000
<i>JA</i> → <i>WE</i>	0.640	0.641	0.037	17.349	0.000
Mediation through OT					
<i>SDM</i> → <i>WE</i> (total effect)	0.896	0.896	0.012	75.940	0.000
<i>SDM</i> → <i>WE</i> (direct effect)	0.421	0.422	0.025	16.986	0.000
<i>SDM</i> → <i>OT</i> → <i>WE</i> (indirect effect)	0.475	0.474	0.018	27.070	0.000
<i>SDM</i> → <i>OT</i>	0.801	0.801	0.017	46.966	0.000
<i>OT</i> → <i>WE</i>	0.592	0.593	0.025	23.861	0.000

SDM – support of the direct manager; *WE* – work engagement; *OT* – organizational trust; *JA* – job autonomy; $P < 0.05$
Source: Author's own elaboration

Furthermore, the model fit was assessed using standardised root mean squared residual (SRMR), whose values indicate that the model fit should be lower than or equal to 0.100 (Hair et al. 2017). The value of SRMR was 0.092 [Table S1 in electronic supplementary material (ESM); for the ESM see the electronic version]. Further verification results of the stated hypotheses are introduced in Table 1.

The empirical model of the study is included in Figure S1 in ESM (for the ESM see the electronic version).

All the direct effects are significant and the indirect effects are also significant. Based on the results, we concluded that H_1 has support. The *SDM* is positively connected with the *WE* of agricultural employees ($\beta = 0.896$, $P < 0.05$).

H_2 also has support. The relationship between the *SDM* and the *WE* is mediated by the *OT*. The indirect effect of the *OT* is significant ($\beta = 0.475$, $P < 0.05$). It is an incomplete mediation because the action of the indirect effect on the overall effect is less than 80% (53% indirect, 47% direct effect).

Based on the results, H_3 has support. The relationship between the *SDM* and the *WE* is mediated. The indirect effect of the *JA* is significant ($\beta = 0.559$, $P < 0.05$). Also, it is an incomplete mediation because the action of the indirect effect on the overall effect is less than 80% (62% indirect, 38% direct effect).

H_4 also has support, which is the mediation action of two mediators. This means that, on the overall effect of the *SDM* and *WE* ($\beta = 0.896$), the *SDM* contributes with its direct effect ($\beta = 0.270$) by just 30%. The other 70% of the overall effect goes through the *OT* and *JA*. From their interaction, the variable *OT* ($\beta = 0.351$, $P < 0.05$) is more significant compared to the variable *JA* ($\beta = 0.275$, $P < 0.05$).

Control variables were included into the model through multigroup analyses (MGAs) and moderating. The MGAs include analyses of the differences of the individual paths for men and women, for the employees based on the highest education and according to the managerial or non-managerial position. The MGAs were also used in examining the differ-

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Table 2. Moderating effect of tenure, age and business size

Structural paths and moderating effects	Original sample	Sample mean	SD	<i>t</i> -statistics	<i>P</i> -value
<i>SDM</i> → <i>WE</i>	−0.225	−0.229	0.056	3.988	0.000
Tenure → <i>WE</i>	1.022	1.029	0.052	19.787	0.000
Moderating effect tenure → <i>WE</i>	0.092	0.089	0.037	2.490	0.013
<i>SDM</i> → <i>WE</i>	0.707	0.707	0.038	18.389	0.000
Age → <i>WE</i>	0.026	0.030	0.054	0.482	0.630
Moderating effect age → <i>WE</i>	−0.159	−0.157	0.064	2.473	0.014
<i>SDM</i> → <i>WE</i>	0.785	0.787	0.017	45.687	0.000
Business size → <i>WE</i>	0.041	0.039	0.048	0.855	0.393
Moderating effect of business size → <i>WE</i>	−0.105	−0.103	0.049	2.137	0.033

SDM – support of the direct manager; *WE* – work engagement; $P < 0.05$

Source: Author's own elaboration

ences in the individual paths according to the orientation of the enterprise and legal form. By implementing MGAs, we confirmed the invariance of the measuring tool according to the measurement invariance of composite models (MICOM) procedure (Henseler et al. 2015). The MGAs were performed by the permutation method and the PLS-MGA method.

Significant differences were found by two criteria which were the employee position and the criteria legal form (Table S2 in ESM; for the ESM see the electronic version). By the other examined criteria, no significant differences were recorded.

The influence of the *SDM* on the *WE* and *JA* is notably higher by the managerial position. This also influences the strength of the *JA* influence on the *WE*.

At the same time, it was confirmed, that the influence of the *JA* and *OT* on the *WE* is significantly higher in business enterprise employees than in the case of agricultural associations.

Moderating was used by determining the effect of the length of the employee's employment in the enterprise and their age on the examined relationship of the *SDM* and *WE* and by examining the influence of the enterprise on the relationship.

The results of the analyses confirm that the moderating effect of the enterprise size is significant, but negative ($\beta = -0.105$, $P < 0.05$) (Table 2). *SDM* significantly influences employee engagement in small enterprises.

The moderating effect of the employee's age is also significant, but negative ($\beta = -0.159$, $P < 0.05$) (Table 2). It follows that direct manager support influences the engagement of younger employees.

The moderating effect of the length of employment is significant ($\beta = 0.092$, $P < 0.05$) (Table 2). The influence of the *SDM* on the *WE* increases with the employee's

seniority. The moderating effects of the company size, employee age, and length of employment are graphically presented in Figures S2–S5 in ESM (for the ESM see the electronic version).

DISCUSSION

According to the results of the study, the employee *WE* of agricultural enterprises is influenced by multiple factors. The *SDM* ($\beta = 0.896$) has a significant direct influence which complies with the Li et al. (2007), Bakker et al. (2011), Rahmadani et al. (2020) studies about the mutual positive relationship of these two variables. Confirmation of this finding was verified in different conditions.

Following the existing studies (Hakanen and Roodt 2010; Mauno et al. 2010; Bakker et al. 2011; Nguyen and Pham 2020; Rahmadani et al. 2020), we examined the mechanism of the *SDM* effect on the employee *WE* in-depth, anticipating that the important supporting factor is autonomy which employees feel in their workplace and their trust in their employer. The findings proved the mediation effects of these two variables. Our findings follow the previous studies which also confirmed the existence of a positive relationship between workplace autonomy and employee engagement (Taipale et al. 2011; Tensay and Singh 2020; Lee and Teh 2021). According to Nguyen and Pham (2020), managers can support engagement by involving the employees in the decision-making process, planning the tasks, and widening their autonomy. If employees get the freedom and opportunity to take part in the decision-making, they will submit their proposals and provide feedback about how the enterprise is working, and they will be more engaged (Tensay and Singh

2020). Similarly, it supports the findings of Li et al. (2007) and Schneider et al. (2017), according to whom, the employee's trust of the enterprise positively influences work performance.

On the overall effect, the *SDM* participates on the *WE* with a direct effect ($\beta = 0.270$) by just 30%, while the other 70% of the overall effect is mediated by the *OT* and *JA*, which proves its significance by influencing the employee work engagement. From these two variables, the variable *OT* ($\beta = 0.351$) has a bigger significance in comparison with the variable *JA* ($\beta = 0.275$). From the above-stated information, it follows that the direct support of employees from management is important when influencing work engagement, but it is possible to provenly support its effect through *OT* and *JA*. By integrating these tools to the enterprise management, the overall effect significantly increases while the biggest indirect influence is caused by the interaction of both variables against their individual actions. Thus, it is important for agricultural enterprises to use these tools in an integrated way in their interaction which can lead to a proven engagement increase. The targeted building of a trust culture in organisations followed with a higher level of employee autonomy in their work positions is an appropriate strategy. The culture of trust, which seems to be important in interaction, whose isolated influence effect is lower ($\beta = 0.475$), includes the trust in the co-workers and in the managers. If the organisation manages to create a mutual trust atmosphere, it can lead to an increase in competitiveness through a decrease in costs on control mechanisms by supporting cooperation between its members (Hogan et al. 1994).

The level of autonomy on the examined relationships is weaker by its interaction, but, on the contrary, by its isolation, is more significant ($\beta = 0.559$), it supports the employees' responsibility for dedicated tasks and the meaningfulness of their work belong to the important factors in which employees expect in the work process. Our conclusions follow the findings of Clement and Eketu (2019), Karimi and Sotoodeh (2019), and Lee and Teh (2021), who similarly prove that a high level of autonomy in the workplace leads to an increase in employee engagement from which organisations can profit.

The age and length of employment of the employee and the size of the enterprise where the employees work were the proven moderating effects. The moderating effect of the enterprise's size is significant and negative which means that, in smaller businesses, the support of direct managers has a more pronounced in-

fluence on the engagement of its employees. The reason can be the more immediate contact of the management with the employees which allows the creation of a closer relationship and better trust. Thanks to a lower level of specialisation of the individual employees, a higher need of support by fulfilling tasks can arise, if employees get it, they feel engaged. In bigger enterprises, and possibly thanks to their more complicated organisational structures and less intensive management contact with employees, the effect of the *SDM* on the *WE* can partly weaken. The moderating effect of the employee's age is similarly significant and negative. The relationship of the *SDM* and *WE* is stronger in younger employees who need the support of their manager more for their own engagement. The reason can be a lower level of their self-confidence when performing work. On the other hand, a significant positive moderating effect of the employee length of employment on the examined relationship was proven, which seems to be in contradiction. In this case, further research would be necessary.

Our findings point out significant differences in the paths *SDM*–*WE*, *JA*–*WE* and *SDM*–*JA*, in favour of employees in managerial positions along with the paths *JA*–*WE* and *OT*–*WE* in favour of business companies compared to the legal form of an agricultural association. In this case, we can assume that managers realise the significance of job autonomy and trust and they appreciate it more. The results also indicate that agricultural enterprises, which operate as business organisations, focus on the topics of job autonomy and trust culture creation more in comparison with agricultural associations.

Our study has multiple theoretical and practical implications. On the theoretical level, it broadens the existing knowledge about the current topic of work engagement of employees in agriculture. Firstly, with a discussion surrounding the direct agricultural manager's support of their employees, we can better understand the direct impacts and the overall combined effects on work engagement. Secondly, the findings can deepen the understanding of the relationships leading to the work engagement of the employees' mechanism in a global context because the challenges of the current agricultural sector are comparable for developing countries and, despite the natural local specifics, the interaction of the examined variables can be considered as universal.

On a practical level, our findings have important implications for agricultural managers and enterprises. Worldwide, an insufficient level of workforce

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engagement affects the enterprises in agriculture. Engaged employees also require, besides the direct support of their managers, the support of a culture built on trust and a feeling of freedom and the possibility to autonomously make decisions. Enterprises should respect this when setting the processes of human resource management, which complies with the recommendations of Moore et al. (2020). Here, there a large space arises for the implementation of current approaches in people management in which a partner approach to the employees with a high rate of individualisation is preferred. Positive results are approachable by using the coaching approach in management where employees are supported by managers who take an active approach and look for their own solutions. Therefore, the rate of their autonomy strengthens the trust of the manager. It is the implementation of the coaching approach to people management that appears to be an appropriate way for agrarian enterprises which integrate and support the interaction of the examined factors. Investment into the instruments and time in the development of managers in this way has the potential to be a significant source for employee engagement support.

Another important piece of knowledge is that all the stated factors work intensively in an interaction where the effect is strengthened. Agricultural enterprises should support a culture built on trust through their organisational structures, design jobs to have a certain autonomy level integrated in the job performance and also properly supplement it with employee support from managers. This attitude has the potential to significantly increase the enterprise performance through the individual involvement and engagement of their employees.

Limitations. Our study has a few limitations. The first is the relatively limited number of respondents (680) considering the overall number of employees in agricultural enterprises in Slovakia. On the other hand, the enterprises that were involved in the research were from all regions of Slovakia, which supports the generalisation of the results for the Slovak agricultural sector. Also, based on the global character of the problem of low employee engagement and the mutual specifics of agricultural enterprises as employers, our study can support the generalisation of the results in the context of the agricultural sector of the least developed European countries. A limitation can be the non-use of a pilot survey as one of the best practices for verifying the validity and methodological soundness of the used constructs. We used other recommendations that we considered

sufficient. Even though we used a few steps for measuring the common method bias, we did not implement one of them which should include data collection from various resources that has been requested not only from the employees. Consequently, future research can focus on involving other factors dealing with employee engagement. Finally, in addition to the factors concerned in this study, there may be other factors that may influence the examined relationships. In the future, it is possible to combine other theories and make a complex analysis from various points of view. Our model worked with sectional rather than longitudinal data, which may be unable to reflect the real causal relationship because of the time-lag effect, and the use of panel data could be a future direction.

CONCLUSION

The results of the study have proven the validity of all four formulated hypotheses. The direct manager support positively mediated the work engagement of agrarian employees meanwhile this relationship is mediated by the job autonomy and also by the atmosphere of organisational trust which act like the relationship mediators. In their contemporary interaction, the impact of organizational trust is more significant compared to the degree of job autonomy. The findings draw attention to the fact that direct manager support significantly influences employee engagement in smaller enterprises. Based on the sample character, which is not possible to be considered fully representative, the study represents a significant introduction to the deeper examination of this topic. Due to the insufficient amount of labour, not only in the agricultural sector, the topic of employee engagement will be the centre of the employers' attention over a long period. Recognition of the factors which significantly affect it and their interrelations can bring important benefits when setting the human resource management system. In case the agricultural sector wants to be a competitive employer, it is necessary for the companies to pay attention to the qualifications of their own management supporting the employees, building a culture of mutual trust and creative work positions while incorporating elements of autonomy. In the same way, implementation of the coaching approach to people management has the potential to support the examined factors – the autonomy in the decision-making and organisational support felt by the employee. This strategy seems to be appropriate for supporting enterprise performance through an increase in workforce engagement.

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REFERENCES

- Bakker A.B. (2017): Strategic and proactive approaches to work engagement. *Organizational Dynamics*, 46: 67–75.
- Bakker A.B., Albrecht S.L., Leiter M.P. (2011): Work engagement: Further reflections on the state of play. *European Journal of Work and Organizational Psychology*, 20: 74–88.
- Baldoz N.A., Guhao E.S. (2020): Causal model on work engagement of the agriculture sector employees in Davao Region. *Review of Integrative Business and Economics Research*, 9: 475–506.
- Barrett Values Centre (2021): Global COVID-19 Culture Assessment. Barrett Values Centre. Available at <https://www.valuescentre.com/global-covid-19-culture-assessment/> (accessed March 20, 2022).
- Bernal-Conesa J.A. (2017): Impacts of the CSR strategies of technology companies on performance and competitiveness. *Tourism & Management Studies*, 13: 73–81.
- Cabello-Medina C., López-Cabrales Á., Valle-Cabrera R. (2011): Leveraging the innovative performance of human capital through HRM and social capital in Spanish firms. *The International Journal of Human Resource Management*, 22: 807–828.
- Cai W., Lysova E.I., Khapova S.N., Bossink B.A.G. (2018): Servant leadership and innovative work behavior in Chinese high-tech firms: A moderated mediation model of meaningful work and job autonomy. *Frontiers in Psychology*, 9: 1767.
- Chams-Anturi O., Moreno-Luzon M.D., Romano P. (2020): The role of formalization and organizational trust as antecedents of ambidexterity: An investigation on the organic agro-food industry. *BRQ Business Research Quarterly*, 25: 243–264.
- Chin W.W. (2010): How to write up and report PLS analyses. In: Esposito Vinzi V., Chin W.W., Henseler J., Wang H. (eds.): *Handbook of Partial Least Squares: Concepts, Methods and Applications*. Berlin, Germany, Springer: 655–690.
- Clement O.I., Eketu C.A. (2019): Organizational climate and employee engagement in banks in rivers state, Nigeria. *International Journal of Advanced Academic Research*, 5: 57–84.
- Demerouti E., Bakker A.B., Gevers J.M.P. (2015): Job crafting and extra-role behavior: The role of work engagement and flourishing. *Journal of Vocational Behavior*, 91: 87–96.
- Gerten E., Beckmann M., Bellmann L. (2018): Controlling Working Crowds: The Impact of Digitalization on Worker Autonomy And Monitoring Across Hierarchical Levels. Working papers from Faculty of Business and Economics – University of Basel. Available at https://econpapers.repec.org/paper/bslwpaper/2018_2f09.htm (accessed March 15, 2022).
- Griffin M.A., Patterson M.G., West M.A. (2001): Job satisfaction and teamwork: The role of supervisor support. *Journal of Organizational Behavior*, 22: 537–550.
- Hackman J.R., Oldham G.R. (1974): The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects. *Catalog of Selected Documents in Psychology*, 4: 148–149.
- Hair J., Hollingsworth C., Randolph A., Chong A. (2017): An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117: 442–458.
- Hakanen J.J., Ropponen A., Schaufeli W.B., DeWitte H. (2019): Who is engaged at work? *Journal of Occupational and Environmental Medicine*, 61: 373–381.
- Hakanen J.J., Roodt G. (2010): Using the job demands – Resources model to predict engagement: Analyzing a conceptual model. In: Bakker A.B., Leiter M.P. (eds.): *Work Engagement: A Handbook of Essential Theory and Research*. New York, US, Psychology Press: 85–102.
- Henseler J., Ringle C.M., Sarstedt M. (2015): A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43: 115–135.
- Hogan R., Curphy G.J., Hogan J. (1994): What we know about leadership: Effectiveness and personality. *American Psychologist*, 49: 493.
- Ilyash O., Yildirim O., Capuk S., Bozgul N. (2019): The impact of work autonomy and organizational commitment on organizational communication. *Behavior Studies in Organizations*, 2: 10–17.
- Kahn W.A. (2010): The essence of engagement: Lessons from the field. In: Albrecht S.L. (ed.): *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice*. Cheltenham, United Kingdom/Northampton, US, Edward Elgar: 20–30.
- Karimi S., Sotoodeh B. (2019): The mediating role of intrinsic motivation in the relationship between basic psychological needs satisfaction and academic engagement in agriculture students. *Teaching in Higher Education*, 25: 959–975.
- Kidron A., Tzafirir S.S., Meshoulam I. (2016): All we need is trust: Trust and human resource management. *Team Performance Management*, 22: 139–155.
- Lee K., Teh B.A. (2021): Employee engagement in the agriculture industry of Malaysia during EMCO. *Oxford Journal of Technology, Arts, Sciences and Knowledge*, 3: 1–16.
- Li N., Yan J., Jin M. (2007): How does organizational trust benefit work performance? *Frontiers of Business Research in China*, 1: 622–637.
- Masih E., Singh V.P., Tirkey M.R. (2013): Employee engagement: Engaging employees at work place. *International Journal of Management*, 4: 69–77.

<https://doi.org/10.17221/92/2022-AGRICECON>

- Mauno S., Kinnunen U., Makikangas A., Feldt T. (2010): Job demands and resources as antecedents of work engagement: A qualitative review and directions for future research. In: Albrecht S.L. (ed.): *Handbook of Employee Engagement: Perspectives, Issues, Research and Practice*. Cheltenham, United Kingdom/Northampton, US, Edward Elgar: 111–128.
- Moletsane M., Tefera O., Migiro S. (2019): The relationship between employee engagement and organisational productivity of sugar industry in South Africa: The employees' perspective. *African Journal of Business and Economic Research*, 14: 113–134.
- Moore S.J., Durst P.T., Ritter C., Nobrega D., Barkema H.W. (2020): Effects of employer management on employee recruitment, satisfaction, engagement, and retention on large US dairy farms. *Journal of Dairy Science*, 103: 8482–8493.
- Naqvi S.M.M., Ishtiaq M., Kanwal N., Ali M. (2013): Impact of job autonomy on organizational commitment and job satisfaction: The moderating role of organizational culture in fast food sector of Pakistan. *International Journal of Business and Management*, 8: 92–102.
- Nguyen L.G.T., Pham H.T. (2020): Factors affecting employee engagement at not-for-profit organizations: A case in Vietnam. *The Journal of Asian Finance, Economics and Business*, 7: 495–507.
- Nyhan R.C., Marlowe H.A. Jr. (1997): Development and psychometric properties of the organizational trust inventory. *Evaluation Review*, 21: 614–635.
- Ohemeng F.L.K., Obuobisa Darko T., Amoako-Asiedu E. (2019): Bureaucratic leadership, trust building, and employee engagement in the public sector in Ghana: The perspective of social exchange theory. *International Journal of Public Leadership*, 16: 17–40.
- Rahmadani V.G., Schaufeli W.B., Stouten J., Zhang Z., Zulkarnain Z. (2020): Engaging leadership and its implication for work engagement and job outcomes at the individual and team level: A multi-level longitudinal study. *International Journal of Environmental Research and Public Health*, 17: 776.
- Ringle C.M., Sarstedt M., Mitchell R., Gudergan S.P. (2018): Partial least squares structural equation modeling in HRM research. *The International Journal of Human Resource Management*, 31: 1617–1643.
- Schaufeli W.B., Bakker A.B., Salanova M. (2006): The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66: 701–716.
- Schneider B., Yost A.B., Kropp A., Kind C., Lam H. (2017): Workforce engagement: What it is, what drives it, and why it matters for organizational performance. *Journal of Organizational Behavior*, 39: 462–480.
- Shuck B., Adelson J.L., Reio T.G. (2016): The employee engagement scale: Initial evidence for construct validity and implications for theory and practice. *Human Resource Management*, 56: 953–977.
- Soliman M., Wahba M.S. (2019): Investigating influencers of employee engagement in travel agents in Egypt. *Anatolia*, 30: 75–89.
- Taipale S., Selander K., Anttila T., Nätti J. (2011): Work engagement in eight European countries. *International Journal of Sociology and Social Policy*, 31: 486–504.
- Tensay A.T., Singh M. (2020): The nexus between HRM, employee engagement and organizational performance of federal public service organizations in Ethiopia. *Heliyon*, 6: 04094.
- Urbancová H., Vrabcová P. (2020): Age management as a human resources management strategy with a focus on the primary sector of the Czech Republic. *Agricultural Economics – Czech*, 66: 251–259.

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