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CEREMONIAL SPENDING AND HOUSEHOLD DEBT

Abstract

This paper examines the relationship between ceremonial spending and household debt in Kazakhstan. More precisely, it investigates the impact of various household characteristics on the volume of ceremonial expenditure and explores the association between ceremonial spending and the incidence of household debt. The effect of a set of household characteristics on ceremonial spending is assessed using a log-linear regression, treating ceremonial expenditure as log per capita values, and using an ordered probit regression, treating ceremonial spending as a share from total household spending. The effect of ceremonial expenditure, as well as household characteristics, on household incidence of debt is then assessed using probit estimation. The study found that the household characteristics associated with age – the age of the head of the household and the mean age within it – influence the volume of ceremonial expenditure. Other factors affecting ceremonial spending were found to be the number of children and the number of elderly people in the household. Furthermore, household debt in Kazakhstan was found to be heavily influenced by the number of children in the household as well. This study contributes to future extensive empirical research on ceremonial spending in Kazakhstan, providing a base for empirical analysis.

Key words: ceremonial spending, household debt, Consumer loans, household income, Kazakhstani family.

Introduction

The primary goal of this paper is to build understanding of the ceremonial spending patterns of households in Kazakhstan. High level of debt is a significant problem for a Kazakhstani family; recent negative economic shocks showed that households' high indebtedness has serious socio-political implications and could lead to unrest. Recently, a bill on bankruptcy of physical persons was passed, and whether ceremonial spending contributes to household debt is a socially and economically significant question which this paper aims to address. The anecdotal evidence suggests that a lot of celebrations and festivities, such as weddings, are organized on credit. However, there is no official data to support or refute this claim.

The data used in the analysis came from a country-wide household survey, where respondents answered detailed questions on their indebtedness and spending patterns. The effect of household characteristics on spending on celebrations is estimated both in a log-linear regression and in a probit model, ceremonial spending volumes being considered as absolute values and as shares from total spending respectively. Then, the hypothesized relationship between ceremonial spending, as well as other household characteristics, and household debt is estimated using probit regression.

Main provisions

The issue of high indebtedness across the population of Kazakhstan is being addressed in governmental legislation. The volume of unsecured consumer loans, typically provided by microcredit organizations, has increased by 28% YoY (Forbes, 2024). According to official data,

84% of Kazakhstan's adult population are in debt, this figure increasing at a rapid pace. The amount of debt overdue by more than 90 days is about 1.4 trillion tenge; that is, 1.7 million people cannot pay off their debts on time (Radio Azattyq, 2023).

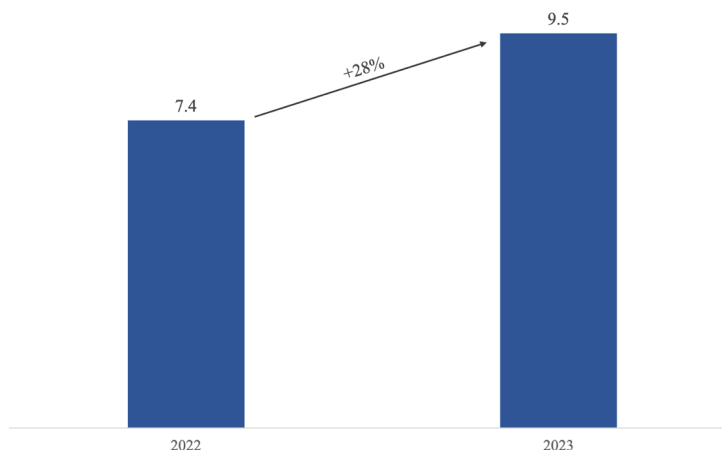


Figure 1 – The Volume of Unsecured Consumer Loans in Kazakhstan, trillions tenge

As of the bill on the bankruptcy of physical persons, since March 3 of 2023, more than 77 thousand applications have been filed.

Consumer loans, in their essence, are crucial to financial markets; one of the true concerns is the purposes to which Kazakhstani residents direct their borrowed money, as well as whether certain purposes have a more significant impact on the current level of debt.

Literature review

The literature review was formed by anchoring this research within a broader landscape of academic discourse on the effect of ceremonial spending on household debt in the context of diverse social, economic, and cultural backgrounds.

Banerjee and Duflo (2006) use household survey data from 13 countries to document the economic lives of the poor population, including their consumption and spending patterns, revealing anomalous choices. The paper makes the key insight that ceremonial spending is a crucial part of budget for many poor households, thus demonstrating that expenditure on festivities plays a large role in forming their debt. Although the authors do not employ regression analysis, the aspects of household survey data that yield most representative results can be highlighted.

Chen and Zhang (2012) also study the correlation between social spending and the level of financial freedom that individuals in China possess, extending the analysis onto the child population's health statuses. They outline that the effects of ceremonial spending are more significant for the poor population rather than those who are financially comfortable due to the fiscal burden being considerably higher. This is a valuable insight for this research, as a parallel can be drawn with ceremonial spending in Kazakhstan; household debt is closely tied with the economic status of said household, thus the effect of ceremonial expenditure is likely more significant for indebted households.

Bloch, Rao and Desai (2004) look at wedding celebrations in rural India or, to be more precise, the determinants of the expenditure on them. More specifically, they investigate the social aspect of it and how "peer pressure" and people's need for validation lead to them engaging in conspicuous consumption. Evidently, the same concept likely holds in both Kazakhstan.

This research is essentially built upon Aldashev (2019), who provides empirical evidence that having access to bank loans leads to Kyrgyzstani households spending more on festivities. In addition, households with higher ceremonial spending levels are more likely to suffer from debt. In other words, higher borrowing leads to higher ceremonial spending, and higher ceremonial spending, in its turn, leads to higher borrowing. The empirical model in this research is inspired by Aldashev, therefore employs a similar framework for the ceremonial spending and household debt patterns in Kazakhstan, providing the opportunity for comparison between the two socially, economically and culturally similar countries.

Materials and methods

Empirical Model

The volume of ceremonial expenditure of a given household depends on a variety of household characteristics (Aldashev, 2019). Empirically, it can be specified in the following way:

$$CS_i = \alpha_0 + \alpha_1 X_i + \epsilon_i$$

Where CS_i is the volume of household ceremonial spending, X_i are household characteristics and ϵ_i is the error term satisfying OLS assumptions.

Household debt is then treated as a dummy variable, which takes value 1 if a given household has active debt and 0 if it does not. The debt is specified as a function of household ceremonial spending and household characteristics in a probit model as follows:

$$P(D_i = 1) = \Phi(z_i) = \Phi(\beta_0 + \beta_1 CS_i + \beta_2 X_i + \epsilon_i)$$

$$z_i = \beta_0 + \beta_1 CS_i + \beta_2 X_i + \epsilon_i$$

Where D_i is demand for borrowing, CS_i is the log ceremonial expenditure, X_i is other household characteristics, and ϵ_i is the error term which satisfies OLS assumptions. Assume that $\Phi(z_i)$ follows Normal distribution.

Although the households' volumes of debt, as well as their ability to repay it, are significant to the relationship being analyzed, such data is unavailable. Nevertheless, the incidence of debt is a useful metric as well, as it could mean that a household's spending exceeds its income.

Data and Stylized Facts

The data used in the empirical analysis was obtained from a country-wide household survey – “On the influence of traditions, culture and history on economic results in Kazakhstan” – carried out by the “Public Opinion” Research Institute. The data was collected by the institute specifically in the framework of this project and is hence not yet available to the general public.

The data presents responses from 969 households, fairly evenly distributed across the country. The figure below represents the geographical distribution of the households participating in the survey, presenting evidence of the sample's randomness.

The information taken from the survey includes dummies on debt, which indicated whether a household took out a loan in the past 12 months, whether the household spent on ceremonies within the same time frame and if so, what was the volume of that expenditure. The household characteristics used in analysis were household income, the mean age in the household, the nationality, age and level of education of the head of the household, the share of females, the number of children and elderly people, as well as region and type of residence.

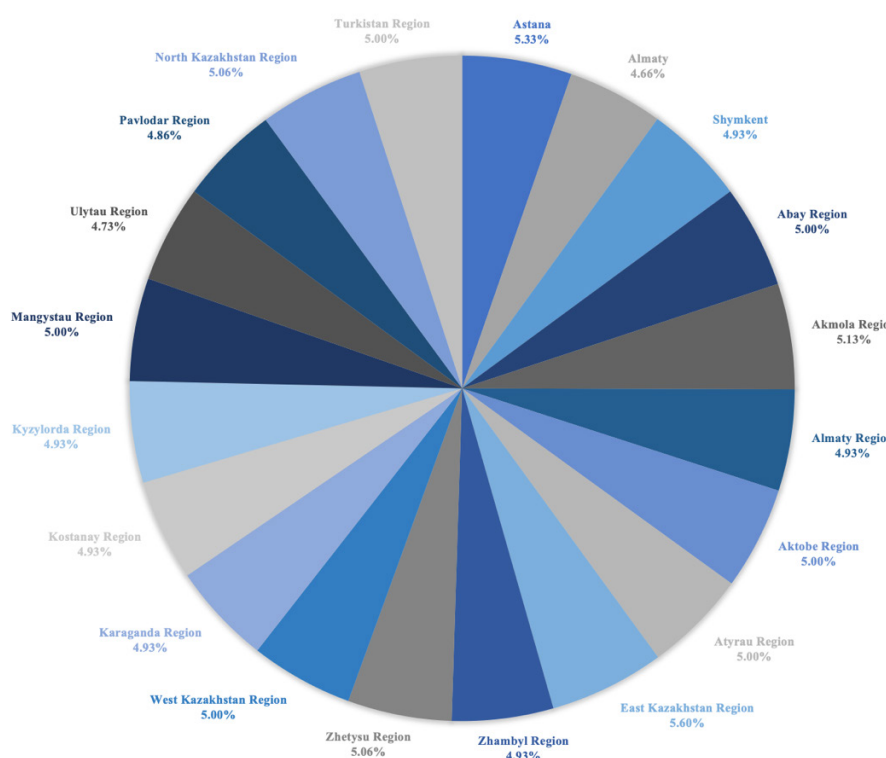


Figure 2 – Geographical Distribution of Households

Upon primary data analysis, it was found that an average Kazakhstani resident spends on average 1,012,429 tenge on celebrations annually. Ceremonies account for 30% to 40% of households' total spending monthly on average. The mean ceremonial spending per capita is 78,184 tenge. The survey also provided data on how much each of the most common types of celebrations contributed to household ceremonial spending. The table below summarizes how much households spent on each of the celebrations and rituals in the past 12 months.

Table 1 – Descriptive Statistics on Ceremonial Spending

Celebration	Mean	Median	Standard Deviation	Minimum	Maximum	N of non-missing values
Weddings from the bride's side (Uzatu Toys)	1,746,786	1,000,000	1,567,681	60,000	6,000,000	28
Weddings from the groom's side (Uilenu Toys)	1,680,466	1,600,000	1,706,485	500	7,000,000	44
Housewarmings and celebrations associated with the purchase of a new car	1,044,477	333,500	1,395,396	20,000	5,000,000	44
Anniversaries	834,342	300,000	1,885,366	10,000	1,500,000	131
Funerals	820,000	500,000	1,276,822	20,000	8,000,000	38
Celebrations associated with childbirth	523,118	300,000	609,248	15,000	3,000,000	85

Gifts given and received on each of these occasions also contribute to household ceremonial spending. The table below summarizes how much money was given to households in gifts or as a gesture of support from their guests.

Table 2 – Descriptive Statistics on Gifts Received on Ceremonies

Celebration	Mean	Median	Standard Deviation	Minimum	Maximum	N of non-missing values
Anniversaries	919,882	200,000	2,952,896	10,000	2,000,000	131
Funerals	1,019,655	600,000	1,345,398	100,000	7,000,000	84
Weddings from the groom's side (Uilenu Toys)	926,618	940,000	853,542	10,000	3,500,000	100
Weddings from the bride's side (Uzatu Toys)	730,790	500,000	593,105	10,000	1,500,000	59
Celebrations associated with childbirth	361,797	225,000	372,131	10,000	1,500,000	151
Housewarmings and celebrations associated with the purchase of a new car	258,158	100,000	411,020	10,000	2,000,000	89

As of household debt, 30% of households in Kazakhstan have taken out a loan in the previous 12 months, meaning that they have active debt. 66% of households took out their loans in commercial banks, and 17% – in microcredit organizations. 10% of households are in debt to a private person, and roughly 4% owe to pawnshops and the Agriculture Financial Support Fund.

For the regression analysis, a set of household characteristics, including yearly household income, was formed, where each of them will serve as independent variables with a hypothesized relationship with ceremonial spending. Given that ceremonial spending and income are given on household levels, they were transformed into per capita values. Additionally, per capita ceremonial spending and per capita household income are taken as natural logarithms to approximate their distribution to that of Normal distribution.

Per capita log household income

The higher the income of the household, the higher are the financial resources that could be directed towards spending on rituals. Hence, a positive relationship between household income and ceremonial spending is expected. The maximum value of log per capita household income is 16.706, meaning that the maximum tenge value of per capita household yearly income is approximately 17,999,958 tenge. Similarly, the minimum value of log per capita household income is 12.388, meaning that the minimum tenge value of per capita household yearly income is approximately 239,999.

The age of the head of household and the mean age in the household

Apart from nationality, there are also likely differences associated with spending patterns across generations. For this reason, age is considered and separated into two variables – the age of the head of the household, who is likely to make major decisions associated with spending, and the mean age of all members of the household. The mean age in an average Kazakhstani household is 39.7 years, whereas the age of an average head of a Kazakhstani household is 50 years.

The level of education of the head of the household

In another hypothesis, a more educated head of a family will spend less on ceremonies. Education is divided into three categories, specified as dummy variables – secondary education, professional secondary education and higher education. The head of the household is then considered low-skilled,

medium-skilled and high-skilled respectively. 47% of all heads of households considered in the analysis are medium-skilled, 40% are high-skilled and 13% are low-skilled.

Numbers of children and elderly people in the household

A direct theoretical correlation cannot be drawn between the presence of children or elderly people in the household, except for the possibility that the presence of elderly people could influence ceremonial spending due to the age component mentioned above. Nevertheless, these variables are still beneficial to include in analysis for the purpose of checking if there is, in fact, some sort of relationship. Household members aged under 18 are considered children and members aged over 65 are considered elderly. There are households without children and elderly people present in the sample; the maximum number of children in one household is 5, whereas that of elderly is 2.

Share of females in the household

This variable is included for the purpose of discovering whether gender has an impact on ceremonial spending. The mean share of females in households is 0.5; there are household composed of males only, as well as females only.

Residence

In this sample, there are two types of household residence – city and village. Due to the obvious economic, industrial and social differences between them, there is potential for a correlation with the volume of ceremonial spending; thus, this variable is included as a dummy. 32% of households in the sample reside in cities while 68% live in villages.

Region

There are likely to be economic differences between the different regions of Kazakhstan that could influence household spending patterns and what portion of income is directed towards rituals and ceremonies. This variable is included as a dummy as well. The geographical distribution of households interviewed in the survey is fairly uniform; the region with the most respondents is East Kazakhstan, while Almaty presents the fewest number of households in the dataset.

Although the households' levels of financial literacy would be of interest, such data is unavailable.

Results and discussion

Table 3 below provides the regression results corresponding the effect of household characteristics on ceremonial spending, specified by the empirical equation:

$$CS_i = \alpha_0 + \alpha_1 X_i + \epsilon_i$$

Dummy variables of regions were omitted from this summary and onward due to irrelevance to the models.

Table 3 – The Effect of Household Characteristics on Ceremonial Spending

Dependent Variable: Log per capita ceremonial spending			
Variable	Coefficient	Standard error	Significance
Log per capita income	0.20	0.19	
Share of females	0.15	0.55	
Number of children	0.09	0.15	
Number of elderly people	-0.42	0.18	**
Household mean age	0.05	0.02	***

Continuation of table 3

Head of the household age	-0.03	0.01	***
Head of the household medium-skilled	0.09	0.35	
Head of the household high-skilled	0.04	0.36	
Household resides in a city	-0.27	0.30	
F			1.89
R ²			0.28
N			152

* – significant at $\alpha = 0.1$ ** – significant at $\alpha = 0.05$ *** – significant at $\alpha = 0.01$

From the regression results, there are three significant variables in the model – the number of elderly people in the household, the mean age in the household and the age of the head of the household. Specifically, the number of elderly people and the age of the head of the household are negatively correlated with the volume of ceremonial expenditure. The reason for this is most likely a social one; a possible explanation could be that younger people are more psychologically inclined towards status spending.

Log per capita income does indeed have a positive effect on ceremonial spending; however it is not significant. The gender composition of households, the number of children in them, the levels of education of heads of households and the type of residence are not significant to this model either.

There are only 152 observations in this regression because a large portion of the respondents preferred not to give a specific number for their ceremonial expenditure or struggled to recall it. Hence, the next regression presents the effect of household characteristics on the share of ceremonial spending out of the total household spending. This part of the survey was obligatory; thus, there is no issue with the number of observations. Since the question was given in the form of several answer options (i.e., if the share of ceremonial spending out of total spending was under 10%, under 20%, etc.), I use ordered probit. The regression results are summarized in Table 4.

Table 4 – The Effect of Household Characteristics on the Share of Ceremonial Spending from Total Spending

Dependent Variable: Share of ceremonial spending out of total spending			
Variable	Coefficient	Standard Error	Significance
Share of females	-0.15	0.12	
Number of children	-0.09	0.03	***
Number of elderly people	-0.18	0.06	***
Household mean age	-0.00	0.00	

Continuation of table 4

Head of the household age	0.00	0.00	
Head of the household low-skilled	0.00	0.12	
Head of the household medium-skilled	-0.05	0.08	
Household resides in a city	0.13	0.09	
LR chi2(27)			182.14
Log likelihood			-1723.40
N			946

* – significant at = 0.1

** – significant at = 0.05

*** – significant at = 0.01

With this approach, there are two variables significant to the model – the number of children and the number of elderly people in a household. The number of children likely has a strong effect on the volume of ceremonial spending due to those resources that could have been spent on festivities being instead directed towards those expenses that bringing up children requires. As of the number of elderly people, the previously mentioned negative correlation holds.

Table 5 below provides the regression results for the effect of ceremonial spending on household debt, specified by the empirical equation:

$$P(D_i = 1) = \Phi(z_i) = \Phi(\beta_0 + \beta_1 CS_i + \beta_2 X_i + \epsilon_i)$$

$$z_i = \beta_0 + \beta_1 CS_i + \beta_2 X_i + \epsilon_i$$

Table 5 – The Effect of Ceremonial Spending on Household Debt

Dependent Variable: Incidence of debt			
Variable	Coefficient	Standard Error	Significance
Log per capita ceremonial spending	0.10	0.09	
Log per capita income	0.02	0.19	
Share of females	-0.81	0.57	
Number of children	0.39	0.16	**
Number of elderly people	-0.18	0.22	
Household mean age	0.01	0.02	
Head of the household age	0.00	0.02	

Continuation of table 5

Head of the household low-skilled	-0.44	0.40	
Head of the household medium-skilled	-0.06	0.30	
Household resides in a city	-0.25	0.31	
LR chi2(27)			28.57
Log likelihood			-84.85
N			144

* – significant at $\alpha = 0.1$ ** – significant at $\alpha = 0.05$ *** – significant at $\alpha = 0.01$

Per capita ceremonial spending has no significant effect on the incidence of debt, and the only significant variable in this model is the number of children. In other words, the more children a Kazakhstani family has, the likelier it is that said family is indebted, which is due to the increased spending that emerges with childbirth. In 2023, 1.3 trillion tenge in social payments for families with more than 4 children was being directed to 2.6 million households, the former value increasing by 40% YoY (Vecher.kz, 2023). According to the empirical results above, the growing number of consumer loans being issued could be in a statistically significant positive correlation with the growing number of large families.

One of the potential explanations for the lack of relationship between ceremonial spending and household debt is issues with the data – a portion of respondents preferred not to answer the question if they had active debt, thus generating missing values in the debt variable and a smaller number of observations than could be needed for better estimates. Naturally, it is also possible that households in Kazakhstan organize festivities using their savings, and ceremonial expenditure has no sufficient impact on households' indebtedness, the latter rather being attributed to other socio-economic factors.

Conclusion

When analyzing the effect of household characteristics on log per capita ceremonial spending, we see that the factors associated with age – the mean age in the household, the age of the head of the household and the number of elderly people – are significant to the model, indicating that age has a strong effect on decision-making on ceremonial expenditure. According to the empirical results, older people are less inclined towards status spending than younger Kazakhstanis. When ceremonial spending was taken as a share of total spending in an ordered probit regression, another highly significant variable was observed, that being the number of children, also having a negative effect coefficient. One possible explanation to this is that the expenses associated with childbirth and taking care of children in general likely triggers changes in households' spending patterns.

As of household debt, the only variable having a significant effect on its incidence was found to be the number of children. As mentioned above, families with more children likely spend more and thus their likelihood of borrowing is higher. No significant correlation between ceremonial spending and household debt was observed. It could be possible that Kazakhstani households finance their festivities using their savings and the high levels of indebtedness come from other socio-economic factors; yet, given that this is the first study on ceremonial spending and household debt in the context of Kazakhstan, a foundation is laid for future extensive empirical research to be built upon for the better understanding of status spending patterns and their significance to economic wellbeing.

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САЛТАНАТТЫ ШЫҒЫНДАР ЖӘНЕ ҮЙ ШАРУАШЫЛЫҒЫНЫҢ ҚАРЫЗЫ

Аңдатпа

Бұл жұмыс Қазақстандағы салтанатты шығындар мен үй шаруашылықтары қарызының арасындағы байланысты қарастырады. Дәлірек айтсақ, әртүрлі тұрмыстық сипаттамалардың салтанатты шығындардың көлеміне әсерін зерттейді және салтанатты шығындар мен үй шаруашылығы қарызының пайда болуы арасындағы байланысты зерттейді. Үй шаруашылығы сипаттамалары жиынтығының салтанатты шығындарға әсері лог-сызықтық регрессия арқылы бағаланады, салтанатты шығындарды жан басына шаққандағы капитал мәндері ретінде қарастырады және реттелген пробит регрессиясын пайдалана отырып, салтанатты шығындарды үй шаруашылығының жалпы шығындарының үлесі ретінде қарастырады. Салтанатты шығындардың, сондай-ақ үй шаруашылығы сипаттамаларының үй шаруашылығы қарыздарының жиілігіне әсері кейін пробиттік бағалау арқылы бағаланады. Зерттеу көрсеткендей, жасқа байланысты үй шаруашылығының ерекшеліктері – үй шаруашылығы басшысының жасы және ондағы орташа жас – салтанатты шығындардың көлеміне әсер етеді. Үй шаруашылығындағы балалар мен қарт адамдардың саны салтанатты шығындарға әсер ететін басқа факторлар екендігі анықталды. Сонымен қатар, Қазақстандағы үй шаруашылықтарының қарызына үй шаруашылығындағы балалар саны да қатты әсер ететіні анықталды. Бұл зерттеу эмпирикалық талдау үшін негіз бола отырып, Қазақстандағы салтанатты шығындар бойынша болашақтағы ауқымды эмпирикалық зерттеулерге үлес қосады.

Тірек сөздер: салтанатты шығыстар, үй шаруашылығының қарызы, тұтыну несиелері, жеке табыс, қазақ отбасы.

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ЦЕРЕМОНИАЛЬНЫЕ РАСХОДЫ И ДОЛГ ДОМОХОЗЯЙСТВ

Аннотация

В данной статье рассматривается взаимосвязь между церемониальными расходами и долгом домохозяйств в Казахстане. Исследование направлено на анализ влияния различных характеристик домохозяйств на объем церемониальных расходов и связи между церемониальными расходами и наличием долга домохозяйств. Влияние набора характеристик домохозяйства на церемониальные расходы оценивается с помощью лог-линейной регрессии, рассматривающей церемониальные расходы как логарифмические значения на душу населения, и с использованием упорядоченной пробит-регрессии, рассматривающей церемониальные расходы как долю от общих расходов домохозяйства. Влияние церемониальных расходов, а также характеристик домохозяйства на наличие долга затем оценивается с использованием пробит-регрессии. Исследование показало, что на объем церемониальных расходов влияют характеристики домохозяйства, связанные с возрастом – возраст главы домохозяйства и средний возраст внутри него. Другими факторами, влияющими на церемониальные расходы, оказались количество детей и количество пожилых людей в семье. Кроме того, было обнаружено, что долг домохозяйств в Казахстане зависит от количества детей в домохозяйстве. Данное исследование предоставляет основу для будущих эмпирических исследований церемониальных расходов в Казахстане.

Ключевые слова: церемониальные расходы, долг домохозяйств, потребительские кредиты, доходы населения, казахстанская семья.