

INDUSTRIALIZATION FED LABOR MIGRATION IN THE COUNTRYSIDE TASIKMALAYA'S TRANSITION FROM AGRICULTURE TO THE CRISPY SNACKS INDUSTRY

by D. Yadi Heryadi

Submission date: 22-Mar-2023 01:49PM (UTC+0700)

Submission ID: 2043368871

File name: S_TRANSITION_FROM_AGRICULTURE_TO_THE_CRISPY_SNACKS_INDUSTRY.pdf (817.66K)

Word count: 8035

Character count: 44966

Journal of Hygienic Engineering and Design

Volume 36



Journal of Hygienic Engineering and Design – Volume 37

Journal sections:

- [Hygienic Engineering and Design](#)
- [Food Quality and Safety](#)
- [Food Production and Processing](#)

HYGIENIC ENGINEERING AND DESIGN

1. Ivan Topalov, Nikolay Shopov, Dimitar Meshev, Tzvetelin Dessev (2021). **Automatic conductometric analyzer of inhomogeneous dispersed multiphase systems.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.

FOOD QUALITY AND SAFETY

1. Miroslava Kačániová, Katarína Fatrcová-Šrámková, Marianna Schwarzová, Simona Kunová, Eva Tvrdá (2021). **Microbiological quality of chicken sous vide meat after salmonella enterica subsp. enterica and pimpinella anisum essential oil.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
2. Radoslava Gabrova, Vladimira Gančovska, Hristina Andreeva, Angel Danev (2021). **Determination of the change in volume and stability of beer foam by digital image processing.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
3. Majlinda Vasjari, Sonila Duka, Alma Shehu, Loreta Vallja, Nevila Broli (2021). **Evaluation of well water used for drinking water in relation to metal content, dietary exposure and impact on the recommended daily amount.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
4. Aleksandra Markovska, Natalija Atanasova-Pancevska (2021). **Comparative analysis of different food safety systems.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
5. Władysław Migdał, Dominika Gubała, Dawid Wotek, Michał Koldras (2021). **Evaluation of the quality and nutritional value of beef cured meats produced from meat of polish native cattle breeds.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
6. Natalija Uršulin-Trstenjak, Lea Lovrek, Melita Sajko, Dean Šalamon (2021). **Citizens opinions on buying and compliance with sanitary rules while buying food products during (the first wave) of the covid-19 pandemic.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
7. Loreta Vallja, Sonila Duka, Alma Shehu, Nevila Broli, Majlinda Vasjari (2021). **Human health risk assessment of nitrate and groundwater evaluation in some selected wells in patos – Marina Region, Albania.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
8. Miroslava Kačániová, Katarína Fatrcová-Šrámková, Marianna Schwarzová, Simona Kunová, Eva Tvrdá (2021). **Impact of carum carvi essential oils to chicken things sous vide meat after listeria monocytogenes application.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.
9. Indrit Loshi, Valon Shala, Arsim Elshani, Astrit Bilalli, Burel Cenaj, Vesna Antoska Knights, Tatjana Blazevska, Marija Menkinoska (2021). **Presence of listeria monocytogenes, escherichia coli and salmonella spp. in processed meat in Kosovo.** *Journal of Hygienic Engineering and Design*, Vol. 37, pp. 25-36.

- Each title is a clickable link that will send you to that specific paper's own page
- To initiate a quick paper search, please use the **Ctrl+f** command in order to generate a search bar

FOOD PRODUCTION AND PROCESSING

1. Nevena Coric, Antonio Tambic, Leonarda Vujevic, Zrinka Knezovic, Anita Juric (2021). **Dietary habits of high school population in Mostar, Bosnia and Herzegovina.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
2. Marianna Schwarzová, Katarína Fatrcová-Šramková, Miroslava Kačániová, Eva Tvrdá, Eftimová Zuzana, Ján Brindza (2021). **Body composition-specific differences in postprandial glycemic response to short-term consumption of wine in healthy young men.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
3. Sonila Duka, Loreta Vallja, Majlinda Vasjari, Alma Shehu, Nevila Broli (2021). **Estimation of gupta index using spatial and temporal variability of nitrite and chlorophyll a in kune – vaini lagoons system.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
4. Milka Stijepić, Radoslav Grujić, Nikolina Malinović (2021). **Effects of goat whey protein concentrate on syneresis of acidophilus milk.** *Journal of Hygienic Engineering and Design, Vol. Vol. 37, pp. 25-36.*
5. Njazi Bytyqi, Fidan Feka, Suzana Aliu, Fidan Qerimi (2021). **Factors influencing consumers' behavior for wine as an important agro-food product in Kosovo.** *Journal of Hygienic Engineering and Design, Vol. Vol. 37, pp. 25-36.*
6. Yuliya Kambulova, Nataliya Overchuk, Ihor Dubkovets'kyi, Olena Kokhan, Vira Yurchak, Yuliya Zvyahintseva-Semenets, Oksana Onofriychuk (2021). **Application of radiation infrared drying method to remove water from fruit gels.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
7. Gharib Kerim Hafizov (2021). **Connective drying of feijoa fruits: pretreatment methods and target.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
8. Farhan Ahmad, Shahida Anusha Siddiqui, Ristina Siti Sundari, Junaid Ahmad, Sayed Minhaj Ali Shah, Muhammad Rabnawaz Khan, Rizky Adi Nugraha Tarigan, Andrey Nagdalian, Mohammad Mehdizadeh, Mohammad Shakir Moazzem, Ahmad Ali, Hafize Fidan, Srinivas Kasulla, Suhail Jaiveer Malik, Andrey Blinov, Mohammad Afaan Fazili, Clement Kiprotich Kiptum, Salam A. Ibrahim (2021). **Assessing integrated nitrogen and planting density on growth, yield component and financial analysis of maize crops (Zea Mays).** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
9. Ristina Siti Sundari, Adnan Arshad, Shahida Anusha Siddiqui, Muhammad Kamran Khan, Yadi Heryadi, Farhan Ahmad, Hasan Fahmi Kusnandar, Rizky Adi Nugraha Tarigan, Andrey Nagdalian*, Andrey Blinov, Mohammad Mehdizadeh, Mohammad Shakir Moazzem, Ahmad Ali, Srinivas Kasulla, Suhail Jaiveer Malik, Clement Kiprotich Kiptum, Salam Ibrahim (2021). **Industrialization fed labor migration in the countryside: tasikmalaya's transition from agriculture to the crispy snacks industry.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
10. Sanja Nashkova, Cena Dimova, Katerina Zlatanovska, Natasha Longurova, Sandra Atanasova, Ljubica Prosheva (2021). **Dental caries and salivary bacteria in school children at age of 12 with present and absent dental caries.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
11. Elena Hošková, Iveta Zentková (2021). **The impact of food consumption on to the self-perceived health.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
12. Zehra Hajrulai-Musliu, Risto Uzunov, Aleksandra Angelevska, Vasilka Popovska – Trenevaska, Mila Arapcheska, Elizabeta Dimitrieska-Stojkovikj (2021). **Determination of milk fat adulteration in sour cream with vegetable oils by gc-fid method.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
13. Dominika Gubała, Władysław Migdał (2021). **The use of dried acerola as a substitute for ascorbic acid in cured meats.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
14. Albena Durakova, Tzvetana Gogova, Stefka Vladeva, Adelina Vasileva, Anton Slavov, Velichka Yanakieva, Milena Temelkova (2021). **Biscuits with flour of lucuma, spelt and carob for**

- Each title is a clickable link that will send you to that specific paper's own page
- To initiate a quick paper search, please use the **Ctrl+f** command in order to generate a search bar

- prophylactic and dietary nutrition.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
15. Natalija Uršulin-Trstenjak, Dijana Maslarda, Bojan Šarkanj, Angela Vasilevska (2021). **Dietary habits of patients with inflammatory bowel disease from the territory of northern Croatia.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 16. Marianna Schwarzová, Katarína Fatrcová-Šramková, Miroslava Kačániová, Eva Tvrďá (2021). **The impact of covid-19 home confinement on selected anthropometric, hematological and biochemical parameters among Slovaks – a preliminary study.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 17. Samir Gharib Hafizov, Gharib Kerim Hafizov (2021). **Increase the color stability of pomegranate juice with color stabilizers.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 18. Irina Polyanskaya, Lidia Stoyanova, Valentina Popova (2021). **Concept of metabiotics in fermented dairy products.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 19. Pompilia Petruta Apostol, Madalina Cristea, Madalina Ivan, Maria Pelin (2021). **Testing the MCM6 13910-C/T and 22018-G/A polymorphisms in samples from three different populations.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 20. Ilija Stijepić, Dragana Sredić Cartes (2021). **Association of body mass index with the functional fitness of women aged over 64 years.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 21. Petya Hristova, Anna Tolekova, Pavlina Teneva, Magdalena Platikanova, Mario Milkov, Reni Kalfin (2021). **Hormonal aspects of sleep regulation.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 22. Katarína Fatrcová-Šramková, Tünde Juríková, Marianna Schwarzová, Marcela Capcarová (2021). **Basal metabolism determined by different methods in selected part of women population.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 23. Ekaterina Tyuhtenkova, Elena Gayko (2021). **Food labelling: peculiarities, international experience and importance of the implementation.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 24. Jasmina Lazarević, Sanja Popović, Tatjana Tasić, Dragana Plavšić, Ivana Čabarkapa, Nedeljka Spasevski (2021). **Effect of pasture and season on the variation of vitamin A, E and C in donkeys' milk during lactation.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*
 25. Katarína Fatrcová-Šramková, Marianna Schwarzová, Natália Sabová, Tünde Juríková, Anna Kalafová (2021). **Stratification of women according to body composition indicator, evaluation of obesity prevalence.** *Journal of Hygienic Engineering and Design, Vol. 37, pp. 25-36.*

- Each title is a clickable link that will send you to that specific paper's own page
- To initiate a quick paper search, please use the **Ctrl+f** command in order to generate a search bar

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/357990539>

INDUSTRIALIZATION FED LABOR MIGRATION IN THE COUNTRYSIDE: TASIKMALAYA'S TRANSITION FROM AGRICULTURE TO THE CRISPY SNACKS INDUSTRY

Article · January 2022

CITATIONS
0

READS
145

17 authors, including:



Ristina Siti Sundari
Universitas Padjadjaran

92 PUBLICATIONS 66 CITATIONS

[SEE PROFILE](#)



Adnan Arshad
China Agricultural University

75 PUBLICATIONS 222 CITATIONS

[SEE PROFILE](#)



Shahida Anusha Siddiqui
Deutsches Institut für Lebensmitteltechnik

50 PUBLICATIONS 301 CITATIONS

[SEE PROFILE](#)



D Yadi - Heryadi
Siliwangi University

13 PUBLICATIONS 6 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Connecting Researchers on the Globe [View project](#)



Food Waste Recovery: Open Innovation Network [View project](#)

INDUSTRIALIZATION FED LABOR MIGRATION IN THE COUNTRYSIDE: TASIKMALAYA'S TRANSITION FROM AGRICULTURE TO THE CRISPY SNACKS INDUSTRY

Ristina Siti Sundari¹, Adnan Arshad², Shahida Anusha Siddiqui^{3,4},
Muhammad Kamran Khan⁵, Yadi Heryadi⁶, Farhan Ahmad⁷, Hasan Fahmi Kusnandar⁸,
Rizky Adi Nugraha Tarigan⁶, Andrey Nagdalian⁹, Andrey Blinov⁹,
Mohammad Mehdizadeh¹⁰, Mohammad Shakir Moazzem¹¹, Ahmad Ali¹²,
Srinivas Kasulla¹³, Suhail Jaiveer Malik¹³, Clement Kiprotich Kiptum¹⁴, Salam Ibrahim^{15*}

¹Department of Agribusiness, Agricultural Faculty,
University Perjuangan, Peta 177, 46115 Tasikmalaya, Indonesia

²College of Resources and Environmental Sciences,
China Agricultural University, Lvyuan W Road nn, 100193 Beijing, P.R. China

³Campus Straubing for Biotechnology and Sustainability,
Technical University of Munich, Essigberg 3, 94315 Straubing, Germany

⁴German Institute of Food Technologies (DIL e.V),
Professor-von-Klitzing 7, 49610 D-Quakenbrück, Germany

⁵Management Studies Department, Bahria business School, Bahria University Islamabad,
Shangrilla Rd nn, E-8/1 E 8/1 E-8, Islamabad, Pakistan

⁶Agribusiness Department, Agricultural Faculty, University of Siliwangi,
Siliwangi 24, 46115 Tasikmalaya, Indonesia

⁷Department of Agronomy, Faculty of Crop Production Sciences,
University of Agriculture Peshawar, Rahat Abad street 7, 25000 Peshawar, Pakistan

⁸Polytechnique Triguna, Ibrahim Adjie 7, Indihiang, Kec. Indihiang,
Tasikmalaya, 46151 Jawa Barat, Indonesia

⁹Food Technology and Engineering Institute, North Caucasus Federal University,
Kulakova 2, 355029 Stavropol, Russia

¹⁰Faculty of Agricultural and Natural Resources, University of Mohaghegh Ardabili,
Daneshgah Street nn, 56199-11367 Ardabil, Iran

¹¹Department of Food Engineering and Tea Technology,
Shahjalal University of Science and Technology, University Avenue nn, 3114 Sylhet, Bangladesh

¹²Department of Life Sciences, University of Mumbai Vidyarnagari, Chatrapati Shivaji Maharaj
Terminus Rd, Kolivery Village, Vidya Nagari, Kalina, Maharashtra,
400098 Santacruz (East) Mumbai, India

¹³EKA Biofuels Private Ltd., Gagan Emerald, Kondhwa 8, Kondhwa, Pune,
411048 Maharashtra, India

¹⁴Department of Civil and Structural Engineering, School of Engineering,
University of Eldoret, Eldoret-Kachibora road nn, 1125-30100 Eldoret, Kenya

¹⁵Food Microbiology and Biotechnology Laboratory, Food and Nutritional Sciences Program,
North Carolina A & T State University, 171 Carver Hall, Greensboro, NC 27411-1064, USA

*e-mail: ibrah001@ncat.edu

Abstract

The low income as a farmer in developing country drives to change the profession and to be a worker

in the Indonesia crispy snacks industry. This research aims to identify and analyze the factors influencing

laborer migration from the agricultural profession to non-agricultural-based industry due to countryside industrialization.

This study used primary data collected with survey data from 69 agricultural workers who migrate to work in the crispy snacks industry at the same village. Multiple linear regression (MLR) model were applied for results analysis. MLR variables consisted of age, level of education, land ownership, income per capita status, mobility, number of the respondent's family, respondent's debt liability, and government policy regarding assistance.

The examined results indicated that all variables simultaneously affected laborer migration, while partially, on each parameter determined the varying results. The level of education and mobility variables had no significant effect on the laborer migration. Laborer migration from the agricultural profession into the crispy snacks industry, particularly among 41 - 50 years with minimal farm debt, accounted for 2 - 3 respondents. Additionally findings of this study indicated that respondents' income per capita increased by transitioning to the crispy snacks industry and income was not based upon previous experience, but the type of work being done. Neither was environmental or social degradation found to be of significant influence on the respondents' perceptions regarding the type of work chosen.

We conclude that the farmer who migrate to be a crispy snacks industry was limited to young age due to meet affordability for life need. Consequently, crispy snacks industry owners should use local raw or agriculture-based materials in productions allowing for dual prosperity in both sectors.

Key words: *Agricultural sector, Decision, Industry, Transition.*

1. Introduction

Indonesia was the 4th highest populous country worldwide in 2020 [1]. The agricultural industry was limited by agricultural holding size, low labor productivity coupled with a high supply of laborers and the lack of organization and standardization of minimum wages amongst laborers in different regions. The new home industry job market was established leading to the creation of new work opportunities, income resources [2], and alternative access to Indonesia's financial circular.

Governmental facilitation of both fiscal and non-fiscal policies was introduced to build the home industry within Indonesia rapidly to leverage

industrial development. Among rising concerns are the ways the agricultural and non-agricultural industries differ in regard to employee relations and management techniques within the field of human resources. An imbalance in employee allocation through outmigration is of primary concern for rural communities and agricultural employers [3]. For countryside location such as Tasikmalaya, 27 per cent of employers were listed as industrial, non-agriculture according to the 2016 financial census record, with the primary employer being the processing industry [4]. Employment rates in the agriculture sector, is due to an ageing population with few younger farmers taking their place [5]. The population that work in agricultural sector in 2019 recently declined to 1.96% in 2020 in Indonesia, whereas in West Java Province declines 3.59% [2].

Home industry consists of one or two households used as a processing center with the families, and potentially neighbours, as the human capital [6]. Establishing industry in rural areas has changed the financial structure of rural communities and allowed for employers to pull agricultural workers into home industry as a consequence of industrialization and modernization [7]. In the case of agricultural household production, the effects on productivity are found to be ambiguous in nature with both positive and negative results between the two industries [8]. This ambiguity is focused around employment options, as the increase in home industry numbers means a decrease in agricultural employment and vice versa. Additionally, the uncertainty of employment duration and salary in home production coupled with the increased commercialization of agricultural production means financial insecurity [4]. Dilemmatic, on one side the home industry resolves rural bond debts while simultaneously shifting agricultural land use and function in rural communities changes the social and economic condition of those same communities. This needs to be observed considering all factors influencing laborer migration in rural communities from the agricultural sector after the establishment of the home industry in those same regions.

The focus of this research is to analyse labor migration occurring only from agriculture to home industry within the same vicinity. This research is different from the work done before since previous research focuses on labor migration occurring from one place to another place. The goal remains the same, to find better income and better standard of living. The point of focus is the transition phase occurrence due to conversion of agricultural land for other purposes, whereas, considering the pace at which the population is growing - the laborers working in food sector need to have a safe source of income, in order to ensure food

security. In addition, we believe that it is important to address transitioning food and industry availability as a consequence of a countryside development which can not be avoided due to industrialization.

2. Materials and Methods

Purposive judgement sampling was chosen due to fast growth of home industry establishment. There occurred agricultural laborer scarcity. They migrated to be home industry laborer. The case study was conducted to home industry laborer that has some added value in income and ability to activate their community's economic circulation [9]. The sampling used Slovin formula as followed:

$$n = \frac{N}{1 + N \cdot e^2}$$

Where n = amount of samples, N = amount of population and e = error of 0.05.

The values have been substituted to calculate the number of samples, as below:

$$n = \frac{69}{1 + 69(0.05)^2} = 58.84 \sim 59 \text{ samples}$$

The sample proportion was 59 respondents who work at home industry in the countryside. The primary data collected by observation, interview, and giving questionnaire to respondents.

2.1. Analysis tools

2.1.1 Classical assumption test

Primary research data was pulled from face-to-face direct interview, a closed questionnaire focusing on respondents' attitude, confidence, behaviour, and characteristics that could be influenced due to system, and field observation [10]. Secondary data was gained from related institutional websites, such as from Agricultural ministry, government authority, statistics bureau website. Data was then entered into a multiple linear regression (MLR) model to analyse the classical assumption test. The initial classical assumption test required that multicollinearity was not allowed to occur. This was performed considering a tolerance value of > 0.01 (or variance inflation factor (VIF) < 10) and also Heteroscedasticity and normality [11, 12, 13, and 14].

2.1.1.1 Coefficient determination test (R^2) and analysis of multiple linear regression

The research tested R^2 to find the model's capacity in explaining variances of the dependent variable [12, 13, and 15], the independent variables being: age,

education, landholder, income level, mobility, family load, debt liability and government policy. The analysis posed more than one independent variable leading to a multiple linear regression model [14] by applying the significant effect of more than two independent variables (listed above as $X_1, X_2, X_3, \dots, X_n$) against the dependent variable Y (laborer migration). The mathematical equation is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + e \quad (1)$$

Where: Y = Laborer migration; β_0 = Constant, $\beta_1, \beta_2, \dots, \beta_8$ = Coefficient regression; X_1 = Age; X_2 = Education; X_3 = Land ownership; X_4 = Income level; X_5 = Mobility; X_6 = Family Load; X_7 = Debt liability; X_8 = Government policy, e = model's of error term.

2.2 Hypothesis test

A hypothesis test using the Analysis of Variance (ANOVA f-test) to know whether the independent variable influenced the dependent variable simultaneously and t-test was performed to find the leading independent variable in reference to labor migration partially. If $f \leq f\text{-sig}$:

$$F = \frac{(n - (K - 1))R^2}{(1 - R)(K)} \quad (2)$$

Where: R^2 = Coefficient determination, K = number of independent variables, n = sample.

The partial influence in the student test is as below:

$$t = \frac{\beta_i}{S_{ei}} (\%) \quad (3)$$

Where: t = t student test for partially influence, β_i = regression coefficient, S_{ei} = Standard error of β_i . We could derive conclusion the variables effect of laborer migration to home industry either simultaneously by F test or partially by t-student test.

3. Results and Discussion

3.1 Heteroskedasticity and normality tests

The scatterplot graphic results (Figure 1) showed that heteroscedasticity did not occur while the normality test used the standard p-plot method and suggested that the dependent and independent variables for the regression model had a normal distribution.

The data points spread along the required diagonal linear line following the direction of the graphic. Therefore, the derived conclusion is that the regression model is eligible to meet normality requirements (Figure 2).

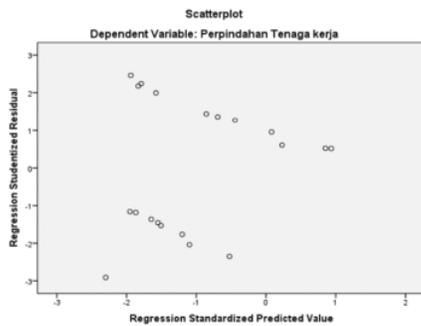


Figure 1. Heteroskedasticity scatter plot

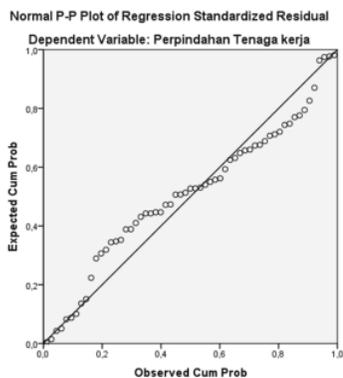


Figure 2. Normality test in healthy P-plot formation

3.2 Coefficient of determination test (R²)

The interval confidentiality (α) is 0.05 as an indicator of significance. Table 1 was known that Sig. Value is 0.000. That value of predictor 0.000 was less than 0.05 (α). According to principal of decision making of F test could be concluded that the hypothesis was accepted. It meant the independent variables of X1, X2, X3, X4, X5, X6, X7, and X8 strongly significant affected laborer migration between sectors simultaneously.

Table 1. F Test (Analysis of Variance a)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	11.399	9	1.425	4.763	0.000 ^b
Residual	14.957	50	0.299		
Total	26.356	59			

Legend: a = dependent variable, b = Predictor: Constant, X1, X2, X3, X4, X5, X6, X7, X8 (processed primary data, 2020).

3.3 Analysis of variance (ANOVA)

The first requirement to use coefficient of determination value was significant F test to predict the contribution of effect of independent variable (X₁, X₂, X₃, X₄, X₅, X₆, X₇, X₈) simultaneously on dependent variable (Y). The coefficient correlation (R) reached 0.746, indicated that the independent and dependent variable of this research was very high while the range was -1 until +1.

The coefficient of determination test (Table 2), explained that coefficient of determination (R²) = 0.556, this signifies that the independent variables had a strength value of 55.6 per cent over the influence and contribution of the dependent variable (laborer migration from the agricultural sector into the home industry). At the same time, 44.4 per cent is the unknown influence of variables which are not considered in the sample observation (out of regression equation) in order to keep the results precise. This is a good contribution of variable Age (X₁), education (X₂), land ownership (X₃), income level (X₄), cosmopolitan (X₅), number of family (X₆), financial condition (X₇), government policy (X₈) on Labor migration.

Table 2. Coefficient of determination (R²)

Model	R	R square	Std. the error of the estimate
1	0.746 ^a	0.556	0.546931

Legend: a = Predictors: Constant, X₁, X₂, X₃, X₄, X₅, X₆, X₇, X₈.

3.4 Multicollinearity, t-test, and multiple linear regression

The result of the t-test showed that the independent variables influenced negatively or positively based upon the dependent variable (Table 3) with the $\alpha = 0.05$.

Table 3. Analysis of multicollinearity, t-test and coefficient regression

Model	Coefficients		t	Sig.	Multicollinearity statistics	
	B	Std. Error			Tolerance	VIP
(Constant)	3.678	0.767	4.794	0.000		
Age	-0.185	0.089	-2.082	0.043	0.733	1.365
Education	0.103	0.092	1.123	0.267	0.820	1.219
Land ownership	0.270	0.126	2.149	0.037	0.606	1.651
Income level	-0.075	0.099	-0.764	0.448	0.794	1.260
Cosmopolitan	0.043	0.094	0.460	0.648	0.882	1.134
Family Load	0.084	0.080	1.053	0.297	0.913	1.095
Financial condition	-0.241	0.092	-2.621	0.012	0.698	1.433
Government policy	-0.087	0.078	-1.106	0.274	0.953	1.050



No allowance of multicollinearity deals within the regression analysis. The measurement showed up to a tolerance value > 0.10 and variable inflation factor (VIF) < 10, hence it is free from multicollinearity. The multiple linear regression equation was comprised as:

$$Y = 3,678 - 0,185X_1 + 0,103X_2 + 0,270 X_3 - 0,075 X_4 + 0,043 X_5 + 0,084 X_6 - 0,241X_7 - 0,087X_8$$

Coefficient β_0 is 3,678 (a constant). This correlates to the combination of age (X_1), education (X_2), land ownership (X_3), income level (X_4), mobility (X_5), family load (X_6), debt liability (X_7), and government policy (X_8) following such a constant (ceteris paribus) would be under effect if the coefficient of β_1 for age is -0.185, which means the older the respondent (X_1) the lower possibility of labor migration (0.185, ceteris paribus). Under coefficient β_2 an educational rate of 0.103 relates to the change of 0.103 units of education increase of one unit of education (X_2). Coefficient β_3 (land ownership: 0.270) meant the lower the rate of land ownership (X_3) the higher the possibility of migration into home industry. Coefficient β_4 for income level is -0.075, meaning (X_4) that income increased by one unit will further decrease labor migration by 0.075 units (ceteris paribus). Coefficient β_5 mobility (0.043) illustrates that when increasing one unit, mobility (X_5) will increase 0.043 (ceteris paribus). Coefficient $\beta_6 = 0.084$ represents that if the people of the family load increases by one unit, the labor migration will increase 0.084 units (ceteris paribus). Coefficient β_7 being -0.241 means if (X_7) debt liability is higher if less labor migration. The coefficient β_8 (Government policy assistance) is -0.087, outlining that the less X_8 (Government policy assistance), the more labor migration rises by 0.087 (ceteris paribus).

Home industry's progress at the test site ran well. Interviews showed an increase in business growth, branch locations, and profitability margins. Governmental policy assistance was required to set-up the trail and create new job markets and opportunities for the rural unemployed, however this limited agricultural labor access for farmers and meant that those laborers chosen were based on preference either from colleagues or experience [15]. Migration between sectors was based upon the individuals' personal goals. The perceived financial security found within the most consistent work structure of home industry where work is consistent and established by the industry versus the seasonal employment options available for farm laborers [16]. High populations increased diversification of employment opportunities and household financial needs as low-income agricultural workers migrated to higher-paid positions in non-agricultural sectors [17, 18].

Combining home industry and the agricultural sector offers more employment opportunities for farmers

and reduces debt liability while allowing for laborers to choose agriculture industry. Hence the combination of both, home industry and the agricultural sector will result in the prevention of outmigration of laborers to urban city centres; growing the rural economy and society. Some respondents said that home industry in rural communities allowed them to work from home during the agricultural off-season when productivity typically halts, limiting their need to leave home to search out alternative employment. There are some concerns that laborers will leave the agricultural sector completely and find work in home industry permanently. The classical reasons for such migration are a low salary, long working hours under sub-optimal conditions, and a general low profitability, especially for non-land owners who can migrate easily. They ignored the social and environmental aspects of the agricultural sector in lieu of higher profitability.

3.5 Age of laborer

Home industry labor was grouped respectively as > 50 years old, 41 - 50 years old, 31 - 40 years old, and 21 - 30 years old (Figure 3).

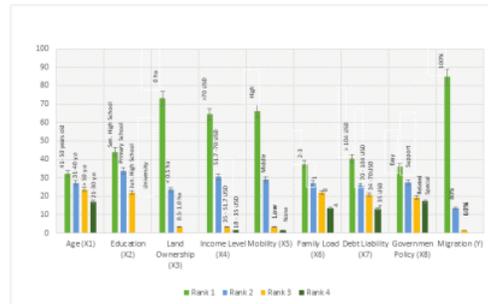


Figure 3. Recapitulation of laborer migration variables. Source: Processed primary data (2020)

The dominant labor migration (from agriculture to home industry) occurred within the 41 - 50 years old (32.2%) group, followed by > 50 years old (23.73%), 31 - 40 years (27.11%) and 21 - 30 years old (16.94%). Age of laborers was directly related to their physical power condition, with older populations choosing to migrate due to limited ability to perform hard, physical labor at the same rate as their younger counterparts which limits their on-farm work opportunities.

However, respondents' age are significant in the left tail as 2.082 compared to sig. 0.043 (Table 3) determining that the age of respondents was in contrast to the influenced labor migration. We can infer that the oldest respondents tend to remain within the agricultural sector, which confirms the 2013 census reports that most farmers are over the age of 55 [19, 36]. Some reasons for the discrepancy could be the responders

returned to the agricultural sphere in retirement or to pursue a more leisurely lifestyle away from the city centres. Age structure was linked to people's financial activity with higher incomes proportional to age and experience [8].

3.6 Status of education and income per capita

Generally, the higher education, the less interest in the agriculture sector. Moreover, higher education is often paired with more extensive job opportunities, access to information and technology, which leads to broader employment opportunities [20, 34, and 35]. The 44.06 percent of home industry laborers completed senior high school educational, 33.89 per cent elementary school, and 22.03 per cent completed junior high school, while none of those surveyed had undergraduate university education (Figure 3).

Education factor influenced laborer migration to the home industry with a t-value of 1.123 (sig. 0.267 right-tailed). The right tail is describing the higher respondent's education level correlated positively to the higher propensity to migrate to the home industry. The image came out to be such, that lazy people worked as farm laborers could be caused by the stigma of agriculture as dirty and having a low salary. This was opposite to some authors who stated that the home industry was easy to get into [19, 31], and Monanisa and Siddiqui and Ahmad who stated that education did not influence income or manage employee performance [21, 32]. Perhaps it would be wiser to conclude that although lower educated, employees are physically capable of working under farm circumstances. Their productivity will increase if given appropriate training skills [33].

Higher paying jobs provide more impetus for employees regardless of education level to change positions as shown in Figure 3, where the perception of higher salaries in the home industry was the primary mitigation factor in labor migration. Respectively, 64.40 per cent of home industry income was > 62.21 euros, followed by 30.50 per cent (28 - 62 €) and 3.38 per cent (< 28 €). Whereas the income of an agricultural sector laborer averages 31.7 (both are per half-day labor). Mixed-industry laborers had the benefit of taking half-day work in both sectors increasing their income.

Income influenced laborer migration into the home industry by a t-value -0.764 on sig. 0.448 (Table 3). Moreover, even though the home industry's income included low salaries when viewed across the national scales, they were still higher than the agricultural salary. If a laborer was financially-oriented, it is assumed they would decide to migrate into the home industry with a higher income potential. This does not

take into account external costs such as food, which could potentially be found in an agricultural setting for a lower cost.

3.7 Direct payment (DP)

From macroeconomic point of view direct payment encourages farmers to continue agricultural jobs and land management. This is done to avoid both, socio economic consequence of land deprivation and migration to richer local areas. However, previous studies show positive impacts on the agriculture job creation and private employment but it has cofirmed negative consequences on public employment [22].

Studies indicated that direct payment contributed to job creation in agriculture, however, the magnitude of economic benefits remained to be moderate. In Germany [23], direct payments had resulted to job depletion while organic farming led to job creation in agriculture. It has been argued that direct payment might not hold reverse rural depopulation, but it supports the creation of job opportunities with high possibilities [24].

3.8 Land ownership

The land area owned by laborers was never found to be more than 1 ha. The survey group was found to fall under one of three categories: > 1 ha (none), 0.5 - 1 ha (13.55 per cent), and no land (83.05 per cent) (Figure 3). Higher rates of migration were found in respondents with little to no land as this limited their ability to perform agricultural work and vice versa, influencing the laborer's employment options [3]. The regression analysis showed that land ownership statistically contributed to labor migration reach $t = 2.149$ with sig. 0.037 (Table 3). Being a laborer in industry appeared to have no difference in perception.

3.9 Mobility distribution

Mobility is the rate of movement for a population to transition from one area to another [25]. Mobility of the labor market between agriculture and home industry, as shown in Figure 1, specified that mobilization reached a height of 66.1 per cent, followed by the middle at 30.5 per cent and the remainder at 3.38 per cent. The mobility was found to relate to the distribution of products across the region predominantly due to marketing and purchasing power and assisted in the rapid growth of the home industry. This is in contrast to the MLR results where mobility reached 0.460 under sig. 0.648. Statistically, mobility did not influence labor migration into the home industry (Table 3). The countryside people frequently moved for a variety of reasons, so high mobility rates were not because of the home industry alone, but a variety of remainder factors. No health insurance was provided to laborers

and while it is known that home-processing can lead to both human and environmental conditions due to pollutants, lack of sanitation and hygiene safety, minimum ventilation, etc, human health and environmental concerns were not considered pressing issues during interviews, but might be a subconscious factor leading to mobility.

3.10 Family load and debt liability

Home industry labor household size's is typically between two to three family members and occurs roughly 37.59 per cent more frequently than agricultural workers (Figure 3). Family load is proportional to expenditures such as food, clothing, rent, and education costs, with more children equating to higher output costs. Expenditures were almost impossible for agricultural workers to meet without additional financial assistance. Statistically, the number in the family gave a t-value of $t = 1.053$ from sig. 0.297 (Table 3). It indicated that the number in family influenced labor migration from the agricultural sector into the home industry and that the household liability is proportional to income as a prosperity level [26, 27].

Debt liability refers to a laborer's loans and bills. Figure 3 shows that 37.28 per cent is the highest debt liability score. It means that the debt liability of the respondent was greater than their ability to pay back their credit, loans, and bills beyond their ability to fulfil their basic expenditures for general survival. The high level of debt liabilities were the primary reasons given for migration to the higher waged home industry. The second score was 23.72 per cent followed by 18.64 per cent, 11.86 per cent, and 8.47 per cent. The laborer who was able to migrate to the home industry without a credit burden was only 8.47 per cent.

The debt liability's influence on laborer migration provided a left tailed 2.261 compared to sig. 0.012 (Table 3) signifying that the debt liability made the laborer keep their job as a farmer or take on a dual job in both the agricultural and home industry sectors. This is in contrast to Farhani, [37], who stated that debt liability was a driving factor in farmer migration to the home industry with the goal of improving their income to fulfil their family needs. The research found that the higher the debt liability the less the transition to the home industry seemed to mitigate those debts, potentially due to the increased costs associated with such a migration (credit, bills, tuition, loans, etc.).

3.11 Cultural and social capital

Social capital basically defined as interaction of networks of relationships, norms of reciprocity and trust. In rural area networking, these aspects play an important role due to the small size of the community.

It is also a way to enable farmers build trust to share their experience, acquire knowledge and develop idea to solve problems. Local cultures in rural areas are strong, bring people to create businesses, support projects and establish local markets while it has potentials to create shock against globalization and modernization. Bult and Adekunle found that structural social capitals beyond the village hugely contribute to adoption of innovations in agriculture by means of networking and cultural potentials [28].

3.12 Government policy assistance

In the case of home industry progress and sustainability was supported by government policies. The goal was to increase the opportunities for home industry expansion and promotion. While 33.89 per cent of responders received some form of assistance as per government initiatives, the t-value of 1.1.06 (left tailed sig. 0.274) showed that government policy should not migrate laborers to the home industry and that it was more important for a good relationship between the sectors than promoting one sector over another.

3.13 Progress

Laborer migration percentages were found to range from 60 - 100%. Figure 1 indicated that 84.74 per cent of sampled laborers migrated entirely into the home industry. Whereas 13.55 per cent were still working in the agricultural sector and 1.59 per cent were working in both sectors simultaneously (Figure 3). Simultaneous employment (plural-activity) was found in higher ratios among part-time agricultural laborers [29, 30]. The higher statistics of elderly individuals (> 64) were engaged in household agricultural production and had maximum possibilities of choosing family farming.

Laborer migration from the agricultural sector into the home industry, particularly within the 41 – 50 years old demographic (no land, minimum debt, and 2-3 members of their household) had the highest rate of return from job transfer to the home industry. Likewise, it was found that the higher the ratio of migrant labor income was to total household income and/or the higher the ration between labor populations in a region, the higher the possibility that farmers would choose land transfer or land abandonment [29, 30].

By interview, there were thirty-one home industries accommodating 732 rural laborers in the study. Of those 732 laborers, 663 laborers (90 per cent) worked in both agricultural and home industry sectors to increase their household income by splitting the day, morning - afternoon at the farm then afternoon - evening at the home industry. This is due to the flexibility offered by home industry employment. While the predominant age group employed only within the agricultural sector

was +55 years old, 9 percent had migrated entirely into the home industry, opposite to what is found within urban centres [2, 38].

4. Conclusions

- The home industry in Tasikmalaya has had good progress due to entrepreneurship trends, increasing people's income. However, the complete transition to home industry is still less than 9 percent of the agricultural sector, yet seems to be growing at a fast rate. The existence of the home industry in Tasikmalaya is predominantly inclined to help laborers increase income due to dual employment opportunities and is dependent on the flexible work schedule found in the home industry. The increased income allows the debt liability of the laborer to be paid off and improve their living conditions but at the potential cost of both human and environmental health over the long-term. - Hence bringing this research to its ultimate conclusion, that is, home industry owners should use local raw or agriculture-based materials in productions allowing for dual prosperity in both sectors. The importance of the agricultural sector can be demonstrated in three ways: It provides food to consumers, and fibres and other raw materials for domestic industry. Millions of people moved during the Industrial Revolution. Some simply moved from a village to a town in the hope of finding work whilst others moved from one country to another in search of a better way of life. Poor working conditions, housing and sanitation led to many people opting to emigrate. It is a source of foreign exchange earnings. It provides a market for industrial goods and more opportunities for labor to earn. Life for poor people, which meant most people, was pretty miserable before the Industrial Revolution. Life expectancy was low, diets were poor and disease was rampant. Movement into the towns and factories spurred by the Industrial Revolution was a step up for the overwhelming majority.

Acknowledgement

Salam A. Ibrahim would like to acknowledge the support of the Agricultural Research Station at North Carolina Agricultural and Technical State University (Greensboro, NC 27411, USA). This research was funded, in part, by grants (project number NC.X337-5-21-170-1 and NC.X341-5-21-170-1) from the National Institute of Food and Agriculture (NIFA). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NIFA.

5. References

- [1] Samuel N. (2016). *Research Support and Open Access: Notes from Nigeria*. African J. Libr. Arch. Inf. Sci., 26, pp. 17-29.
- [2] Zenda R. H., Suparno. (2017). *The role of the industrial sector towards labor absorption in the city of Surabaya* (in Indonesian). J. Econ. and Business, 2, (1), pp. 371-384.
- [3] Akbar F., Gunawan E. (2018). *Factors Influencing Laborer Migration from Agricultural to Non Agricultural Sector in Aceh Besar Regency* (in Indonesian). JIM Ekon. Pambang, 3, (2), pp. 233-239.
- [4] BPS Tasikmalaya Regency. (2019). *Tasikmlaya Regency in Figures 2019* (in Indonesian). <URL:https://www.ceicdata.com/en/indonesia/population-projection-midyear-west-java-by-regency-and-municipality-central-bureau-of-statistics/bps-projection-population-midyear-west-java-tasikmalaya-regency. Accessed 10 January 2020.
- [5] Indonesian Ministry of Industry. (2016). *National Industrial Policy 2015-2019*. Indonesian Ministry of Industry Ministry of Industry, pp 1-364.
- [6] Avisha F. U. (2015). *Home Industry Business Prospects for Winda Snack in Marpoyan Damai District, Pekanbaru City According to Islamic Economics* (in Indonesian). <URL:http://Repository.Uin-Suska.Ac.Id/Id/Eprint/6862. Accessed 21 November 2020.
- [7] Putri A. D., Setiawina N. D. (2013). *The Effect of Age, Education, Job on Poor Household Income in Bebandem Village* (in Indonesian). Ekon. Pambang., 2, (4), pp. 173-180.
- [8] Sundari R. S., Umbara D. S. (2019). *Consumer preferences for share fish agroindustry products* (in Indonesian). Mebis, 4, (1), pp. 36-43.
- [9] [9]GoundarS.(2012).*Chapter3:ResearchMethodologyand Research Method*.In: GoundarS. (Ed.), Cloud Computing. <URL:https://www.researchgate.net/publication/333015026_Chapter_3_-_Research_Methodology_and_Research_Method. Accessed 19th December 2019.
- [10] Candiasa I. M. (2004). *Item Analysis Accompanied Applications With SPSS* (in Indonesian). IKIP Negeri Singaraja, Bali, Indonesia, pp. 1-38.
- [11] Rosmaini, E. (2016). *Learn Data Processing with SPSS, MINITAB, R, MICROSOFT EXCEL, EIEWS, LISREL, AMOS, and SMARTPLS* (in Indonesian). USU Press, Medan, Indonesia.
- [12] Schumacher F. E. (2008). *Statistical Data Analysis with R* (in Indonesian). Suhartono, Lab. Statistik Komputasi ITS, Surabaya, Indonesia.
- [13] Mona M. G., Kekenusa J. S., Prang J. D. (2015). *Multiple Linear Regression Usage to Analyze Coconut Farmer Income. Case Study at Beo Village, District Talaud*. d'Cartesian J. Mat. dan Apl., 4, (2), pp. 196-203.
- [14] Sundari R. S., Umbara D. S., Fitriadi B. W., Sulaeman M. (2019). *Consumer Preference on Catfishes (Patin and Lele) Sweetmeat Product*. J. Physic Conf. Series, No. 1179. <URL:https://doi.org/10.1088/1742-6596/1179/1/012166. Accessed 17 December 2020.
- [15] Sari M. P., Arjawa I. S., Kamajaya G. (2017). *The shift of youth employment from agriculture to industrial sector* (in Indonesian). Scientific journal of sociology, 1, (1), pp. 1-13.
- [16] Siddiqui S., Sampath S. S., M.C.P.S. (2016). *Determination of Endurance limit and stresses in grooved mild steel*. Proceedings of the 9th International Conference on Latest Trends in Engineering and Technology (ICLTET'2016), Abu Dhabi, UAE, pp. 10-15.

- [17] Sampath S. S., M C. P. S., Shetty S. (2015). *Determination of power in hydroelectric plant driven by hydram: A perpetual motion machine type 1*. International Journal of Multidisciplinary Research and Modern Education, 1, (1), pp. 115-122.
- [18] Susilowati S.H. (2016). *The Phenomenon of Aging Farmers And The Decline Of Young Labor And Its Implications For Agricultural Development Policies* (in Indonesian). Forum Penelit. Agro Ekon., 34, (1), pp. 35-55.
- [19] Cahyani R. M. (2019). The Influence of Socioecological Factors on Arabica Coffee Production Results in Rancabali District, Bandung Regency (in Indonesian). Siliwangi University, Tasikmalaya, Indonesia.
- [20] Monanisa M. (2017). Phenomenon of Laborers Migration and It's Rule in Regional Development of South OKU (in Indonesian). J. Swarnabhumi, 2, (1), pp. 59-65.
- [21] Blomquist J. (2014). *Do the CAP Subsidies Increase Employment in Sweden? Estimating the Open Economy Relative Multiplier Using an Exogenous Change in the CAP*. EAEE Congress 'Agri-Food and Rural Innovations for Healthier Societies', Ljubljana, Slovenia. <URL:https://www.agrifood.se/Files/AgriFood_WP20143.pdf. Accessed 23 May 2021.
- [22] Petrick M., Zier P. (2011). *Regional Employment Impacts of Common Agricultural Policy Measures in Eastern Germany: A Difference-in-Differences Approach*. Agric. Econ., 42, (2), pp. 183-193. <URL:https://doi.org/10.1111/j.1574-0862.2010.00509.x. Accessed 23 May 2021.
- [23] OIR, OAR. (2012). *Synthesis of Mid-Term Evaluations of Rural Development Programmes 2007-2013*. <URL:http://www.ccri.ac.uk/synthesismidtermvalrd-2007-2013/. Accessed 23 May 2021.
- [24] Noragawati L. (2002). *Factors Causing the Shift of Manpower from the Agricultural Sector to the Non-Agricultural Sector in the Telukpinang Village Community, Ciawi District, Bogor Regency* (in Indonesian). PD thesis, IPB (Bogor Agricultural University), Bogor, Indonesia.
- [25] Purwanto, A., Taftazani B. M. (2018). The Influence of Family Liability on Economic Prosperity of K3I Worker in University Padjadjaran. *Pekerj. Sos.*, 1, (2), pp. 33-43.
- [26] Farhani A. (2009). *Socio-Economic Motivation of Farmers Changing Jobs from the Agricultural Sector to Furniture Industry in Serenan Village, Juwiring Klaten District* (in Indonesian). Surakarta State University, Klaten, Indonesia.
- [27] van Rijn C. F., Bulte H. E., Adekunle A. (2016). *Social Capital and Agricultural Innovation in Sub-Saharan Africa*. *Agricultural Systems*, 108, pp. 112-122.
- [28] Xu D., Deng X., Guo S., Liu S. (2019). *Labor Migration and Farmland Abandonment in Rural China: Empirical Results and Policy Implications*. *J. Environ. Manage.*, 232, pp. 738-750.
- [29] Barybina L. I., Oboturova N. P., Datsko V. A., Nagdalian A. A., Kopchekchi M. E., Ozheredova N. A., Verevkina M. N., Simonov A. N. (2019). *Hamburger patty development with alginate-pectin meat emulsion*. *Journal of Hygienic Engineering and Design*, 29, pp. 111-118.
- [30] Cheboi P. K., Siddiqui S. A., Onyando J., Kiptum C. K., Heinz V. (2021). *Effect of Ploughing Techniques on Water Use and Yield of Rice in Maugo Small-Holder Irrigation Scheme, Kenya*. *AgriEngineering*, 3, (1), pp. 110-117.
- [31] Nagdalian A. A., Rzhepakovsky I. V., Siddiqui S. A., Piskov S. I., Oboturova N. P., Timchenko L. D., Lodygin A. D., Blinov A. V., Ibrahim S. A. (2021). *Analysis of the Content of Mechanically Separated Poultry Meat in Sausage Using Computing Microtomography*. *J. Food Compos. Anal.*, 100, 103918. <URL:https://doi.org/https://doi.org/10.1016/j.jfca.2021.103918. Accessed 23 May 2021.
- [32] Siddiqui S. A., Ahmad A. (2021). *Dynamic Analysis of an Observation Tower Subjected to Wind Loads Using ANSYS*. Proceedings of the 2nd International Conference on Computation, Automation and Knowledge Management, (ICCAKM), Dubai, UAE, pp. 6-11.
- [33] Salins S. S., Siddiqui S. A., Redd S. V. K., Kumar S. (2020). *Parametric Analysis for Varying Packing Materials and Water Temperatures in a Humidifier*. *Int. Conf. Fluid Flow, Heat Mass Transf.* <URL:https://doi.org/10.11159/ffhmt20.196. Accessed 25 March 2021.
- [34] Siddiqui S. A., and Ahmad A. (2020). *Implementation of Thin-Walled Approximation to Evaluate Properties of Complex Steel Sections Using C++*. *SN Computer Science*, 1, (6), pp. 342.
- [35] Siddiqui S. A., Ahmad A. (2020). *Implementation of Newton's Algorithm Using FORTRAN*. *SN Comput. Sci.*, 1, (6), pp. 348.
- [36] Suranjan Salins S., Anusha Siddiqui S., Reddy S. V. K., Kumar S. (2021). *Experimental Investigation on the Performance Parameters of a Helical Coil Dehumidifier Test Rig*. *Energy Sources, Part A Recover. Util. Environ. Eff.*, 43, (1), pp. 35-53.
- [37] Farhani A. (2009). *Socio-Economic Motivation of Farmers Switching Jobs from the Agricultural Sector to the Furniture Handicraft Industry Sector in Serenan Village, Juwiring District, Klaten Regency* (in Indonesian). Thesis, University Sebelas Maret, Surakarta, Indonesia. <URL:https://eprints.uns.ac.id/id/eprint/5233. Accessed 19 November 2019.

INDUSTRIALIZATION FED LABOR MIGRATION IN THE COUNTRYSIDE TASIKMALAYA'S TRANSITION FROM AGRICULTURE TO THE CRISPY SNACKS INDUSTRY

ORIGINALITY REPORT

18%

SIMILARITY INDEX

17%

INTERNET SOURCES

9%

PUBLICATIONS

6%

STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

1%

★ aspace.agrif.bg.ac.rs

Internet Source

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off