

Dufhues, Thomas; Möllers, Judith; Traikova, Diana; Buchenrieder, Gertrud;  
Runschke, David

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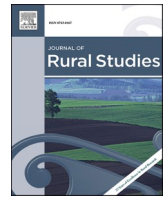
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# “Why villagers stay put – A structural equation model on staying intentions”

Thomas Dufhues<sup>a,\*</sup>, Judith Möllers<sup>a</sup>, Diana Traikova<sup>a</sup>, Gertrud Buchenrieder<sup>a,b</sup>, David Runschke<sup>a</sup>

<sup>a</sup> Leibniz Institute of Agricultural Development in Transition Economies (IAMO), 06120, Halle (Saale), Germany

<sup>b</sup> Universität der Bundeswehr München (UniBw M), Institute of Sociology and Economics, Research Center RISK 85577 Neubiberg, Germany

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## ABSTRACT

While the rural exodus dominates public and scientific debates, considerably less attention has been given to studying why the overwhelming majority of people worldwide remain immobile. As a consequence of this, the reasons why people stay, especially in economically weaker rural areas, are still not fully understood. This paper aims to contribute to closing this gap by addressing the question of why rural people stay put despite inter-regional welfare. Based on the Theory of Planned Behaviour (TPB) we model staying intentions of villagers in rural Kazakhstan, where many people leave toward urban areas. Our model focuses on staying behaviour, but explicitly includes the leave option as the alternative to staying, as well as both staying and leaving barriers. We apply a cutting edge partial least square structural equation model. Our study reveals the existence of an interaction between staying and leaving barriers. Thus, any policies reducing rural-urban migration barriers have a multiplier effect as people view staying as comparatively more difficult when leaving becomes easier. We further show that existing positive narratives of urban life weaken staying intentions. However, the strongest factor slowing rural exodus is not related to the rural economy, but to the future prospects of children, including access to high-quality educational institutions in close proximity.

## 1. Introduction

The mobility of people is at the centre of migration research. Yet, around 98% of people worldwide remain immobile (within country borders) despite perceiving welfare gaps between their home locality and potential migration destinations (Fischer et al., 1997: 88; UN, 2013: 1).<sup>1</sup> This would imply the need for a theory of non-migration rather than a theory of migration (Czaika, 2015: 5), because the usefulness of existing migration approaches is “dimmed by their inability to explain why so few people move” (Arango, 2000: 293). Thus, scholars such as Massey et al. (1993: 456) or, more recently, Williams and Balaz (2012: 177) call to move beyond predicting who will migrate to instead answer why only some individuals migrate while others with the same socio-demographic and economic characteristics do not. In the words of de Jong and Fawcett (1981: 43), “Why do people not move?”. Nevertheless, current mainstream migration research still focuses on migrants

rather than stayers (Koikkalainen and Kyle, 2016: 760). The few articles that investigate staying have largely adopted a migration perspective (Stockdale and Haartsen, 2018: 1). Schewel (2015: 4) calls this an analytical and methodological ‘mobility bias’. Overcoming this bias and focusing on the staying population offers the opportunity to gain new insights into the dynamics behind the broader social change and structural transformation, particularly in rural out-migration regions (Toyota et al., 2007: 158). After all, it is the people who stay who are important for rural development and the sustainability of rural communities (Stockdale and Haartsen, 2018: 1).

The population of stayers, who are at the same time potential migrants, is our target group and main research unit. We investigate staying intentions by applying the Theory of Planned Behaviour (TPB) with its cognitive constructs – norms, attitudes and perceived behavioural controls (PBC) – to investigate factors influencing the decision-making process with regard to immobility (staying). The TPB by Ajzen

\* Corresponding author. Leibniz-Institut für Agrarentwicklung in Transformationsökonomien (IAMO), Theodor-Lieser-Str.2, 06120, Halle (Saale), Germany, E-mail addresses: [dufhues@yahoo.de](mailto:dufhues@yahoo.de) (T. Dufhues), [moellers@iamo.de](mailto:moellers@iamo.de) (J. Möllers), [traikova@gmail.com](mailto:traikova@gmail.com) (D. Traikova), [buchenrieder@yahoo.de](mailto:buchenrieder@yahoo.de) (G. Buchenrieder), [david.runschke@gmail.com](mailto:david.runschke@gmail.com) (D. Runschke).

<sup>1</sup> The number of people who remain in close proximity to their birthplace is surely lower. Keeping in mind that this figure is notoriously hard to estimate, global estimates range between 80 and 90% for most countries (Bell and Charles-Edwards, 2013: 24; IOM, 2020: 19).

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(1985) is an extensively used and validated approach to evaluate how intentions and behaviour are formed. It has emerged as the dominant theoretical framework in attitude-behaviour research (Olson and Zanna, 1993: 131) and is widely applied in contemporary social science fields, see e.g. Fishbein and Ajzen (2011: XVII). Following the TPB, our main assumption is that attitudes, subjective norms, and perceived constraints and opportunities (PBC) related to staying, play an important role in predicting staying intentions. At the same time, we acknowledge that staying and moving are inseparable, and hence staying intentions do not form independently of considerations related to leaving. Thus, our intention variable reflects the fact that staying is always to be seen in relation to leaving. We further hypothesise that, in particular, the perception of significant barriers or facilitators to staying is also influenced by perceived behavioural control over leaving: if people face many leaving barriers, this will strengthen their perception that staying is the easier choice. Similarly, attitudes and norms are formed around beliefs that reflect both behavioural options: staying and leaving. The staying intentions are analysed by applying a cutting-edge partial least squares (PLS) structural equation model (SEM) to a sample of rural stayers. Rural stayers are not a homogenous group. Therefore, we apply a multi-group analysis to reveal the effects of the cognitive constructs on the staying intentions of different subgroups, based on ethnicity, age, or income (Hair et al., 2017: 42).

The drivers of staying will be exemplified using Kazakhstan as a case study. Kazakhstan is the economic motor in Central Asia and displays interesting internal migration dynamics. Astana was declared the new capital of Kazakhstan in 1997 and, since then, the city has grown from a medium sized regional town into a national political and intellectual centre. Today Astana, as one of the two modern cities in Kazakhstan (next to Almaty), functions as a migration magnet. The highest share of incoming intra-national migrants originates from the surrounding, mostly agrarian rural province of Akmola, where we carried out our survey.

The next section reviews the literature on staying. In the subsequent section we discuss the theoretical framework and the methodological approach. Section four presents the results. The final section summarises the findings and discusses their policy implications.

## 2. Literature review

In neoclassical models of migration, and in the social sciences in general, migrating or staying are simply flip sides of the same coin. In this context, immobility tends to be ignored as it is viewed as the normal state, which needs no explanation (Erickson et al., 2018: 2; Hanson, 2005: 15301; Sheller and Urry, 2006: 208). However, other researchers point out that factors anchoring people to places are markedly different from those prompting relocation. Non-migrants and migrants can be seen as diverse subpopulations. And those who stay may not engage in migration, even when a purely economic rationality could warrant it (Irwin et al., 2004: 570; Irwin et al., 1999: 2224). Thus, staying is itself a complex and proactive decision, and immobility should be viewed as a self-contained concept rather than simply as the absence of mobility (Erickson et al., 2018: 2, 11; Hanson, 2005: 15301). Although staying, as the default option, may not require cognisant decision-making, researchers such as Hjälms (2014: 569), Mata-Codesal (2015: 2275), Stockdale et al. (2018: 1), Erickson et al. (2018: 1), or Aharon-Gutman and Cohen (2019: 18–19) argue that stayers possess agency, and choices to stay must be deliberate. However, when agency enters the discussion on non-migration, it is viewed as constrained, e.g. by poverty. Thus, past research has often labelled stayers (especially in rural areas) as those ‘left behind’, ‘stuck behind’, or ‘marginalized’. The existing negative connotation of the term implies a passive victimhood that denies agency. In reality, many stayers actively choose to stay put (Jonsson, 2011: 6; Stockdale and Haartsen, 2018: 2), they come from a variety of backgrounds, and they are not necessarily poor (Thao, 2013: 97–100). Hence, we follow scholars such as Mondain and Diagne (2013: 504) who

purposely avoid this negative view on stayers.

Since the literature on factors that influence immobility is less abundant (compared to literature on mobility), and staying and leaving decisions are seen as interwoven, we review factors identified in the literature as impeding migration (as they may explain staying). Carling (2002: 9) summarises migration constraints and identifies factors such as a lack of development (e.g., people are constrained by poverty), cumulative immobility (the more people decide to stay, the more others follow suit), as well as discrimination against migrants and migration control policies at destinations. McKenzie and Yang (2012: 264) add to this by emphasising the importance of information constraints with regard to wages, job conditions, or job-seeking procedures. The decision to stay is influenced by, for example, strong social bonds at the place of origin (Alesina and Giuliano, 2010: 93; Dawkins, 2006: 867; Ritchey, 1976: 389),<sup>2</sup> certain personality traits (Carling, 2002: 13; van Dalen and Henkens, 2012: 42), location-specific assets and entitlements, including a high social status, which would be lost or weakened in case of migration (Fischer et al., 1997: 75; Uhlenberg, 1973: 309), and local institutional civic structures (Irwin et al., 1999: 2234). Immobility may help to maintain the necessary social safety nets needed to handle a low-pay and insecure work environment (Preece, 1783, 2017). Melander et al. (2011: 5) furthermore stress that stayers are more likely to be influenced by non-economic factors and that these factors might be more diverse than for migrants. One person’s decision to stay may also be linked to another’s decision migrate, e.g. someone has to go and send remittances and/or someone has to stay behind to take care of elderly family members (McDowell and De Haan, 1997: 8). Hence, staying is the result of a complex interplay between competing economic and non-economic factors, such as family, obligations, sentimentality, familiarity, landscape, and community (Morse and Mudgett, 2018: 261; Stockdale et al., 2018: 8).

## 3. Theory, methods and data

### 3.1. Theoretical background: Theory of Planned Behaviour (TPB)

The TPB has its origins in social psychology. It is designed to explain any conscious behaviour and has been successfully applied in many fields (Armitage and Conner, 2001). In migration research, TPB applications have appeared only in recent years (de Jong, 2000; Hoppe and Fujishiro, 2015; Kaplan et al., 2016; Meyer, 2012; Möllers et al., 2015; Traikova et al., 2018; van Dalen and Henkens, 2012). Nevertheless, as pointed out by Kley (2011: 471–472) when measuring moving/staying intentions, the TPB is a promising and well-suited tool.

The TPB explains a given (conscious) behaviour based on three core cognitive constructs: attitudes, norms, and PBCs, which are all formed by beliefs. Applied to our research field, these are the attitudes towards staying (if positive outcomes are expected, positive attitudes towards staying are developed), the perceived norms (which describe the pressure that important peers exert on a person’s decision to stay in the village), and the perceived control over staying in the village. The PBCs describe a set of relevant barriers and facilitating factors as perceived by the villager.<sup>3</sup> It is assumed that these three constructs shape the intention (defined as antecedents of the actual behaviour) and lastly, the staying behaviour (see Fig. 1).

<sup>2</sup> Social attachment to a certain place (the desire to stay close to family and friends), in particular, induces a ‘home bias’ (Buenstorf et al., 2016: 32; Dahl and Sorenson, 2010: 633).

<sup>3</sup> As explained in the introduction, in the operationalisation of the TPB for staying intentions, we acknowledge that staying and leaving are usually considered together. Thus, when someone thinks about the advantages and disadvantages of staying, the leave option is implicitly or explicitly considered as well. We therefore assume that both beliefs related to staying as well as beliefs linked to leaving influence the staying intention.

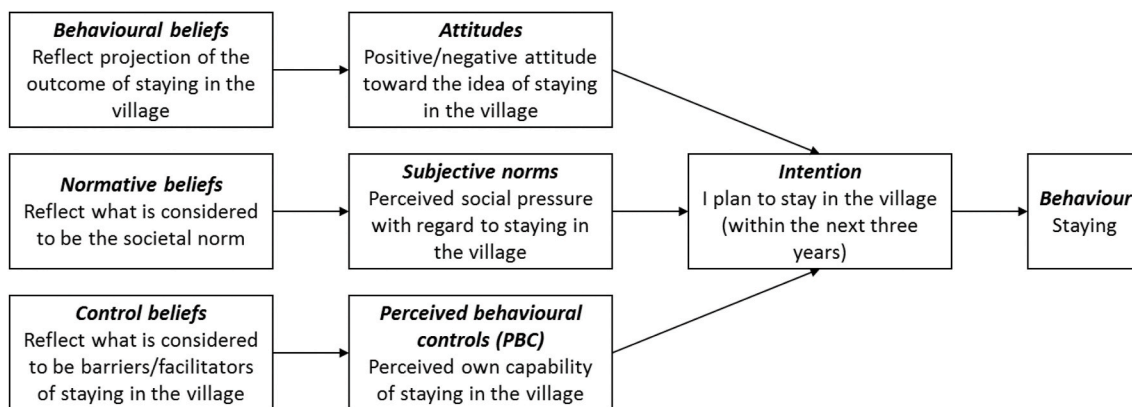


Fig. 1. The Theory of Planned Behaviour applied to staying behaviour.

Because measuring behaviour as a result of cognitive constructs demands panel data, many studies focus on the intention. This is justified because intentions are good predictors of staying or migration behaviour and the use of intentions to proxy actual behaviour is theoretically and methodologically well accepted (de Jong, 2000: 317; van Dalen et al., 2005: 776).<sup>4</sup>

### 3.2. Structural equation modelling

#### 3.2.1. The partial least square model (PLS)

We are interested in gaining a deeper understanding of whether and why villagers are willing to stay where they are. The formation of the intention to stay as well as the factors shaping individuals' behavioural intentions is analysed with the help of a structural equation model (SEM). A SEM is very well-suited to statistically analyse the relationships of the TPB's behavioural constructs since it allows for unobservable (latent) variables to be dealt with. We apply a variance based partial least squares PLS-SEM. This non-parametric approach is suitable for complex modelling constellations with multiple variables. A PLS-SEM maximises the explained variance of the dependent variable(s) by conducting sequential estimations of a number of fixed equations. Thus, it deals with only one part of the whole model network at a time, making it a more efficient approach in terms of sample size (Hair et al., 2017: 24). It is also well-suited to data that are not multivariate normally distributed, as in our case, since most people do not have an intention to migrate (Bliemel et al., 2005: 162; Hair et al., 2017: 28).

A PLS-SEM consists of a structural and a measurement model (Hair et al., 2017: 12). The structural model depicts the paths between the different constructs (see Fig. 3) and the measurement model presents the TPB's behavioural constructs (see Fig. 1.). The dependent intention construct is a hybrid; with leaving intentions for low values and staying intentions for high values. Thus the model focuses on staying behaviour, but explicitly includes the leave option on the low end of the scale as the alternative to staying. Similarly, the TPB constructs refer to both stay and leave related beliefs (whereby all indicators are coded so that they are expected to support the stay decision with higher values). In contrast to attitudes and norms, the PBC construct is a simple single item construct (one reflective indicator). Two separate constructs of barriers to staying and leaving feed into the PBC construct. This set-up furthermore allows us to test for mediation effects, as we hypothesise that the feeling of control over the decision to stay (PBC) is influenced by both

sets of perceived barriers. This means that not only direct effects exist, but that, as they are simultaneously considered, staying and leaving barriers influence each other. In other words, perceived barriers of staying are not assessed independently of the perception of leaving barriers and thus indirect (mediation) effects may be important.

The latent variables, such as attitudes or norms, are represented with the help of directly measurable questionnaire items known as indicators.<sup>5</sup> There are two types of measurement models: formative models and reflective models. In the reflective model, the construct causes the indicators (the indicators reflect it), while in the formative one the indicators cause (form) the construct. The same construct can be operationalised in either way. In our model, mainly formatively measured constructs are used, because our study has an explorative character (Chin, 1998: 303, 308; Coltman et al., 2008: 1250, 1252), and we are particularly interested in understanding which beliefs have a significant (formative) influence on our constructs. Formative indicators are best estimated using a PLS-SEM.

We apply a multi-group analysis to test for changes between models of subgroups in our sample and reveal statistically significant differences among the path coefficients of these models (Hair et al., 2017: 42, 242, 276).<sup>6</sup> Relevant subgroups are created based on ethnicity, age and income. In northern Kazakhstan, ethnic Russians still account for a considerable portion of the population. Thus, cultural differences may be an issue (Buchenrieder et al., 2020). Moreover, as shown in e.g. Erickson et al. (2018: 10), older people are for various reasons far less mobile than younger people. Especially younger persons in search of higher education or better job opportunities are often forced to leave rural areas (Aharon-Gutman and Cohen, 2019: 16). Finally, on the one hand, insufficient financial means are often quoted as one of the major migration constraints and, on the other hand, the wealthier part of the population, who is not faced with factors pushing them out, is often less inclined to leave.

As pointed out by Hult et al. (2008: 1027), failure to establish data equivalence is a potential source of measurement error and may distort

<sup>5</sup> The TPB uses psychometric scaling techniques. Thus, researchers gain quantitative measures of non-economic factors that contribute to the development of intentions (Burton, 2004: 360).

<sup>6</sup> Group comparisons with more than two groups (e.g., in the case of relative income: below average, average and above average) are conducted by pairwise comparisons and we apply the Bonferroni correction to deal with the multiple testing issue (Hair et al., 2018: 158).

<sup>4</sup> Divergence between behaviour and stated intention is assumed to be caused by further information obtained by the respondent after the intentions have been revealed (Dustmann and Okatenko, 2014: 53; Manski, 1990: 935). However, the use of intention data as a proxy for actual behaviour is not untested, see, e.g., Manski (1990: 934) for a critical evaluation.

**Table 1**  
Operationalisation of indicators.

Indicators	Description	7-point Likert scale
<i>Intention staying</i>		
I1_assess	When you think of the next 3 years, do you see yourself staying or leaving?	1 = Leaving for sure - 7 = Staying for sure
I2_likelihood	How likely is it that you will stay in this village or leave for somewhere else within the next 3 years?	1 = Leaving for sure - 7 = Staying for sure
I3_plan	If everything goes according to your plans, where will you be in 3 years?	1 = Leaving for sure - 7 = Staying for sure
I4_control	If you had full control over your situation, would you rather stay in or leave your home village within the next 3 years?	1 = Leaving for sure - 7 = Staying for sure
I5_effort	Will you make an effort to stay in or leave this village within the next 3 years?	1 = Make a strong effort to leave - 7 = Make a strong effort to stay
<i>Attitude staying</i>		
A1_rural_way	I enjoy the rural way of life.	1 = Fully disagree- 7 = Fully agree
A2_family	Staying is important, because it means staying close to family.	1 = Fully disagree- 7 = Fully agree
A3_reputation	Compared to the city, in the village I have a reputation.	1 = Fully disagree- 7 = Fully agree
A4_carreer_city	If I move, my career prospects will improve.	1 = Fully agree - 7 = Fully disagree
A5_life_city	If I move, I will enjoy the city lifestyle very much.	1 = Fully agree - 7 = Fully disagree
A6_culture_village	There is no social/cultural life in the village.	1 = Fully agree - 7 = Fully disagree
A7_future_child	I see a better future for my children/family in the city.	1 = Fully agree - 7 = Fully disagree
<i>Norm staying</i>		
N1_supp/opp_leave	Most people who are important to me support or oppose me leaving.	1 = Almost all would support me leaving-7 = Almost all would oppose me leaving
N2_others_think	Most people who are important to me think I should stay.	1 = Fully disagree- 7 = Fully agree
N3_supp/opp_stay	Most people who are important to me oppose or support me staying.	1 = Almost all would oppose me staying - 7 = Almost all would support me staying
<i>PBC staying</i>		
PBC_diff/easy_stay	For me, to stay in the village over the next 3 years would be ... very difficult/very easy.	1 = Very difficult - 7 = Very easy
<i>Barriers leaving</i>		
BL1_care_others	Leaving is difficult for me because I have family members in the village to care for.	1 = Fully disagree- 7 = Fully agree
BL2_lack_money	I lack the money to finance a new start in the city.	1 = Fully disagree- 7 = Fully agree
BL3_adapt_city	It would be very difficult for me to adapt to the urban life.	1 = Fully disagree- 7 = Fully agree
BL4_networks	I have the necessary personal networks that will help me to be successful in the city.	1 = Fully agree - 7 = Fully disagree
BL5_education	I have sufficient levels of formal qualification/education for a job in the city.	1 = Fully agree - 7 = Fully disagree
BL6_business	I run/have a business here that does not allow me to leave	1 = Fully disagree- 7 = Fully agree
BL7_property	I have no property here, I can easily move.	1 = Fully agree - 7 = Fully disagree
<i>Barriers staying</i>		
BS1_economy	I believe the economic situation in this region will (further) deteriorate.	1 = Fully disagree- 7 = Fully agree
BS2_carreer_opp		

**Table 1 (continued)**

Indicators	Description	7-point Likert scale
<i>Intention staying</i>		
	In the village, it is difficult to develop and improve my professional skills.	1 = Fully disagree- 7 = Fully agree
BS3_no_schools	The lack of access to schools or university makes it difficult for me to stay here.	1 = Fully disagree- 7 = Fully agree
BS4_no_jobs	The lack of jobs makes it difficult for me to stay here.	1 = Fully disagree- 7 = Fully agree
BS5_living_cond	My living conditions here make it difficult for me to stay in the village.	1 = Fully disagree- 7 = Fully agree

Source: Authors' questionnaire; some of the indicators have been recoded to make the interpretation of the results more intuitive

the result.<sup>7</sup> In such a case, the differences in path coefficients could be biased, as respondents from different subgroups may have systematically interpreted measures in conceptually different ways (Sarstedt et al., 2011: 214). Thus, multi-group analysis requires the establishment of data equivalence (to ensure the validity of outcomes and conclusions (Hair et al., 2017: 299)). We apply the measurement invariance/equivalence of composite models (MICOM) procedure for variance-based SEM, e.g. PLS path modelling (Henseler et al., 2016: 413 ff.).<sup>8</sup> The MICOM analysis confirms that the requirements for a multi-group analysis in terms of invariance are met.

### 3.2.2. Indicator operationalisation

In line with the TPB, we measure the intention to stay as an antecedent of the actual behaviour. The behaviour must be clearly specified, not only in terms of target, action, and context, but also in terms of time. In our case, the time horizon is defined as in the three years following the interview. We measure the strength of the intention to stay on a seven point Likert-style scale. Acknowledging that staying and leaving behaviour are intrinsically linked and should not be investigated separately, the highest value on the one end of the scale represents the “staying for sure” intention and the lowest value on the other end of the scale indicates a leaving intention (“leaving for sure”).<sup>9</sup>

Table 1 shows the list of variables with their wording. Similar to the intention, all other TPB variables are measured on seven point Likert-style scales. The way the questions are operationalised closely follows Ajzen's (2006) own suggestions as well as other applications of the theory (in other fields). The selection of indicators mirrors typical perceived benefits and negative outcomes as well as (normative and PBC related) facilitators of and barriers to staying, which are described in the literature (see above) and which were also verified by our qualitative interviews.

### 3.3. Research area and sample selection

We applied a mixed method survey design, which combines the strengths of qualitative and quantitative data collection methods

<sup>7</sup> Establishing equivalence was already considered during the development of the survey instrument. The instrument was developed based on qualitative interviews with members of the Kazakh and Russian population and cross checked through forward/backward translation of the questionnaires between English, Russian and Kazakh, which is the most frequently used method to avoid translation biases (Camfield and Ruta, 2007: 1041).

<sup>8</sup> For a technical application of the MICOM procedure within the SmartPLS software, we refer to Hair et al. (2018: 161ff.).

<sup>9</sup> In order to avoid respondent fatigue caused by questions with similar wording, we separated the batteries and spread them across the whole questionnaire, thus preventing inertia answers for similar sounding questions, which are typical for the reflective constructs.



Fig. 2. Research area.

(Massey, 1987: 1505; Song and Liang, 2016). While our empirical SEM model is a quantitative one, qualitative data were highly relevant for the development of the standardised questionnaire. The qualitative data furthermore substantiate the interpretation of our results. Thus, our research combines a structured survey covering classical socio-economic variables as well as perceptual indicators feeding into the core constructs of our PLS-SEM model with a smaller qualitative research component.

For the quantitative household survey, a random sample of 400 households was drawn in the area of Akmola (north-eastern Kazakhstan), the province surrounding the capital, Astana (see Fig. 2). We followed a three-stage clustering sampling procedure. The province consists of 17 districts (plus two urban regions). First, we excluded the four districts that are within commuting distance of Astana and the provincial capital Kokshetau.<sup>10</sup> Then we randomly drew seven from the remaining 13 rural districts. Second, we picked six villages at random within each district. The information on the number of villages and their names was obtained from the official mail number index combined with data from the national statistical agency. Villages that, after sampling, turned out to have fewer than 50 households were excluded and replaced by a new randomly selected village from that district. Then a random route sampling for the households was applied in the villages. In each village, ten households were randomly selected (except for four comparatively small villages where only five households were sampled). The person between the ages of 16–50 who had most recently celebrated a birthday prior to the interview date was interviewed. In limiting our survey respondents to the maximum age of 50 years, we ensured that we interviewed the age groups with the highest mobility potential. Persons who are older than 50 years rarely have the intention to move anymore (Migali and Scipioni, 2018). This resulted in a total of 400 interviews.<sup>11</sup> In these interviews, relevant data on all adults, as well as on the general socio-economic situation of the household, were collected.

#### 4. Validation of model results

The results of our PLS-SEM are shown in Fig. 3. For the calculation we used the software SmartPLS developed by Ringle et al. (2014).

<sup>10</sup> People living in these areas often commute to the city and the decision is not to stay or move, but to work in the village or commute to the city.

<sup>11</sup> Our proposed sample size of 400 observations greatly exceeds the minimum thresholds of the PLS-SEM according to Hair et al. (2017: 24, 28). PLS-SEM considers sample sizes above 250 as large.

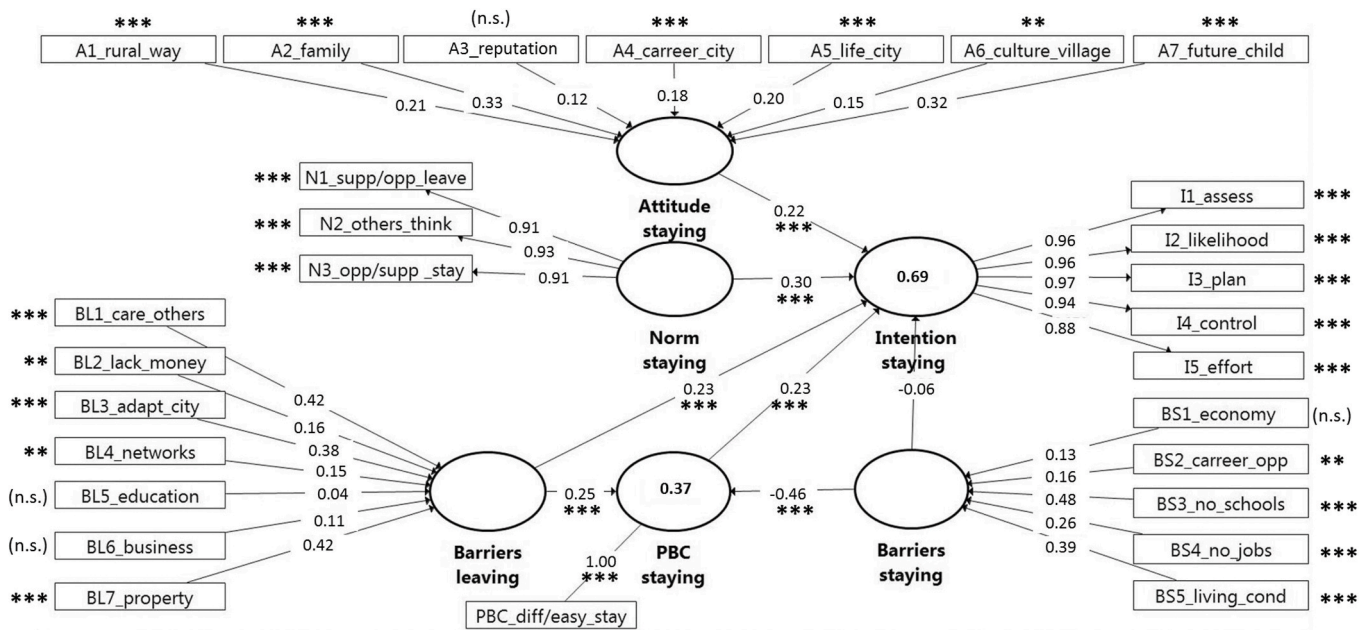
Corresponding descriptive statistics can be found in Table 7 in the appendix. Before the model results are discussed, both the structural and measurement models must be validated.

##### 4.1. Validation of the measurement model

The intention, norm and PBC constructs are operationalised with classical reflective indicators (five, three and one indicators, respectively) (see Table 1 for the wording). Several diagnostics were applied to assess the reliability and validity of the constructs (average variance extracted, outer loadings, Chronbach's alpha, composite reliability, Fornell-Larcker criterion, cross-loadings, and Heterotrait-Monotrait (HTMT) ratio) (Hair et al., 2017: 124–126). According to our diagnostics, no problems could be recognised and we thus consider the suggested reflective operationalisation of the constructs as valid and reliable.

Formative operationalisation requires a range of indicators in which all relevant factors that cause (form) the latent construct are covered. A solid theoretical grounding based on insights from the literature and qualitative research should inform the choice of indicators (Diamantopoulos and Winklhofer, 2001: 271). We use formative operationalisation for those cognitive constructs for which we would like to capture and better understand specific aspects of the constructs domain. This is the case in particular for (1) the beliefs that reflect the perceived benefits and negative outcomes of staying, and hence form attitudes, as well as for (2) perceptions of facilitators and barriers that are linked to the individual's perceived ease or difficulty of performing the particular behaviour (i.e., PBC). To prove that the final selection of formative indicators truly explains the construct, we test the construct validity by means of multiple-indicator multiple-cause (MIMIC) analysis (also known as redundancy analysis) (Chin, 1998: 303, 308; Coltman et al., 2008: 1250, 1252; Diamantopoulos and Winklhofer, 2001: 272). For this, we estimate a PLS model containing only two constructs – one construct is depicted by the formative indicators (as in the model), and the other is related to reflective indicators (see Figure 4 in the appendix). The path coefficient linking the two constructs is indicative of the validity of the designated set of formative indicators. According to Hair et al. (2017: 140), the desired minimum value that should be reached is 0.70 for the path between the formative and reflective construct. All constructs fulfilled the minimum recommendation

As the model is based on ordinary least squares (OLS), multicollinearity should be ruled out in order to receive non-biased coefficients. Hair et al. (2011: 145) warn against variance inflation factors (VIF) above five. The highest VIF we obtained from the formative



Note: \*\*\* = significant at 1%; \*\* = significant at 5%

Fig. 3. Path coefficients and p-values of basic staying model.

indicators is 2.9, giving us confidence that multicollinearity is not an issue in our formative specifications. As a last step in the validation of the formative operationalisation, we focus on the relevance of the separate indicators by analysing their outer weights. With the help of the bootstrapping procedure (5000 samples), we can show that the outer weights are significantly different from zero. The results are indicated by the significance levels in Fig. 3.

Non-significant indicators with high outer loading (i.e., above 0.50) should be interpreted as absolutely important (but not as relatively important), and should be kept in the model (Hair et al., 2017: 148, 151, 185). This is the case with the indicator BL5\_education. However, removing non-significant indicators could lead to omitting theoretically relevant facets of the latent construct. Because empirical benchmark values for comparison are lacking and the theory, as well as our own qualitative results, suggests that education is a crucial dimension as a facilitator of or barrier to making decisions regarding staying and leaving, the indicator is needed to reach content validity. We therefore continue the estimation with the BL5\_education variable, but recommend future studies to cross-check and fine-tune the formative operationalisation. Three indicators are only significant at the 10% level: A3\_reputation, BL6\_business, and BS1\_economy. But again, with view to content validity, we keep them in the model.

#### 4.2. Validation of the structural model

The assessment of the structural model provides insights into how well the specification predicts the intention to stay, and what the relations between the latent TPB constructs (shown as ovals in Fig. 3) are. For the structural model too, it is crucial to control for multicollinearity. With 2.5 as the highest VIF value, the structural model is not plagued by collinearity issues. Further key criteria for assessing the structural model are the significance of path coefficients, the level of variance explained (R²), and the effect size. The model has a good predictive overall accuracy (R² = 0.69).<sup>12</sup> The path coefficients are indicated next to the

arrows between the ovals shown in Fig. 3 and correspond to the linear regression coefficients. We see that the coefficients of the structural paths all have the expected signs as predicted by the TPB (see Fig. 1). All path coefficients between the three main TPB constructs (attitudes, norms, PBC) and the intention are highly significant, whereby the norm construct has the highest influence on the intention to stay in the village. The paths between the two additional formative belief constructs (leaving and staying barriers) and the PBC construct are significant, but the path to the intention construct is only significant for the leaving barriers construct. In order to identify the contribution of the direct intention predictors to the total intention variance explained, we calculate the f² effect size. The measured effects are small, except for the staying barrier construct, which has no direct effect on the intention (but a strong effect on PBC) and norms that have a medium effect. Finally, the Q² value of the two explained constructs, intention (0.57) and PBC (0.35), are considerable above zero, which provides clear support for predictive relevance. As a last measure we calculate a second measure of effect size q² which allows the assessment of an exogenous construct's contribution to an endogenous latent variable's Q² value. All constructs have, albeit small, predictive relevance for the intention construct. The effect size (q²) of the staying barriers construct has a medium predictive relevance for the PBC construct, while the leaving barriers construct has only small predictive relevance for the PBC construct (Hair et al., 2017: 207 ff., 220).

### 5. Results and discussion

#### 5.1. Basic model

Most of the respondents in our sample intend to stay in the village (almost 70%). Almost three quarters of those intending to stay give family as a reason, and 40% indicate job related reasons. While the biggest share of respondents with a positive intention to move provide job related reasons, about a third indicates that they are mainly motivated by better opportunities for their children.

The effects of our main constructs – attitudes, norms, and PBC – on the intention to stay are of similar magnitude, as all are highly significant and the path coefficients are of similar size. Staying barriers

<sup>12</sup> The predictive accuracy of the PBC construct is only moderate with an R2 of 0.37.

strongly reduce peoples' PBC over their staying behaviour. However, interestingly, staying barriers are only effective when leaving barriers are considered at the same time. Thus, a mediation effect exists. This confirms our hypothesis of an interaction between leaving and staying considerations; perceiving strong leaving barriers, e.g. considering moving difficult, leads to the perception that staying is (in comparison) rather easy. This highlights the importance of our hybrid approach of modelling the staying and leaving intentions and of using staying and leaving related indicators simultaneously.

When looking at direct and indirect effects of the mediating PBC construct, it is worthwhile to investigate the total effect as the sum of direct and indirect effects (Hair et al., 2017: 197). For the staying and leaving barriers constructs, this results in a total effect of  $-0.269$  and  $0.344$ , respectively. Thus, the effect of leaving barriers is overall stronger than the effect of staying barriers. This result is also supported by other data from our survey: around 25% of the respondents referred to themselves as constrained stayers compared to only 7% who referred to themselves as forced leavers.

The strongest indicator of forming an **attitude** toward staying is related to the preference to be close to family (A2). As discussed above, family bonds are widely seen as an important factor binding people to one place. The attitude towards staying is also positively influenced when people enjoy the rural way of life (see the indicator A1\_rural\_way).

The indicator A7 – better future for family/children in the city – has the second strongest effect on the attitude toward staying. Most people believe that a better future for their families is possible in the city, which in turn diminishes their attitude towards staying (Table 7 in the appendix). As mentioned above, while the greatest share of respondents intends to leave for job related reasons, about a third indicated that they are mainly motivated by better opportunities for their children. Other indicators highlighting differences between city life and village life, including the lack of cultural life in the village (A6), enjoying the city life (A5), and having better career opportunities in the city (A4) are, in comparison, less influential. All these indicators may relate to the Soviet narrative that “cities are the cradle of modernization and progress (in all societal areas)”. This narrative seems to have been weakened, but is still in place and perpetuated in today's Kazakhstan (Alexander et al., 2007: 2). Cultural amenities (like theatres, operas and cinemas) and Soviet style development opportunities for children (e.g. the local chess club) exist in urban centres and are often mentioned by villagers as missing in the village. Our qualitative results clearly demonstrate that rural Kazakhs continue to dream of participating in modern Kazakhstan. Additionally, interviewees emphasise the concentration of political institutions in Astana. Being close to these centres of power is seen as desirable.

The construct of **norms**, which describes the peer pressure to stay, has the strongest effect on the intention to stay. Hence, despite living in an area with a high degree of outmigration, cultural norms still seem to support staying over leaving. This is surely also linked to the typically strong family bonds in Kazakhstan, and is also reflected in the fact that two thirds of the respondents stated that migration decisions are not purely individual decisions, but are made jointly within the household.

The **PBC** construct is a mediator for staying and leaving barriers. The **staying barriers** construct has no direct effect on the staying intention in the model, but it has an indirect effect via the PBC construct. The strongest single indicator of the staying barriers construct is the lack of education facilities (BS3) in rural areas, which of course is of highest relevance for families with children and young adults. It may lead to a phenomenon called ‘migrating to learn/learning to migrate’: students who move far away from their home region to study, often do not return after their studies (Rérat, 2016: 279). In contrast, graduates who study in their home region have a much higher propensity to stay because they keep in touch with their area and/or their social surrounding, and may thus break the ‘migrating to learn/learning to migrate’ chain (Haapanen and Tervo, 2012: 587; Li et al., 1996: 51). Similarly, the perception of difficult rural living conditions (BS5) and the lack of jobs (BS4) are

strong staying barriers. Only if there are sufficient job opportunities can people stay. This is particularly important in northern Kazakhstan, where family farms are scarce, and people usually work as employees in big agro-holdings (see also Petrick et al., 2013: 164). Lack of career development (BS2) is less relevant.

**Leaving barriers** work directly against a leave intention (and thus support staying), but they are also mediated through the PBC construct, where they increase the PBC over leaving. Although the path on the PBC construct is not as strong as that of the staying barriers, their high total effect (see above) results from mediation. The two strongest barriers to moving are the obligation to take care of other people (BL1) and, in line with the literature, immobile property (BL7), which both reduce the intention to move.

An interesting result shows that a perceived inability to adjust to urban life (BL3) is important. This indicator is probably related to the fact that rural people have to deal with a new and unknown administrative environment. Here feelings of insecurity and inferiority may move to the forefront. This indicator proved to be a stronger barrier than the more economically and financially oriented indicators: during our qualitative interviews, we found that the housing situation in cities and especially in Astana is seen as problematic, and that it is extremely difficult to find affordable housing. This is linked to the fact that the city governments (especially in Astana) keep the supply of new living spaces artificially low by regulation and thus keep prices and rents up to slow down rural to urban migration. Despite this, lack of financial means (BL2) is among the weaker leave barriers. Extended family networks may compensate for financial difficulties.<sup>13</sup> Thus, the variable indicating a lack of personal networks in the city (BL4) is a significant, albeit not very strong, leaving barrier.

## 5.2. Multi-group analysis

In the following section, we present results from the multi-group analyses for demographic and income related variables. Summary statistics of these variables, including p-values of the significant path differences can be found in the appendix (see Table 6). We consider only those paths where a significant difference was identified.<sup>14</sup> First, we discuss the differences relating to ethnicity and age as basic demographic indicators. Second, we discuss results for different income groups.

Since the region is home not only to ethnic Kazakhs but also to Russians, we first searched for differences relating to the **ethnic background**.<sup>15</sup> Ethnic Russians have a significantly higher staying intention than ethnic Kazakhs (the average of our five intention variables is 5.43 for Russian compared to 4.49 for Kazakhs, significant at the 1% level of two-sample t-test).

The multi-group analysis showed one significant path difference when comparing the two ethnicities. For ethnic Kazakhs, attitudes have a significant and relatively high effect on the staying intention, while for ethnic Russians the attitude path is not significant at all (Table 2). Surprisingly the strongest indicator forming the staying attitude, and

<sup>13</sup> According to Dietz et al. (2011: 21), about 40% of the migrants financed their move primarily through family networks.

<sup>14</sup> A multi-group analysis for gender and education did not produce significant differences. Yet, several other variables resulted in significantly different paths in the multi-group analysis. However, in these cases the group was either too small (the rule of thumb requires a group size of at least 70 in our model) and/or did not provide stable results when running a permutation test for uneven group sizes (Hair et al., 2017: 24; Hair et al., 2018: 159). Therefore, we refrained from discussing/showing these results.

<sup>15</sup> In our sample, 39% of respondents were ethnic Kazakh, 56% were of European ethnicity (of which 90% were Russian) and about 5% belonged to other ethnicities, such as Uzbek. Non-Russian European ethnicities are heavily Russified, therefore in the following we refer to this group simply as Russian. People of other ethnicities have been excluded from the multi-group analysis.



thus the preferences, of ethnic Kazakhs is not staying close to family in the village (A2) (only the second strongest), but seeing a better future for their children in the city (A7), which reduces a positive attitude towards staying. When looking at the descriptive statistics (not shown here), Kazakhs have in total more positive views towards urban life than Russians. Several explanations for this may exist: (1) Many Russians (and Europeans) left in the past towards Russia (or Europe). Those who stayed behind are supposedly more rooted in the place. (2) The nation building process in Kazakhstan and the ‘Kazakhification’ taking place, the effects of which are most visible in Astana, may have left rural Russians with the view that modern Kazakh cities have been Kazakhified and that they have comparatively fewer opportunities there.<sup>16</sup>

We also found two significant path differences regarding staying and leaving barriers when comparing three age groups.<sup>17</sup> As expected, young adults have lower staying intentions than senior people (4.43 vs 5.51) and middle-aged people (4.43 vs 5.39) (both significant at the 1% level of two-sample *t*-test). Older people have a generally greater tendency to stay put than younger people. This is not a new finding as Erickson et al. (2018: 10) point to substantial differences in the predictors of staying for young adults compared to older age groups. The transition to adulthood may be a period that filters leavers out of communities. Young adults experience strong leaving barriers, which have a significant influence on the PBC over staying (compared to middle-aged people). Interestingly, the strongest indicator affecting leaving barriers is the assumed difficulty to adapt to an urban lifestyle (BL3). It seems that growing up in a remote village may leave some younger people feeling uneasy about modern city life. In line with the literature, other strong factors influencing leaving barriers are the responsibility to take care of others (BL1) and (immobile) property (BL7) (Table 3).

In comparison to younger and middle-aged people (the latter effect was only significant at the 10% level and is therefore not further reported), more senior people show a direct effect of staying barriers on staying intention. Their intentions are directly and negatively affected by staying barriers. The indicator with the strongest influence is lack of schools or higher education facilities (BS3). People in the age range between 40 and 50 often have children who are themselves teenagers or young adults. If their children want to pursue further education this usually means that they have to move to an urban area and the parents

**Table 2**  
Path coefficients and out weights of pairwise comparisons Russian vs Kazakh.

Path coefficients	Russian	Kazakh
Attitude → intention	0.13	0.36***
Indicators of attitude construct		
A1_rural_way	0.21**	0.21**
A2_family	0.35***	0.28***
A3_reputation	0.16	0.05
A4_career_city	0.31***	0.09
A5_life_city	0.15	0.22**
A6_culture_village	0.19**	0.19**
A7_future_child	0.19	0.41***

Note: \*\*\* = significant at 1%; \*\* = significant at 5%; Indicators for non-significant paths are not interpreted.

<sup>16</sup> Kazakh is now the official national language and is becoming more and more important in businesses and especially within the administration, which is dominated by ethnic Kazakhs (Bissenova, 2017: 652; Peyrouse, 2007: 484–485; Wolfel, 2002: 501). As pointed out by Laitin (1998: 105–157), Russians do not see the same opportunities for their children within the Kazakh state as Kazakhs do.

<sup>17</sup> We grouped our respondents into three age groups: Junior (16–30 years), middle-aged (31–40 years), and senior (41–50 years). Our youngest age group reflects more or less the category of young adults in contemporary studies (see e.g. the summary of Aharon-Gutman & Cohen, 2019: 6).

**Table 3**  
Path coefficients and out weights of pairwise comparisons junior vs middle-aged.

Path coefficients	Junior	Middle-aged
Barriers leaving → PBC	0.32***	0.06
Indicators of barriers leaving construct		
BL1_care_others	0.39***	0.49***
BL2_lack_money	0.14	0.01
BL3_adapt_city	0.46***	0.29
BL4_networks	0.09	0.38
BL5_education	0.13	−0.07
BL6_business	0.10	0.02
BL7_property	0.33***	0.44***

Note: \*\*\* = significant at 1%; \*\* = significant at 5%. Indicators for non-significant paths are not interpreted.

may decide to join them. This was also confirmed by our qualitative interviews. Lack of jobs (BS4) and harsh living conditions (BS5) also significantly influence the staying barriers of senior people (Table 4).

In the multi-group analysis of income related variables we concentrate on the comparison of a relative income indicator, as the analysis for absolute income did not produce significant differences. We did not find significant differences in the staying intentions between people belonging to the below average income group and the average income group. However, the patterns explaining staying intentions were different for the two income groups (Table 5).

The staying intention of those who perceive themselves as average income earners in the village is differently influenced by attitudes compared to those who perceive themselves as below average. While for average income earners their attitude has a significant influence, the poorer segment most probably is less free in their decisions and can therefore not follow their preferences in the same way. For people with an average income, the expectation of having better career opportunities in the city (A4), enjoying the city life (A5), and seeing a better future for one’s children in the city (A7) lower their attitudes towards staying. However, positive staying attitudes are formed by the wish to remain close to one’s family in the village (A2); also the indicator, enjoying the rural life, is quite important (A1) (Table 5). These two factors are less essential to people with comparatively lower (below average) incomes, whereas those factors that lower the attitude of staying (A4, A5, A7) are more important to this group. Thus, people with below average income seem to perceive incentives to improve their social standing by moving, as higher.

Staying barriers have a direct and significant effect on the staying intention of a person with below average income (lower part of Table 5). These people are pushed out of the village by barriers that prevent them from forming a staying intention. Interestingly, job related indicators do not seem to play a role (BS2\_career\_opp, BS4\_no\_jobs). Households of below average income may either see no difference between the situation in the village and in the city or they assume that low skilled work can be found almost everywhere. It is rather the general living condition in the village (BS5) that seems to be unbearable and the lack of schools and other education facilities, which is a hindrance to staying. Poorer

**Table 4**  
Path coefficients and outer weights of pairwise comparisons junior vs senior.

	Junior	Senior
Barriers staying → intention	0.04	−0.18**
Indicators of barriers staying construct		
BS1_economy	0.24**	0.07
BS2_career_opp	0.19	0.19
BS3_no_schools	0.50***	0.52***
BS4_no_jobs	0.13	0.29***
BS5_living_cond	0.40***	0.33**

Note: \*\*\* = significant at 1%; \*\* = significant at 5%. Indicators for non-significant paths are not interpreted.

**Table 5**

Path coefficients and out weights of pairwise comparisons relative income below average vs average.

Path coefficients	Below average	Average
Attitude → intention	0.14	0.321***
<i>Indicators of attitude construct</i>		
A1_rural_way	0.30**	0.198**
A2_family	0.40***	0.396***
A3_reputation	0.09	0.128
A4_career_city	0.27***	0.211**
A5_life_city	−0.03	0.239***
A6_culture_village	0.13	0.048
A7_future_child	0.40***	0.267***
Barriers staying → intention	−0.19***	0.03
<i>Indicators of staying barriers construct</i>		
BS1_economy	0.16	0.08
BS2_career_opp	0.09	0.19
BS3_no_schools	0.42***	0.42***
BS4_no_jobs	0.10	0.42***
BS5_living_cond	0.60***	0.36**

Note: \*\*\* = significant at 1%; \*\* = significant at 5%. Indicators for non-significant paths are not interpreted.

households are less likely to have the financial means to pay for boarding schools or costly transport.

## 6. Conclusions

Migration flows (both internal and international) reshape contemporary societies. When people leave rural areas, aggravated problems of underdevelopment can arise. Yet, even in regions with strong out-migration dynamics, such as rural Kazakhstan, most people still stay put. This is confirmed by our data (almost 70%). While migration is given considerable attention, both politically and academically, it is clear that sustainable rural development needs policies tailored to those who are willing to stay. Therefore, it is of utmost importance to broaden our knowledge of the drivers that compel people to defy strong incentives to leave and instead form an intention to stay. In this contribution we thus address the formation of staying intentions and shed light on the factors that motivate these decisions. In our approach, we acknowledge an intrinsic link between staying and leaving decisions. Therefore, we focus our model on the staying intention, but our hybrid intention variable reflects factors relating to both staying and leaving. Moreover, the intrinsic link between staying and leaving decisions is also reflected in the simultaneous investigation of specific staying and leaving barriers.

Our basic model confirms the influence of the three TPB constructs (attitudes, norms and PBC), whereby norms have the highest influence on the intention to stay. It also shows the existence of a mediation effect, which confirms an interaction between staying and leaving barriers. Thus, any policy reducing existing leaving barriers would have a multiplier effect as it would make staying comparatively more difficult. We find that leaving barriers are generally more influential, but less so for people above 40 years old, who overall are less likely to leave. In our model, staying barriers are only effective through mediation (i.e., if leaving barriers are considered simultaneously), indicating that push factors have a lower relevance in reducing staying intentions. This may be one of the reasons why stayers are often negatively connoted in the

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jrurstud.2020.10.054>.

## Appendix

literature as the people who are left behind. However, as our analysis has shown, most people stay out of responsibility or conviction, because they see a need to care for others or for their property or business, and not because of poverty.

Family bonds and related factors within all constructs proved to be very influential in supporting staying intentions (confirmed also by our qualitative data). The strong influence of norms on the decision to stay or to leave is probably linked to the family, as family members are certainly among the influential peers determining norms. Furthermore, we find a strong generational thinking: the future of the children is a very important factor for the formation (lowering) of staying intentions, especially for ethnic Kazakhs. The strongest single indicator of staying barriers is the lack of education facilities in the rural places of origin (quality and quantity). Indeed, young people leaving for educational purposes is a serious problem in rural Kazakhstan (and elsewhere) as many of them will not return. In extreme cases, as pointed out e.g. by Nugin (2014: 51, 54), the closing down of schools can lead to the extinction of the local population. Lack of education facilities is of particular importance to people who are low on the income ladder and probably see education as an escape from poverty, but do not have the financial means to send their children away for (boarded) schooling. The overall high importance of this influential belief implies that rural areas may face a strong threat of depopulation due to the migrating to learn/learning to migrate phenomenon.

The Soviet narrative that cities are to be seen as the cradle of modernization, together with the Kazakh nation building movement, which also puts modern cities, and in particular Astana, into the spotlight, have been identified as working against staying intentions, especially for ethnic Kazakhs. This is because Kazakhs see more opportunities for themselves and their children in urban areas, probably caused by policies related to Kazakhification and nation building. These policies may have a contrary effect on ethnic Russians. Thus, at least in the rural countryside, policies of Kazakhification may indeed entrench ethnic Russians in rural areas in the north.

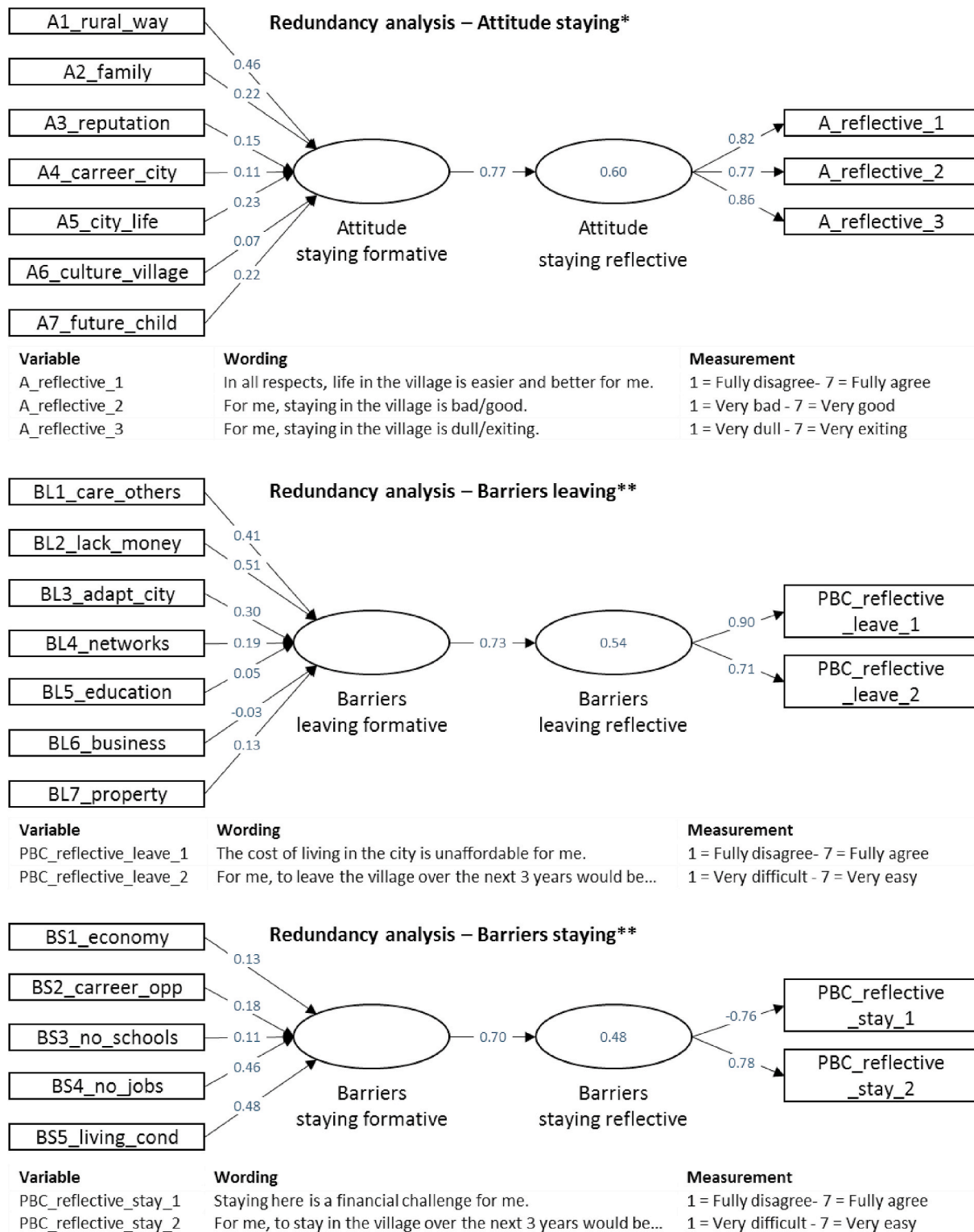
In summary, we conclude that policies reducing rural-urban inequalities may be most effective in reducing the rural exodus. In this regard, improved access to high quality educational facilities (especially in the form of secondary schools and higher education) in closer proximity to villages or at least in commuting distance is of utmost importance. Finally, in line with the literature on the topic of immobility our research confirms that non-economic factors are more important than economic factors when it comes to shaping staying decisions.

## Declaration of competing interest

None.

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Note: \*According to our diagnostics (AVE (average variance extracted), outer loadings, Chronbach’s alpha, composite reliability, and Fornell-Larcker criterion, cross-loadings) the reflective operationalisation of the construct is valid and reliable.

\*\*All diagnostics passed the test except for Chronbach’s alpha. However, the true reliability lies between Cronbach’s alpha, which failed, (representing the lower bound) and the composite reliability, which passed, (representing the upper bound) (Hair et al., 2017: 112). Thus, we believe that the construct is still valid and reliable.

Fig. 4. Redundancy analysis.

**Table 6**  
P-values of multigroup analysis and description of multigroup variables

Group comparisons and group size	Attitude → Intention	Barrier leaving → PBC	Barrier staying → Intention
<i>Ethnicity of respondent<sup>a</sup></i>			
Russian/European (223) vs Kazak (154)	0.01		
<i>Age respondent<sup>b</sup></i>			
Junior (143) vs middle-aged (117)		0.03	
Junior (143) vs senior (140)			0.03
<i>Relative income of household<sup>c</sup></i>			
Below average (134) vs average (183)	0.05		0.02

Note: We conducted pairwise comparisons. In case of three group comparisons, we applied the Bonferroni correction to deal with multiple testing issues and adjusted the significance level in the multigroup analysis and the permutation test from the 0.05 to the 0.02 level (Hair et al., 2018: 158).

<sup>a</sup>If group sizes are very uneven (one group is more than double the size of the other) results can be biased. We followed the recommendation of Hair et al. (2018: 159) and drew another sample of similar size from the larger group and compared both groups with the permutation test. The permutation test showed similar results.

<sup>a</sup> 23 cases of other ethnicities were excluded.

<sup>b</sup> Junior = 16–30 years, middle-aged = 31–40 years, senior 41–50 years.

<sup>c</sup> Measured income level of the household in comparison to other households in the village measured on a ladder from one to ten; average relative income was defined as steps five and six on the ladder; 74 households were of above average income (comparison results to this group are not shown); nine households were excluded because of missing values.

**Table 7**  
Summary statistics of PLS variables

Indicator	Likert scale	Mean	Std. Dev.	1	2	3	4	5	6	7
<i>Intention staying</i>										
I1_assess	1 leave - 7 stay	5.36	2.39	15%	6%	5%	6%	1%	3%	65%
I2_likelihood	1 leave - 7 stay	5.36	2.35	15%	7%	0%	9%	4%	4%	62%
I3_plan	1 leave - 7 stay	5.17	2.46	17%	9%	2%	8%	1%	5%	59%
I4_control	1 leave - 7 stay	5.16	2.45	17%	8%	4%	8%	1%	3%	60%
I5_effort	1 leave - 7 stay	4.39	2.20	13%	15%	4%	27%	3%	6%	33%
<i>Attitude staying</i>										
A1_rural_way	1 disagree -7 agree	5.30	1.99	8%	7%	4%	10%	12%	17%	43%
A2_family	1 disagree -7 agree	6.14	1.42	2%	3%	1%	7%	6%	24%	58%
A3_reputation	1 disagree -7 agree	6.18	1.33	2%	2%	2%	9%	4%	23%	60%
A4_carreer_city	1 agree -7 disagree	3.70	2.16	18%	21%	15%	14%	5%	9%	19%
A5_life_city	1 agree -7 disagree	4.00	2.35	22%	16%	9%	9%	8%	10%	26%
A6_culture_village	1 agree -7 disagree	3.85	2.21	21%	17%	9%	11%	12%	13%	18%
A7_future_child	1 agree -7 disagree	3.04	2.10	35%	18%	6%	20%	3%	5%	13%
<i>Norm staying</i>										
N1_supp/opp_leave	1 support - 7 oppose	4.41	2.27	18%	12%	3%	20%	2%	17%	29%
N2_others_think	1 leave - 7 stay	4.65	2.31	16%	13%	3%	12%	6%	17%	34%
N3_opp/supp_stay	1 oppose - 7 support	4.57	2.27	15%	13%	4%	18%	1%	16%	33%
<i>PBC staying</i>										
PBC_diff/easy_stay	1 difficult - 7 easy	2.74	2.25	13%	7%	2%	12%	2%	13%	52%
<i>Barriers leaving</i>										
BL1_care_others	1 disagree- 7 agree	5.25	2.24	14%	8%	3%	4%	6%	19%	47%
BL2_lack_money	1 disagree- 7 agree	5.06	2.13	10%	9%	7%	8%	11	16%	40%
BL3_adapt_city	1 disagree- 7 agree	4.37	2.42	20%	16%	3%	4%	9%	17%	30%
BL4_networks	1 agree - 7 disagree	3.26	2.40	15%	15%	6%	5%	4%	16%	40%
BL5_education	1 agree - 7 disagree	4.46	2.45	34%	14%	8%	10%	3%	9%	24%
BL6_business	1 disagree- 7 agree	1.59	1.49	82%	5%	1%	5%	2%	2%	4%
BL7_property	1 agree - 7 disagree	5.59	2.18	11%	8%	3%	3%	2%	15%	59%
<i>Barriers staying</i>										
BS1_economy	1 disagree- 7 agree	3.16	1.97	27%	21%	16%	11%	9%	7%	10%
BS2_carreer_opp	1 disagree- 7 agree	4.21	2.29	20%	12%	8%	12%	10%	14%	25%
BS3_no_schools	1 disagree- 7 agree	3.76	2.48	33%	13%	5%	8%	6%	12%	25%
BS4_no_jobs	1 disagree- 7 agree	3.42	2.43	38%	13%	5%	6%	6%	14%	18%
BS5_living_cond	1 disagree- 7 agree	2.20	1.80	52%	25%	5%	4%	3%	6%	6%

Note: n = 400

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