

What Causes Large Price Changes on a Post War Country as the Republic of Kosovo? From the Financial Manager's Perspective

Blinera Sylejmani*

Department of Management and Informatics, University of Pristina, Republic of Kosovo;

ABSTRACT

In this paper, we investigate what causes large price changes on a post war country as the Republic of Kosovo. Based on the perceptions of financial managers and using the principal component and regression analyses based on data obtained from 11612 questionnaires with financial managers in different sector in Kosovo. The study finds that price setting rule based on market level, the increase in price are affected from labor costs and price decrease are affected from financial costs and labor costs. Moreover, the price flexibility effect from physical elasticity, and the probability or the frequency of price changes is affected VAT rate changes. The theories explaining price stickiness is explicit contracts, the main reason for price rigidity is quality. The result implies that the change in prices may be impacted by different factors which varies according to their influence. There is no significant relationship between price increase and the impact of factors that influence in change in prices. We conclude that financial managers should adopt a more coordinated type of price setting and analyzing each type of factor more carefully this will contribute to have a coordinate relation between changes in price and factors that effect on it.

Keywords: Changes in price; Increase in price; Impact of factors; Financial managers; Kosovo

INTRODUCTION

Background

Researches in the price change level widely agree that is a weighted average of domestic prices of resources available to the economy for end use, i.e. prices of private consumption, of public consumption expenditure and of investments [1].

Benigno [2] defined that raising prices in an environment with spooked consumers, uneasy stock markets, and competitors waiting to pounce on mistakes has kept many pricing managers from getting a good night's rest. Christiano et al. [3] said the ability to raise prices is a critical element to surviving and even thriving in economy. Shocks and Friedman [4,5] argue that has there been more pressure to find incremental margin gains, given stagnant growth, and, increasingly, inflationary pressures affecting input costs. Goodfriend [6] reveal that their single most feared tactic in today's economic environment is the price increase. Ohanian et al. [7] empathies that understanding the causes and consequences of nominal and real rigidities in an economy is essential for studying business cycles or assessing the impact of macroeconomic policies on that economy. Taylor John [8] said that in state-dependent pricing models, enterprises choose when to change their prices subject to "menu costs". Daniel [9] notice that when enterprises'

costs are fixed regardless of changes in prices (for example, the cost of printing a new schedule of prices), the timing and magnitude of enterprises' price adjustments depend on the state of the economy. There is copious evidence of the relationship between price changes and trading volume from developed markets, which provides an insight into the structure of their financial markets.

Crouch [10] said that the price-volume relationship depends on the rate of information flow to the market, how the information is disseminated, and the extent to which market prices convey the information, the size of the market and the existence of short sales constraints. Geweke [11] noticed that relationship between price changes and trading volume is that absolute price changes and price changes per se are positively correlated with trading volume, though it is recognized that this relationship is generally weaker for the latter. Gabaix [12] said that one of the best-known statistical regularities of financial time series is the fact that the empirical distribution of asset price changes is fat tailed, i.e. there is a higher probability of extreme events than in a distribution.

Previous studies related to price changes in have not been made this is the first of its kind [13,14]. But in other countries there have been researches that have been mainly focused on the impact of changes in the prices of rice and fuel, on the capital market, the trading volume ratio, high-frequency trading and extreme price

Correspondence to: Blinera Sylejmani, Department of Management and Informatics, University of Pristina, Republic of Kosovo, E-mail: blinerasylejmani1992@gmail.com

Received: August 07, 2019; **Accepted:** August 22, 2019; **Published:** August 29, 2019

Citation: Sylejmani B (2019) What Causes Large Price Changes on a Post War Country as the Republic of Kosovo? From the Financial Manager's Perspective. Int J Account Res 7:199. doi: 10.35248/2472-114X.19.7.199

Copyright: © 2019 Sylejmani B. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

movements, liquidity fluctuations [15-19]. As a landlocked territory with relatively weak logistics infrastructure and a small domestic market, the key challenge for the Kosovo economy is to achieve higher private-sector and to create a balance on price. As financial managers prepare financial statements, monitor financial details, review financial reports, analyze market trends price, they are the best sample monster to investigate the changes in price in Kosovo. Further, price changes have been dealt with in many studies using different models and methods of analysis, but what causes changes in price from a financial management perspective has gained little attention.

The purpose of this paper is to advance understanding of what cause changes in price, along with the gradually development of market in Kosovo, the changes in price become the pillar of the national economy industry. Understanding how different factors can influence on price, is the key to finding an optimum price for your products or services. This paper includes factors that help to researching market, analyze data and consider how those factors impact on changes in the prices on a post war country like Kosovo. These factors market represent the guide choice of pricing strategy to counter any unfavorable conditions and to discover the perception of financial managers about changes in price. These factors market represent the guide choice of pricing strategy to counter any unfavorable conditions and to discover the perception of financial managers about changes in price. The remaining parts of the paper are organized as follows: First, we provide an overview about the causes of price increases and the consumers price index on Republic of Kosovo. Following, we present the perceptions of financial managers about changes in price, and compare the impact of each factor that influence the movement of prices in the market and determine their effects. Finally, conclusions and recommendations and the direction for future research are provided.

LITERATURE REVIEW

The causes of price increases

Prices of most of the goods and services at the disposal of the economy, i.e. of consumption were determined by economic activities and the approach of spending at current and constant prices.

a) **Prices of consumption:** Monthly inflation measured by the harmonized index of consumer prices was -0.2% in May 2019, while the consumer price index dropped to an average of -0.2% in May 2019, compared to a previous month. For part of the consumer goods, excess demand was not reflected in prices, owing to the rationing and price fixing policy applied by the Government and from firms that depend on the needs of consumers. Owing to the link between the consumers' price index and wages, this policy had a moderating influence on the general price level of the economy

b) **Prices of public consumption expenditure:** Prices of public consumption are not reflected in market prices of goods and services. As a substitute for the estimated increase in the price of public consumption, these price changes have been measured by the changes in the average salaries of civil servants

c) **Prices of equipment:** The prices of most of the imported equipment are world market prices. Their value at home is determined in accordance with the official rate of exchange, as such equipment is allocated to applicants by the Government. The price

movements of locally produced equipment vary in accordance with the price of imported equipment, owing to their interchangeability.

The consumers' price index

In the absence of a more reliable yardstick, the consumers' price index serves as an indicator of the changes in the price trends for consumer goods. The limitations of the consumers' price index as a yardstick of consumer prices have been more fully explained in the harmonized consumer index May 2019.

a) **Changes in the index:** The overall harmonized index of consumer prices is higher by 3.4% in May 2019 compared to May 2018. Between May 2017 and 2018 the index rose by 1 point and stood at 102.2 (Table 1). Between May 2018 and May2019 the index rose by 3 points and stood at 105.2 (May2015=100). It should be borne in mind that the consumers' price index is affected by

Table 1: Harmonized Consumer Price Index (HICP) January 2010-May 2019 (2015=100), monthly and annual price changes in percent (continued).

Year	Month	Index (2015=100)	Monthly change in percentage	Annual change in percentage
	January	102.2	0.2	-0.2
	February	102.3	0.3	0.0
	March	102.3	0.1	0.1
	April	102.0	0.0	0.4
	May	101.2	-0.2	1.0
	June	101.5	0.1	0.8
2017	July	101.3	0.2	1.2
	August	101.5	0.4	1.5
	September	101.6	0.1	1.4
	October	101.8	0.2	1.5
	November	101.8	0.7	2.1
	December	101.8	0.8	2.9
	Annual average 2018	101.8		1.1
	January	102.0	0.2	-0.2
	February	102.3	0.3	0.0
	March	102.4	0.1	0.1
	April	102.4	0.0	0.4
	May	102.2	-0.2	1.0
	June	102.3	0.1	0.8
2018	July	103.5	0.2	1.2
	August	103.0	0.4	1.5
	September	103.1	0.1	1.4
	October	103.3	0.2	1.5
	November	104.9	0.7	2.1
	December	104.8	0.8	2.9
	Annual average 2018	102.8	:	1.1
	January	105.2	0.4	3.1
2019	February	105.6	0.4	3.2
	March	105.7	0.1	3.3
	April	105.9	0.1	3.4
	May	105.7	-0.2	3.4

Source: Kosovo Agency of Statistics.

the Government subsidies paid for consumer goods and by the timing of the distribution of food rations at controlled prices. This Government policy should be interpreted in the light of the existing link between the consumers' price index and the level of the cost of living allowance paid to wage and salary earners.

b) Changes in the main index components: To analyze the changes in the prices of consumer goods according to the source of the product, a new classification of the index items has been prepared. These items have been classified by groups that differ from those of the consumers' price index. The main difference is in personal services and in direct imports which have been excluded from the different branches. The following comparison enumerates the price changes of commodities by source (Table 2).

(i) **Food:** The average increase in food prices was 0.4 per cent in 2018 as against 2018, and 4.3 per cent in 2019 as against 2018.

(ii) **Agricultural produce:** The average increase in agricultural produce was 0.8 per cent in 2018 as against 2018, and 4.3 per cent in 2019 as against 2018.

(iii) **Fruit and vegetables:** The average increase in fruit and vegetables was 11.7 per cent in 2018 as against 2018, and 15.2 per cent in 2019 as against 2018.

(iv) **Other agricultural produce:** The average decrease in other agricultural produce was 0.5 per cent in 2018 as against 2018, and an increase 4.9 per cent in 2019 as against 2018.

(v) **Textiles:** The average increase in textiles was 0.2 per cent in 2018 as against 2018, and a decrease -2.8 per cent in 2019 as against 2018.

(vi) **Footwear:** The average increase in footwear was 1.5 per cent in 2018 as against 2018, and a decrease -1.5 per cent in 2019 as against 2018.

(vii) **Other industrial goods:** The average decrease in textiles was -1.2 per cent in 2018 as against 2018, and an increase 3.3 per cent in 2019 as against 2018.

(viii) **Services:** The average increase in agricultural produce was 7 per cent in 2018 as against 2018, and 4 per cent in 2019 as against 2018.

(ix) **Purchase of vehicles:** The average decrease in Purchase of vehicles was -0.7 per cent in 2018 as against 2018, and an increase 0.5 per cent in 2019 as against 2018.

(x) **Use of personal transport equipment:** The average increase in use of personal transport equipment was 0.3 per cent in 2018 as against 2018, and 5.1 per cent in 2019 as against 2018.

(xi) **Transport Services:** The average increase in Transport Services was 1.4 per cent in 2018 as against 2018, and 1.0 per cent in 2019 as against 2018 (Tables 3 and 4).

Table 2: Components of the Consumers' Price Index by Source, 2018, 2019.

Source	Increase or Decrease (-)		Weight
	2017 to 2018	2018 to 2019	
Agricultural produce ¹	0.8	4.3	104.3
Fruit and vegetables	11.7	15.2	53
Other agricultural produce	-5.3	4.9	72.3
Food	0.4	0.3	7.9
Textiles	0.2	-2.8	3.3
Footwear	1.5	-1.5	9.1
Other industrial goods ²	-1.2	3.3	161
Services ³	7	4	60.9
All items	1.1	3.4	1000.0

¹ Including beef and poultry meat.

² Including furniture, metal, and chemical products, Pharmaceuticals, plastic goods, electric equipment, production of leather and leather products, manufacture of paper and paper products.

³ Mainly ambulance services, hospital, telephone and telefax services, recreational and cultural services.

Source: Kosovo Agency of Statistics.

Table 3: Monthly and annual price changes in the Items of the Consumers' Price Index, 2018-2019.

Item	Monthly percentage increase		Increase or decrease in points		Weight of item in the index
	2017 to 2018	2018 to 2019	2017 to 2018	2018 to 2019	
Food	0.3	8.3	-0.1	0.3	399.9
Clothing and footwear	-0.7	0.8	-0.1	0.3	38.5
Furniture and house hold goods	-0.5	-1.4	0.0	-0.2	78.6
Rent and Electricity	-0.4	0.9	-0.1	0.5	77.1
Education and culture	-0.3	0.1	0.0	-1.3	54.1
Miscellaneous ¹	1.6	-1	0.4	2.10	104.6
All items	1.1	3.4	0.1	1.1	1000.0

¹ Including medical services, hotel services, housing services, personal service

Source: Kosovo Agency of Statistics.

Table 4: Annual Percentage Increase in Prices of Transport, 2018-2019.

	2017 to 2018	2018 to 2019	Weight
Purchase of vehicles	-0.7	0.5	55.4
Use of personal transport equipment	0.3	5.1	76.0
Transport Services ¹	1.4	1.0	23.1
Total	0.2	3.1	154.4

¹ No more detailed statistic are provided for Annual Percentage Increase in Prices of Transport.

Source: Kosovo Agency of Statistics.

Hypotheses

For many years economy of Republic of Kosovo is facing significant problem of overall increasing general price level. Miečinskiene [20] said that the value of monetary unit falls and decreases its purchasing power - so called inflation appears. To test the first hypothesis, we took four most important factors. The first factor is Inters rate which is essentially a rental or leasing charge to the borrower for the use of an asset. The second factor is gross value added which is the measure of the value of goods and services produced in an area, industry or sector of an economy. Also is important because it is used in the calculation of gross domestic product (GDP), which is a key indicator of the state of a nation's total economy. The third factor is consumer price inflation (CPI) is the overall general upward price movement of goods and services in an economy. Examines the weighted average of prices of a basket of consumer goods and services. The fourth factor is gross disposable household income (GDHI) is the amount of money that households have available for spending and saving after income taxes have been accounted for. As each of those factors has their impact not only the area of prices, but directly and indirectly it touches the various areas of economic and social life, causing many consequences for country's economic development we choose them as the most significant factors that help us to know their influences on changes in prices. Based on this we expect that different factors to have different influence in change in prices on the Republic of Kosovo.

We therefore hypothesize that:

Hypothesis 1: Different factors have different influence in change in prices on the Republic of Kosovo

A price change is the difference in trading prices from one period to the next, by this we mean that share prices change because of supply and demand. If more people want to buy a stock (demand) than sell it (supply), then the price moves up. Or if more people wanted to sell a stock than buy it, the price would fall. One of the most basic reasons of companies in Kosovo raise prices on their products and services is to adjust to increased business costs. However, companies often weigh both internal and external factors when deciding to raise prices. Therefore, we used the same factors as for hypotheses one to see if exist relationship between price increase and the impact of factors that influence in change in prices. We asked the respondents to indicate their degree of agreement with each factor, choosing from among four categories: unimportant (1), of minor importance (2), important (3) and very important (4). Table 5 present the result assigned by financial managers.

We therefore hypothesize that:

Hypothesis 2: There is no relationship between price increase and the impact of factors that influence in change in prices.

Table 5: Price setting rule.

Item	N	Mean	Std. Deviation
Price setting rules	11612	1.11	0.31
Regulatory agency	2765	1.12	0.32
Market level	3738	1.11	0.32
Direct cost-plus variable mark up	2184	1.10	0.3
Direct cost-plus fixed mark up	2139	1.08	0.27
Consumer set	619	1.13	0.33
Competitor prices	167	1.17	0.37

Result from the financial managers that estimate each factor as important in price-setting.

METHODOLOGY

Perritt, Jr noted Kosovo is one of the poorest countries in Europe. About 45 per cent of the population of Kosovo is poor, with another 18 per cent vulnerable to poverty. Sklias and Roukanas highlighted that as much as 13 per cent of population is extremely poor. According to a study [13] of Statistics the Kosovo Inflation Rate is 3.40 %, GDP in Kosovo was worth 7.13 billion US dollars in 2017, imports at 295487.00 EUR Thousand and exports at 36942.00 EUR Thousand. Consumer Price Index CPI in Kosovo decreased to 105.70 Index Points in May from 105.90 Index Points in April of 2019. Consumer Price Index CPI in Kosovo averaged 90.95 Index Points from 2002 until 2019, reaching an all-time high of 105.90 Index Points in April of 2019 and a record low of 76.01 Index Points in August of 2003.

The research was generally focused on financial managers from:

Primary sector: Extraction of raw materials - mining, fishing and agriculture.

Secondary/manufacturing sector: Concerned with producing finished goods, e.g. factories making toys, cars, food, and clothes.

Service/'tertiary' sector: Concerned with offering intangible goods and services to consumers.

The research study was carried on all municipalities in Kosovo such based on the lists provided by the Kosovo Investment and Enterprise Support Agency (KIESA). Table 1 summarizes the sampling procedure and the sample size.

We used SPSS statistical program version 20 for all statistical computations. Structured questionnaire was used for data collection in the location of the financial managers. The questionnaire was pre-tested with one hundred financial managers. The participants were asked to comment on the format of the questionnaire including the aspects like wording, length, and the order of the questions. After, the feedback obtained was incorporate to improve the questionnaire. On average, each questionnaire last about 20 minutes.

The survey set out with the explore of factors that effect on price setting rules. The factors are adapted from [21]. We set several items to assess that which of those factors affect more on price setting. Price setting was measured on a simple scale system "important" or "very important". The result is representing in Table 5.

According to Verhelst and Poel the price increases and price decreases do not occur with the same (conditional) probability. [22] Show for the euro area that price reductions are moderately

less frequent than price increases. In order to analyse what drives price changes and whether there are asymmetries depending on the direction of the price adjustment, the survey included questions about factors that are important for pricing decisions. The factors are adapted from [23] Respondents were asked to assign scores between 4 (very important) and 1 (completely unimportant) to cost factors (labor costs, raw material costs and financial costs) and market conditions (demand and competitors prices) according to their importance for price adjustment. The question was posed separately for price increases and decreases. The results are presented in Tables 6 and 7 respectively, which contain the scores for every factor.

To summarize the main results on the factors underlying with price flexibility. We asked financial managers to choose from among four categories for each factor: unimportant (1), of minor importance (2), important (3) and very important (4). The factors are adapted from [24]. All these findings are summarized in Table 8.

To summarize the main results on the factors affecting the frequency of price changes we asked financial managers to evaluate each of factors with simple scale system 1=Yes, 2=No. The factors are adapted from [25]. These results were obtained considering both measures of the frequency of price changes and measures of the frequency of price changes conditional on the duration of price spells. All these findings are summarized in Table 9.

We asked the financial managers a question along the following lines: "If there are reasons for changing the price of your main product, which of the following factors may well prevent an immediate price adjustment?" The list following this question

Table 6: The importance of different factors driving price increases.

Item	N	Mean	Std. Deviation
Factors that drive increase price	11612	1.11	0.31
Labor costs	2400	1.05	0.21
Financial costs	709	1.40	0.49
Demand	570	1.04	0.21
Costs of raw materials	4236	1.10	0.31
Competitors' price	3697	1.10	0.31

Table 7: The importance of different factors driving price decreases.

Item	N	Mean	Std. Deviation
Factors that drive decrease price	11612	1.11	0.31
Labor costs	2425	1.04	0.21
Financial costs	820	1.35	0.49
Demand	661	1.04	0.21
Costs of raw materials	4109	1.11	0.31
Competitors' price	3593	1.11	0.31

Table 8: Factors underlying price flexibility.

Item	N	Mean	Std. Deviation
Factors underlying price flexibility	11612	1.11	0.314
Stock adjustment	1106	1.11	0.322
Physical elasticity	1076	1.11	0.313
Pricing thresholds	1071	1.10	0.31
Price means quality	1067	1.10	0.305
Physical menu cost	1062	1.11	0.319
Non-price elements	1054	1.11	0.314
Implicit contracts	1053	1.11	0.316

offers the ten above mentioned theories, expressed in simple terms, as possible explanations. The theories are adapted from previous studies [21,26]. The respondents could indicate their degree of agreement with each theory, choosing from among four categories: unimportant (1), of minor importance (2), important (3) and very important (4). Columns 1 to 9 in Table 10 present the result assigned by financial managers for the various theories.

There are numerous reasons why prices are not or only slightly changed during a certain time interval. To summarize reasons for price rigidity we asked financial managers to choose from among four categories for each item with (1) unimportant, (2) minor importance, (3) important and (4) very important. The factors are adapted from [22]. All these findings are summarized in Table 11.

Table 9: Factors affecting the probability or the frequency of price changes.

Item	N	Mean	Std. Deviation
Factors affecting the probability or the frequency of price changes	11612	1.11	0.31
Seasonality	1689	1.11	0.32
Aggregate inflation	1676	1.11	0.32
Sectoral or product-specific inflation	1716	1.11	0.31
VAT rate changes	1885	1.09	0.29
Type of outlet	1607	1.10	0.31
Attractive prices	1525	1.11	0.314
Euro cash changeover	1514	1.11	0.31

Table 10: The importance of theories explaining price stickiness.

Item	N	Mean	Std. Deviation
The importance of theories explaining price stickiness	11612	1.11	0.31
Implicit contracts	1179	1.10	0.30
Explicit contracts	1376	1.10	0.30
Cost-based pricing	1243	1.10	0.30
Co-ordination failure	1196	1.11	0.32
Judging quality by price	1162	1.10	0.31
Temporary shocks	1091	1.14	0.34
Change non-price factors	1141	1.12	0.32
Menu costs	1091	1.14	0.34
Costly information	1092	1.14	0.31
Pricing thresholds	1034	1.11	0.31

Table 11: Ranking of reasons for price rigidity (rating on a 4-point scale).

Item	N	Mean	Std. Deviation
Ranking of reasons for price rigidity	11612	1.11	0.314
Thick markets demand	1157	1.09	0.29
Fix costs/liquidity constraints	1051	1.1	0.3
Quality	1365	1.1	0.3
Thick markets supply	1229	1.1	0.3
Coordination failure	1204	1.11	0.31
Threshold pricing	1178	1.1	0.31
Temporary shock	1158	1.11	0.32
Countercyclical finance	1081	1.11	0.31
Menu cost	1130	1.13	0.34
Non-price factors	1016	1.11	0.32
Costly information	43	1	0

Exploration factor analysis using the main component analysis with a varimax rotation was applied to the market price scale for the purpose of determining which factors have a greater impact on the market price movement. Articles to analyze the factors that influence the price movement in the market have been adjusted by the research conducted by Abu Dhabi Securities Exchange (2017).

In this analysis, all Eigen value factors were extracted. To test for the suitability of factor-scale analysis, the Kaiser-Meyer-Olkin measure of sample sampling (KMO-MSA) was conducted for impact measurements of factors affecting price movement in the market in the accepted region greater than 0.5 [27]. In addition, Alpha of Cronbach was used to measure the internal consistency of the measurement scale of continuous improvement of rural management. Alpha Cronbach's results and factor analysis are presented in Table 12.

In order to test the first hypothesis, the dependent variable which is influence in change in prices and the independent variables are different factors that effect on it. The factors are adapted from [28]. The reasons why those factors are chosen are following. Interest rate (IR) is bound to be the factor affecting price fluctuations. For the demand factors, the population density (PD) is strongly correlated with the demands of housing purchasing. Gross value added (GVA) is an objective indicator reflecting citizen's payment capacity. Similarly, the average disposable income (GDHI) determines the purchasing ability [29]. We asked the respondents to indicate their degree of agreement with each factor, choosing from among four categories: unimportant (1), of minor importance (2), important (3) and very important (4). Table 13 present the result assigned by financial managers. The dependent variable is change in prices, were adapted from [30]. The influence on change in prices was measured on a simple scale system 1=Yes, 2=No.

Table 12: Analysis of factors that influence the movement of prices in the market.

Factors and articles	Load factor
Changes in price KMO=0.736	
Economic factors	0.34
Variance=2.66%, Cronbach's Alpha=0.804	
Interest Rates	1
Inflation	0.89
Currency value	0.75
Factors related to the company and its sector	0.14
Variance=2.78%, Cronbach's Alpha=0.855	
Level of demand	1
Level of Competition	0.87
Government regulations	0.74
Market testing	0.13
Competitors	0.13
Factors related to investors and stock traders in the market	0.86
Variance=2.61%, Cronbach's Alpha=0.794	
Rumors	0.74
Emotions and Personal Qualities	0.86
Brokers	0.72
Stock Exchange Speculations	0.13
Variance=1.83%, Cronbach's Alpha=0.909	
Natural disasters	1
Political crises	0.83

Reference category: Influence in change in price.

Independent variables: Influence factors.

Dependent variable: Changes in price.

To test the second hypothesis if exist relationship between price increase and the impact of factors that influence in change in prices. We used the same factors as the first hypothesis. We used the same factors as the first hypothesis.

Reference category: Influence in change in price

Independent variables: Influence factors

Dependent variable: Price increase

As dependent variable is price increase, were adopted from [31,32]. The existence of relation on change in prices is measured on a simple scale system 1=Yes, 2=No. We used linear regression to measure how a dependent variable anticipates the independent variable, the results of the regression models are indicated in Tables 13 and 14.

Hypothesis 2: There is no relationship between price increase and the impact of factors that influence in change in prices

RESULTS AND DISCUSSION

Respondents' profile

The study revealed that (87.7%) of the respondents were male, while only 12.3% were female. We have observed that males could readily be available for taking care of finance and had a wide knowledge about changes in price. The low percentage of the female participating in agribusiness activities could be attributed to the fact that being females in the study area usually involved in several other professions outside finance like doctor, engineers, teachers etc. The findings reveal the majority of farmers are aged between 26-50 years (40%), we can say that they are in their productive age, where their experience helps on managing the finance. Most of financial managers farms (39.6%) had at least Collage/Assoc. degree, we can have noted that this level of education influences financial decisions, reporting, analyzing and interpretation of financial data. (34.7%) of our respondents work on private enterprise which means that financial managers and business owners are free to make economic decisions within governmental regulations. (34.9%) of financial managers have financial experience more than 20 years, that is a very important

Table 13: Influence factors and Changes in price.

Factors	Co-efficient (Beta)	Standard error	T statistic
Interest Rate	0.003	0.003	0.372
Gross value added	0.009	0.035	0.069
Consumer price inflation	0.019	0.033	0.169
Gross disposable household income	-0.023	0.012	-0.527

Table 14: Influence factors and Price increase.

Factors	Co-efficient (Beta)	Standard error	T statistic
Interest Rate	0.006	0.012	0.152
Gross value added	0.007	0.010	0.198
Consumer price inflation	0.002	0.007	0.088
Gross disposable household income	-0.010	0.010	-0.287

factor to help to efficiently direct the flow of savings and investment in the economy in ways that facilitate the accumulation of capital and the production of goods and services Table 15.

Financial managers' perception for changes in price

Price setting rule: Table 5 summarizes the results of the surveys shows about price setting rule(1.11) that based (1.12) on regulatory agency, (1.11) market level, (1.10) direct cost-plus variable markup, (1.08) direct cost-plus fixed mark up, (1.13) consumer set, (1.17) competitor prices.

The importance of different factors driving price increases: The results in Table 6 showed that prices increase based from (1.05) labor costs, (1.40) financial costs, (1.04) demand, (1.10) costs of raw materials, (1.10) competitors' price.

The importance of different factors driving price decreases: The results in Table 7 showed that prices decrease based from (1.04) labor costs, (1.35) financial costs, (1.04) demand, (1.11) from costs of raw materials and competitors' price.

Factors underlying price flexibility: Table 8 summarizes factors that underlying are price flexibility which are: (1.11) stock adjustment, (1.11) physical elasticity, (1.10) pricing thresholds, (1.10) price means quality, (1.11) physical menu cost, (1.11) non-price elements, (1.11) implicit contracts.

Factors affecting the probability or the frequency of price changes: The results in Table 9 showed factors affecting the probability or the frequency of price changes which are: (1.11) seasonality, (1.11) aggregate inflation, (1.11) sectoral or product-specific inflation, (1.09) VAT rate changes, (1.10) type of outlet, (1.11) attractive prices, (1.11) euro cash changeover.

The importance of theories explaining price stickiness: The results in Table 10 showed theories explaining price stickiness which are:

(1.10) implicit contracts, (1.10) explicit contracts, (1.10) cos t-bas ed pricing, (1.10) co-ordination failure, (1.10) judging quality by price, (1.14) temporary shocks, (1.12) change non-price factors, (1.14) menu costs and costly information, (1.11) pricing thresholds.

Ranking of reasons for price rigidity

The results in Table 11 showed reasons for price rigidity which are: (1.09) thick markets demand, (1.10) fix costs/liquidity constraints, (1.10) quality, (1.10) thick markets supply, (1.11) coordination failure, (1.10) threshold pricing, (1.11) temporary shock, (1.11) countercyclical finance, (1.13) menu cost, (1.11) non-price factors, (1.00) costly information.

RESULTS OF FACTOR ANALYSIS AND REGRESSION

Four types of factors that together explained the impact on the movement of prices on the market are shown in Table 12. The first factors were referred to as economic factors and charged factors represent aspects that affect the price movement in the market. These factors have an Alpha value of 0.804 with an explanatory Variance of 2.66%. The second factors, referred to as factors related to the company and its sector with an Explanatory Variance of about 2.78% contains four factors and has an Alpha value of 0.855. Third factors were referred to as factors related to investors and stock market traders with an explanation of about 2.61% and Alpha 0.794. Fourth Factors referred to as Stock Exchange Speculations and have a variance of 1.83% and an Alpha value of 0.909. The interest rate with a load factor has a contribution of 1,000 to the price movement in the market, the demand level with a load factor has a contribution of 1,000 to the market price movement, natural disasters with a load factor has a contribution of 1,000 to the movement than the price on the market. Most other factors did not make an adequate contribution because their factor loads were less than 0.5.

The regression analyses from Table 13 shows that different factors have different influence in change in prices which means depend of the factor and their impact. The result implies that the change in prices may be impacted by different factors which varies according to their influence. For instance, gross value added and price inflation have highest average influence in change in prices, followed by Interest Rate and Gross disposable household income.

Table 14 shows that influence factors like interest rate, gross value added, consumer price inflation, gross disposable household income has a positive impact on price increase. The result implies that price increase differs from the way the influence factors effect on them. For example, price increase affect more from consumer price inflation, followed by interest rate, gross value added, gross disposable household income.

DISCUSSION

The results of this study showed that price setting rule that based are based on market level. This may result in strategy in framework for evaluating and optimizing performance of a unit. Depending on a business the unit could be a 'market', a customer segment or a product.

Moreover, the results showed that the most important factor that impact price increases are labor costs, which means that all wages paid to employees, as well as the cost of employee benefits and

Table 15: Respondents' profile (n=11621).

Demographic Variables	Frequency	Percentage (%)	Average
Gender			
Male	10178	87.7	
Female	1434	12.3	
Age			35
Below 25 years	4418	38.0	
q26-49 years	4647	40.0	
More than 50 years	2547	21.9	
Level of education			
HS Graduate or Less	4209	36.2	
Some College/Assoc. Degree	4603	39.6	
College Graduate	2800	24.1	
Type of business you work			
Public enterprise	2976	25.6	
Private Enterprise	4035	34.7	
Production enterprise	2266	19.5	
Commercial Enterprise	2344	20.2	
Financial experience			15
1-10 years	2959	25.5	
11-20 years	4048	34.9	
21-30 years	2277	19.6	
More than 30 years	2328	20.0	

payroll taxes paid by an employer has a significant effect on price increase. But the most important factor that impact price decrease are financial costs and labor costs which means that the sum of all costs of finances, interest, and other charges involved in the borrowing of money to build or purchase assets decrease the price.

Moreover, the results showed that physical elasticity effect on price flexibility that ensures is a measure of responsiveness of the quantity demanded to a percentage change in the price of the item. There are other elasticities in economics and none of them is a physical concept either. The most important factor that affects the probability or the frequency of price changes is VAT rate changes. As the value added tax is a general, assessed on the value added to goods and services. Which means that goods from Kosovo, which are sold for export or services and which are sold to customers abroad are normally not subject to VAT. Conversely the good that are imported in EU are taxed to keep the system fair for producers.

The importance of theories explaining price stickiness is explicit contracts which mean that firms have contractual arrangements with their customers, which may be in written form or orally agreed and in which they guarantee to offer a certain product at a specific price. An explanation why firms engage in such agreements is that it is in their interest to build up long-run customer relationships in order to stabilize their future sales. The main reason for price rigidity is quality where the price of a good does not change immediately or readily to the new market-clearing price when there are shifts in the demand and supply curve.

We also compared the impact of factors that effect on price on change in prices and the relation of these factors with change in prices. The result implies that the change in prices may be impacted by different factors which vary according to their influence. Also, it showed that there is no significant relationship between price increase and the impact of factors that influence in change in prices.

CONCLUSIONS AND RECOMMENDATIONS

The objective of this research is to discover that what causes large price changes on a post war country as the Republic of Kosovo. The results showed that price setting rule that based are based on market level. Most important factor that impact on price increases are labor costs, this factor has an significant role because when a Kosovo manufacturer wants to create or to sell goods, they should takes in account the costs of labor, into direct and indirect (overhead) costs, and is very important for their incomes also can be shifted directly toward the consumer. If demand for a product declines, or if competition forces the business to cut prices, the company must reduce the cost of labor to remain profitable. Since financial costs is the cost and interest and other charges involved in the borrowing of money to build or purchase assets and the cost of labor is the sum of all wages paid to employees, as well as the cost of employee benefits and payroll taxes paid by an employer both those two factors have an important affected on price decrease.

Furthermore, the flexibility in price depends from physical elasticity, and price changes are affected from VAT rate changes. The theories that explaining price stickiness is explicit contracts, the reason for price rigidity is quality. Moreover, the change in prices may be impacted by different factors which vary according to their influence. For instance, gross value added and price inflation have highest average influence in change in prices, followed by interest rate and gross disposable household income.

The price increase differs from the way the influence factors effect on them. For example, price increase affect more from consumer price inflation, followed by interest rate, gross value added, gross disposable household income.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Whilst this study provides an important insight into the study of causes of price changes on a post war country as the Republic of Kosovo, there are some limitations that have to be taken into consideration. One of them is the limited number of items used to make functional the impact of factors on price changes, while can be developed other research with others factors that related to changes in price. The next survey should look in more detail changes in price including articles on cost product, utility and demand, extent of competition in the market, government and legal regulations, pricing objectives, marketing methods. This is expected to increase a broader understanding of variables affecting price changes as well as a subsequent transition phase such as Kosovo and can be used as a basis for a more complete understanding of factors affecting change in price and serve as a guide to the factors that have a major impact on price changes.

REFERENCES

1. Mónica D, Dias D, Pedro DN. Stylized Features of Price-Setting Behavior in Portugal; 1992-2001. *European Central Bank* 332:35-69.
2. Benigno P. Optimal monetary policy in a currency area. *J Int Econ. Working Paper, Princeton University.*1999; 89-179.
3. Christiano LJ, Eichenbaum M, Evans CL. Monetary policy shocks: what have we learned and to what end? by Taylor, J.B., Woodford, Elsevier Science B.V 1999;1:65-148.
4. Shocks CJH. *Carnegie-Rochester. Conference Series on Public Policy.* 1994;41:295-364.
5. Friedman M. The optimum quantity of money. *J of money credit and banking.* 1969;1:4-10.
6. Goodfriend M, King RG. The new Keynesian neoclassical synthesis and the role of monetary policy. In: Bernanke B Rotemberg J. *NBER Macroeconomics Annual.* MIT Press, Cambridge, 1997;233-283.
7. Ohanian L, Stockman A, Kilian L. The effects of real and monetary shocks in a business cycle model with some sticky prices. *J Money, Credit, Banking.* 1995; 27(4):34-1209.
8. Taylor John B. *Aggregate Dynamics and Staggered Contracts.* J Political Econ. 1980; 38:1-22.
9. Daniel L, Dutta SH, Bergen M. Heterogeneity in Price Rigidity: Evidence from a Case Study Using Microlevel Data. *J Money Credit Banking.* 2002; 34:197-230.
10. Crouch RL. The volume of transactions and price changes on the New York Stock Exchange. *J Fin Analysts.* 1978; 26:104-109.
11. Geweke JB. Testing the exogeneity specification in the complete dynamic simultaneous equations model. *J Econometrics.* 1978; 7:85-163.
12. Gabaix X, Gopikrishnan P, Plerou V, Stanley HE. A theory for power-law distributions in financial market fluctuations. *Nature Publishing Group.* 2003; 423:267-270.
13. Kosovo Agency of Statistics, *Harmonized Consumer Price Index May 2019.* Republic of Kosovo, Office of the Prime Minister 2019;5-13.
14. *Trading economics Kosovo - Economic Indicators.* Retrieved from 2019.

15. www.tradingeconomics.com/
16. Lillo F, Farmer JD. The key role of liquidity fluctuations in determining large price change World Scientific Publishing Company. 2005;25-79.
17. Brogaard J, Carrion A, Moyaert Th, Riordan R, Shkilko A, Sokolov K. High-Frequency Trading and Extreme Price Movements. 2015.
18. Nassir MS. AM Price Changes and Trading Volume Relationship: Some Preliminary Evidence from the Kuala Lumpur Stock Exchange. University Pertanian Malaysia Press. 1995;70-83.
19. Reyes CM, Sobrevinas AB, Bancolita J, Jesus JD. Analysis of the Impact of Changes in the Prices of Rice and Fuel on Poverty in the Philippines De La Salle University, Angelo King Institute 2012;50-62.
20. Asyngier R. Does the change in the company's name affect the share price? The case study of the Polish capital market. J Econ Management. 2018;63-89.
21. Miečinskienė A, Lapinskaitė I. The research on the impact of the changes of commodity price level in the world commodity exchanges on variation of general price level. Vilnius Gediminas Technical University. Faculty Bus Management. 2014;7(4):71-88.
22. Hall S, Walsh M, Yates A. How do UK companies set price? Bank of England. Threadneedle street London, EC2R 8AH. 1997;36-69.
23. Lünnemann P, Mathä TY. How Persistent is Disaggregated Inflation? An Analysis Across EU 15 countries and HICP sub-indices. ECB Working Paper No 415. 2004;13-40.
24. Mahabir R, Primus K, Cox D, Jagessar V, Neptune C. Price setting in Trinidad and Tobago: Evidence from survey data J Bus Fin & Econ Emerging Economies. 2013;8(1):58-90.
25. Fabiani S, Druant M, Hernando I, Kwopil C, Landau B, Loupias C, et al. The pricing behaviour of firms in the euro area new survey evidence. Eurosystem inflation persistence network. working paper series no 535. 2005;25-50.
26. Dhyne E, Álvarez LJ, Dias D, Hoffmann J, Jonker N, Lünnemann P, et al. Price setting in the euro area: some stylized facts from individual consumer price data. Working paper 524, Social Science Research Network Electronic Library. 2005;34-68.
27. Apel M, Friberg R, Hallsten K. Microfoundations of macroeconomic price adjustment: survey evidence from Swedish firms. J Money Credit Banking. 2005;37(2):313-338.
28. Nunnally JC. Psychometric theory (2nd edn), McGraw-Hill New York. 1978;2-79.
29. Gu Y. What are the most important factors that influence the changes in London Real Estate Prices? How to quantify them? The Bartlett Centre for Advanced Spatial Analysis. J Econ Bibliography. 2016;1-6.
30. Mishkin FS. Housing and the monetary transmission mechanism. NBER Working Paper No 13518, 2007.
31. Hauksdóttir P. The Effects of Changes in Prices and Income on Car and Fuel Demand in Iceland. University of Iceland Reykjavik. 2010;67-158.
32. Sanni MI. The Implications of Price Changes on Petroleum Products Distribution in Gwagwalada Abuja, Nigeria. J Energy Technologies Policy. 2014;4(7):24-69.
33. Griliches Z, Intriligator M. Handbook of Econometrics. (1st edn), North Holland. 1984; 2:100-123.