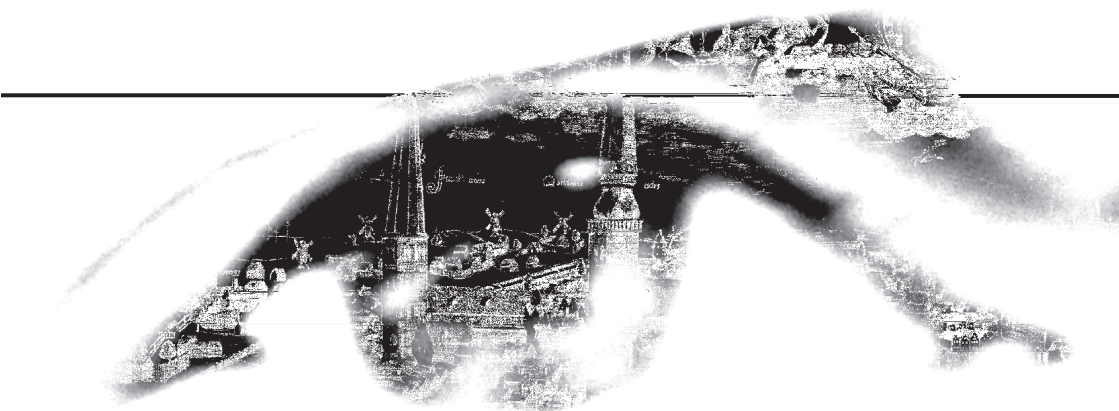


HUMANITIES AND SOCIAL SCIENCES

LATVIA



Volume 28, Issue 2
(Autumn-Winter 2020)



**UNIVERSITY
OF LATVIA**

HUMANITIES AND SOCIAL SCIENCES LATVIA

Volume 28, Issue 2
(Autumn-Winter 2020)

University of Latvia Press

Journal **Humanities and Social Sciences: Latvia**
Volume 28, Issue 2 (Autumn-Winter 2020)

Founded by the University of Latvia

Published in collaboration with:

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Latvian Academy of Sciences
Latvian Association of Scientists
Latvian Writers Union
World Federation of Free Latvians

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Manuscripts are accepted only in English

Publisher: University of Latvia Press

Aspazijas 5–132, Rīga, LV-1050, Latvia

www.apgads.lu.lv

Printed by SIA “Drukātava”

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ISSN 1022-4483

<https://doi.org/10.22364/hssl.28.2>

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FROM THE EDITOR

Dear Reader,

This is the second issue for 2020 and we expect to be able to publish the next issue in spring-summer 2021.

The authors are both PhD students and established academics. The articles are a heterogeneous set and cover a number of fields in the humanities and social sciences such as management, E-economics, economic history, and education. In this issue, we have articles by authors not only from Latvia, but also from Germany, Nigeria and Ukraine.

A reminder for past and future authors that the journal can be found in the EBSCO Sociology Source Ultimate database. It would be useful for you if you ensure that your university library subscribes to this particular EBSCO database.

We hope you enjoy this issue and are looking forward to the next issue.

Best wishes

Viesturs Pauls Karnups
General Editor

GLOBAL LEADERSHIP AND CHANGE MANAGEMENT ON THE EXAMPLE OF THE GERMAN AUTOMOTIVE INDUSTRY

Markus Filkorn

Dipl. Wirtschaftsinformatiker, MBA

Abstract

Change Management is a term which is omnipresent in nowadays discussions of all areas, be it politically or economically motivated. This article discusses different scientific process theories of Change Management, such as *Teleological theories*, *Dialectical theories*, *Life cycle theories* and *Evolutionary theories*, that all regard change as involving a number of events, decisions and actions that are connected in some sort of sequences, but distinguish themselves when understanding change as a structured process. Moreover, the linkage of the interconnected fields of Change Management and Strategy Management are seized. Lastly, the importance and different role of Leadership and Management are discussed before reviewing the historic evolution of the German automotive industry, as well as its current challenges. It is concluded why Change Management in this industry is nowadays more important than ever due to fierce global competition, regulatory requirements and different technological developments all ending up in distinct client requirements and expectations.

Keywords: Germany, Change Management, Leadership, Management, Organisational Change

Introduction

The goal of this article is to introduce different theories of Change Management and related Leadership, as well as to discuss the change that the automotive industry experiences both from a historical, as well as a current view. Prognoses for forthcoming changes of the automotive industry are illustrated and lastly an analysis and interpretation of the automotive industry in the context of Change Management is elaborated on.

Change Management and Leadership

“The only constant is change” is an idiomatic expression often used by humans of all kinds and social classes. Already Charles Darwin formulated that “it is not the strongest of the species that survives, nor

the most intelligent, but the one most adaptable to change.”¹ Those two statements demonstrate that “change” has obviously a special meaning for the species living on earth and following for human beings and their social and organisational structures. Organisations, regardless if their aim is to achieve profit or not, are subject to constant change. As our world is steadily becoming “faster” due to technological advancement and the ability to process information constantly in a higher frequency, changes in organisations occur permanently and these changes need to be managed.

*Defining Change Management*²

Change Management deals with techniques of optimally controlling change processes within organisations from a certain starting point towards a defined goal. While starting point and goal definition are provided by means and methods of a strategy process, Change Management primarily focusses on the way to achieve the defined goal. Strategic Management and Change Management can therefore be seen as two interacting disciplines. While Strategic Management is identifying the need to change and adapt to the organisation’s external environment, Change Management ensures that this adaptation will be successful by focusing on the organisation’s internal structure and processes. Change Management primarily focusses on the following three dimensions:

- Individuals
- Organisational/enterprise structures
- Organisational/enterprise culture

Individuals represent the smallest social elements of an organisation. Without its employees, organisations cannot change. With focus on individuals, on the one hand, Change Management has to foster the development of employees’ additional skills and capabilities needed for the targeted new situation; but on the other hand also to evoke a positive attitude of all stakeholders towards the defined goal and the undergoing change needed.

Organisational/enterprise structures encompass the formal structure and processes as well as strategies and resources. Conceptual changes to organisational/enterprise structure seem easy, however it has to be taken into account that there are evolutionary grown informal structures behind, that are typically reluctant to changes and therefore need to be certainly considered and addressed.

¹ de Stricker (2014), p. 141

² Lauer (2014), pp. 3–8

Organisational/enterprise culture is reflected by informal structures that are responsible for general attitudes, norms and social interactions within an organisation. Culture is independent from each individual's single behaviour but the sum of all individuals' behaviour is defining the organisational/enterprise culture. Change Management without addressing cultural aspects is most likely leading to enormous problems, not to say leading to the failure of a planned change endeavour. Peter Drucker once underlined the importance of considering culture by his famous saying "culture eats strategy for breakfast" and "this may thwart any change initiative"³

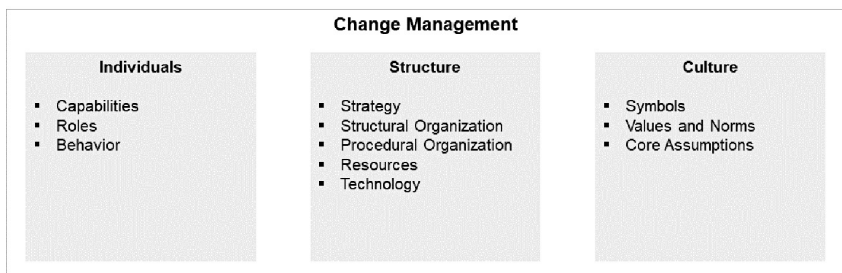


Figure 1: Change Management dimensions

Source: Lauer (2014), p. 8

Process Theories within Change Management

There are different views on Change Management; one important view on Change Management is from a process perspective. While there are over 20 different process theories, further analysis lead to four ideal types:⁴

- *Teleological theories*: regard change as "an unfolding cycle of goal formulation, implementation, evaluation and learning". Learning is seen of high importance as it "can lead to the modification of goals or the actions taken to achieve them".
- *Dialectical theories*: "focus on conflicting goals between different interest groups and explain stability and change in terms of confrontation and the balance of power between opposing entities".
- *Life cycle theories*: regard that change "progresses through a necessary sequence of stages that are cumulative, in the sense that each stage contributes a piece to the final outcome, and related – each stage is a necessary precursor for the next".

³ Schramm (2014), p. 8

⁴ Hayes (2014), pp. 5–8

- *Evolutionary theories*: assume that change “proceeds through a continuous cycle of variation, selection and retention.” While variations just happen, they “are selected on the basis of best fit with available resources and environmental demands. Retention is the perpetuation and maintenance of the organisational form that arise from these variations”.

All theories have in common that they view change “as involving a number of events, decisions and actions that are connected in some sort of sequence”. However, they differ in terms of the “degree to which they present change as following certain essential stages and the extent to which the direction of change is constructed or predetermined”.

Very much focussing on the application of Change Management methods, Dr. John P. Kotter, who is seen as a pioneer in Change Management, defined an eight-step process for leading change that consist of the following stages:⁵

1. *Establishing a sense of urgency*
 - Examining the market and competitive realities
 - Identifying and discussing (potential) crises or major opportunities
2. *Creating the guiding coalition*
 - Putting together a group with enough power to lead the change
 - Getting the group to work together like a team
3. *Developing a vision and strategy*
 - Creating a vision to help direct the change effort
 - Developing strategies for achieving the vision
4. *Communicating the change vision*
 - Using every vehicle possible to constantly communicate the new vision and strategies
 - Having the guiding coalition role model the behaviour expected of employees
5. *Empowering employees for broad based action*
 - Getting rid of obstacles
 - Changing systems or structures that undermine the change vision
 - Encouraging risk taking and non-traditional ideas, activities, and actions
6. *Generating short-term wins*
 - Planning for visible improvements in performance
 - Creating “wins”
 - Visibly recognising and rewarding people who made wins possible

⁵ Kotter (1996), pp. 35–158

7. *Consolidating gains and producing more change*
 - Using increased credibility to change all systems, structures and policies that don't fit together and don't fit the transformation vision
 - Hiring, promoting and developing people who can implement the change vision
 - Reinvigorating the process with new projects, themes and change agents
8. *Anchoring new approaches in the culture*
 - Creating better performance through customer and productivity-oriented behaviour, more and better leadership, and more effective management
 - Articulating the connection between new behaviour and organisation success
 - Developing means to ensure leadership development and succession

Stages one to four help to “defrost a hardened status quo”. Stages five to seven introduce what needs to be changed in terms of new practices, while stage eight injects the change in the organisational culture with the goal that it will be maintained and does not lose any momentum over time. Kotter stresses that all stages are important to pass through and that no stage may be skipped, which often happens when change endeavours are under pressure or in a hurry.⁶

While following through the single stages, Hayes stresses the impact of sequences on the outcome by elaborating about “Reactive” and “Self-reinforcing” sequences, as well as “Path Dependence”. All three patterns deal with the alternating number of events, decisions and actions that are connected in a sequence. Thereby each event is influenced by a former event/action/decision and influences subsequent events/actions/decisions. This chain of interacting events/actions/decisions is very much dependent on how others response as well as the experience of decision-makers and stakeholders.⁷

Reactive Sequences⁸

Reactive sequences are especially supported by Dialectical theories and postulate that the response of others to certain events/actions/decisions will have an influence on how decision-makers will decide in the future. This entail the risk that future decision may lead to the circumstance that

⁶ Kotter (1996), p. 22

⁷ Hayes (2014), p. 8

⁸ Ibid.

an originally defined goal will vanish from sight and – often unconsciously – a new goal sneaks in. Such situations often arise when one party challenges the attempt of another party to secure a particular change. Figure 2 illustrates Reactive Sequences. The case could be that a Leader implements a decision (A) in order to achieve a particular outcome (F). The decision (A) leads to responses (events B and C) that influence the leader’s initial intention in a negative way. In this example later, the leader realises the negative impact of decision (C) and takes a corrective action in order to refocus on the original intended goal (F).

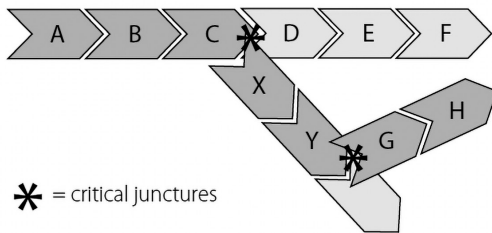


Figure 2: Example of a Reactive Sequence

Source: Hayes (2014), p. 8

Reactive Sequences demonstrate that it is not always possible to satisfy the interests of all stakeholder (e.g. bosses, peers, subordinates, customers, suppliers) and that a formulated vision and the path to that vision will end up in conflicts of interest. This highlights the importance of acting in ways that will align involved parties in order that they truly support it.

*Self-reinforcing Sequences*⁹

Self-reinforcing Sequences imply that actions or decisions that produces positive feedback reinforces earlier events and support the direction of change. This reinforcement encourages a further movement into the same direction of change without proper reflection and eventually follow a path that will deliver negative outcomes. The following three drivers often support self-reinforcing Sequences:

- Increasing returns
- Psychological commitment to past decisions
- Cognitive biases

⁹ Hayes (2014), p. 10

Path Dependence¹⁰

Path Dependence refers to a constraining process that begins with a critical event that “squeeze out alternatives and limit a change manager’s scope for action” Path Dependence follows a three-phase process:

- *Phase I – Preformation:* in this phase only few constraints limit the change managers’ freedom to act. However, one or more decision or actions trigger a Self-reinforcing Sequence and limit the change managers’ freedom in the next phase
- *Phase II – Path formation:* in this phase Self-reinforcing Sequences “lead to the development of a pattern of events, decisions and actions that begin to dominate and divert change managers’ attention away from alternative ways forward”. This narrows from choosing alternative options and makes it progressively difficult for change managers to change course.
- *Phase III – Lock-in:* this phase is characterised by a “further narrowing of options and the process becomes locked into a particular path”. At that stage leaders lose the capability to “adapt to new circumstances or better alternatives” which may make them dysfunctional in their capabilities to lead the change successfully

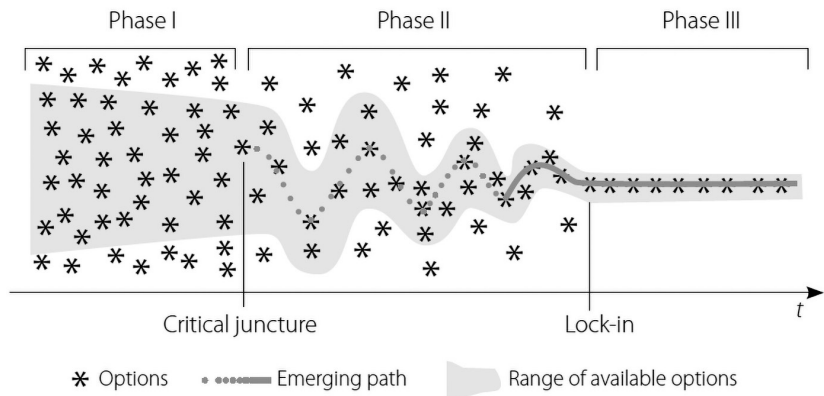


Figure 3: The three phases of Path Dependence

Source: Hayes (2014), p. 15

¹⁰ Hayes (2014), pp. 14–15

The role of Leadership within Change Management

Kotter stipulates that Leadership play a crucial role within the process of Change and strongly distinguishes between Leadership and Management.

Leadership is all about establishing direction, aligning people, as well as motivating and inspiring them. Management focuses on planning and budgeting in terms of establishing detailed steps and timelines in order to reach a set goal as well as organising, staffing, controlling and operational problem solving.¹¹

Management therefore produces “a degree of predictability and order and has the potential to consistently produce short-term results” while leadership “produces change, often to a dramatic degree”, e.g. by new products highly relevant for customers, new approaches that help to make a firm much more competitive.¹²

Kotter stresses that both functions Leadership and Management are needed and of high importance. There should neither be an absence of any of those two.¹³

However, Kotter also stipulates that for a successful transformation Leadership is more important than Management, saying that it is about 70 to 90 percent Leadership and only 10 to 30 percent Management that successfully drives change. This is often not accordingly reflected by today’s organisations that do not have much leadership in place and focus too much on managing change. Moreover, Kotter identifies that it is the same situation on universities. Students are taught to be great Managers, however there is only little taught about Leadership. The reason may be that Management is taught easier than Leadership, but also as more Managers were typically needed than Leaders. “For every entrepreneur or business builder who was a Leader, we needed hundreds of Managers to run their ever growing enterprises”.¹⁴

The German Automotive Industry

Historic Development

The pre-conditions for nowadays car industry came into being in 1885 when Wilhelm Maybach and Gottfried Daimler installed a small combustion engine in a wooden bicycle and one year later into a four-wheeled coach. At the same time, only a short distance away, Karl Friedrich Benz created

¹¹ Kotter (1996), p. 26

¹² Ibid.

¹³ Ibid., pp. 57–61

¹⁴ Ibid., pp. 26–27

a vehicle with a gasoline engine that in contrast to Daimler and Maybach formed a unified whole in terms of chassis and engine and obtained a road legal accreditation on January 29, 1886. This event marked the birth of the automobile.¹⁵

Between 1885 and 1908, interestingly not in Germany, but in France, the automobile found rapid spread due to good infrastructure and cooperation between industry, customers and purchasing power.¹⁶ However, crucial for the rapid spread were not technical or economic reasons, but a different mindset between the French and the German culture. While the usage of automobiles in France were welcomed with open arms and supported by the government, the Germans at first had a critical attitude towards the automobile, because of noise, stench and danger of accidents. After 1900 the social acceptance towards the automobile rose in Germany and more and more manufacturers emerged.¹⁷ At the beginning, the German manufacturers were very much focused on an artisan-like production, that came along with high quality. A volume production was widely rejected due to the German sense of artisanship.¹⁸

In contrast to the Germans, the Americans regarded the automobile not as a technical challenge, but more as a mean to “make money”. Due to the high demand, Henry Ford realised already in an early stage, that the production and the sales of automobiles is less a technical, but rather an economic challenge. A milestone to satisfy the high demand was his invention of the assembly line in 1913. This enabled him not only to produce high quantities, but also to produce vehicles at a lower price, which made the automobile also affordable for a broader spending group. At this time the US was the biggest producer of automobiles in terms of production quantities and sales.¹⁹ The mass production in the US forced German car manufacturers to rethink their attitude towards artisanship and made them also introduce the mass production system. The first car produced on an assembly line was sold by the German car manufacturer Opel in 1924. This marked the milestone for European production of less expensive automobiles.²⁰

Nevertheless, until 1933 the German automotive industry was rather small with many small manufacturers and an insufficient transport infrastructure. Only after Hitler’s rise of power, the automotive industry

¹⁵ Eckermann (1981), pp. 42–43

¹⁶ Haubner (1998), p. 44

¹⁷ *Ibid.*, p. 65

¹⁸ Eckermann (1981), p. 94

¹⁹ *Ibid.*, pp. 66–89

²⁰ *Ibid.*, p. 99

moved into the political focus in Germany, with the aim to mass motorise the country. Many infrastructure projects started and a state-owned automotive enterprise was founded with the mission to build affordable cars for everyone.²¹ The aim to build 500 000 civil cars per year, as planned by Ferdinand Porsche in 1934, was never reached due to the effects of World War II. Instead, only a few hundred civilian cars were produced in the new Volkswagen factory in Fallersleben. Nevertheless, after World War II, German car makers quickly went back into production and in 1953, almost 500 000 civilian cars were manufactured and sold. Between 1952 and 1959 a serious consolidation of the automotive industry took place.²²

Eventually, mass motorisation in Germany was reached in the 1960s. Due to rapid economic growth, German purchasing power increased and the total number of automobiles tripled within 10 years, from 1960 to 1970, from 4.5 million cars to 13.9 million cars.²³

Current State

Export

In 1957 out of 1 040 188 in Germany produced vehicles, 502 214 vehicles were exported which reflects an export quota of 48.28%. In 2018, 5 120 409 vehicles were locally produced and 3 992 724 cars were exported to foreign countries. That reflects an export quota of 78%.²⁴ In 2018, German cars had a total share of 17.5% on the overall German export market. Therefore, cars are the most important export good for the German economy.²⁵

Research and Development

Research and development (R&D) are one of the leading strengths of the German car makers.²⁶ Due to the shift from a seller's market to a buyer's market starting at the end of the 1960s, car makers can only retain or enhance their market position through continuous product innovation. Over the last ten years, this situation led to the fact that German car makers' contribution to the overall German R&D expenditures rose from 17% to more than 30%.²⁷ R&D expenditures rose in the last years compared to other sectors above average. According to the European Commission,

²¹ Eckermann (1981), p. 127

²² Ibid., p. 159

²³ Kuhm (1995), p. 159

²⁴ VDA – Verband der deutschen Automobilindustrie (2019)

²⁵ Statistisches Bundesamt (2019)

²⁶ Schade et al. (2012), p. 36

²⁷ Roth (2012), p. 53

worldwide R&D expenditures increased by 7% in 2016 to 40.2 billion Euro. According to that, German car makers and suppliers contribute more than one third to the global R&D expenditures and rank on top, even before Japan and the US.

The main R&D focus lies currently on the optimisation of the combustion engine, connected and automated driving, as well as the development of alternative power trains (e.g. the electrification of cars and further development of fuel cells).²⁸

According to the “Verband Deutscher Automobilindustrie” (VDA), German car makers follow the goal to set trends by innovations, to be the long-term leader in the automotive sector that also includes actively designing the technological paradigm shift.²⁹ That this is not only an ambition but currently still the reality, which is proved by many research studies. The study “Automotive Innovation” of the Center of Automotive Management confirms regularly that almost the half of the worldwide product innovations still comes from the German automotive sector.

Changes

Today, more than 130 years since that first automobile was designed, change and innovation drivers are stronger than ever. Scarcer resources, regulatory requirements, as well as drastically changing client demands require the automotive sector to rethink its products and views on mobility. In this section, those changes will be analysed under the viewpoint of Client Structure and Behaviour, Technology, as well as Regulatory Requirements.

Client Structure and Behaviour

Success of innovative products is mainly dependent on meeting the changing demands of incumbent and future customers. Changing social structures due to demographic changes, growth or decline of income and changing values have a huge influence on meeting those changing demands.³⁰ Changes in customers’ behaviour and structure need therefore to be strongly focused when developing target group oriented automobiles.³¹ In the last years customer demands on automobiles have extremely changed in terms of diversity.³² This is caused by a more and more flexible lifestyle of individuals in the western society and their pursuit for self-actualisation and change. In those customers’ view, an automobile

²⁸ VDA – Verband der deutschen Automobilindustrie (2018), p. 16

²⁹ VDA – Verband der deutschen Automobilindustrie (2010), p. 17

³⁰ Roth (2012), p. 78

³¹ Wallentowitz (2009), p. 14

³² Reichhuber (2010), p. 48

is not only a vehicle that has to satisfy mobility demands but also needs to support their respective expression of lifestyle.³³ Consequently, the buying behaviour of customers in the automotive sector becomes more and more unpredictable with changing sensitivity for price and quality levels.

Technology

Not only changing customer expectations, but also the advancements in product development, as well as new manufacturing techniques that allow building automobiles far beyond former technical dimensions lead to a high product diversity. This again spurs higher customer expectations and accelerates the frequency of technology cycles. Today the innovation cycle in the automotive industry has been reduced to about three years until an innovation fully penetrates the market. In comparison, former innovations like the ABS system took twenty years or the Airbag took ten years until they fully penetrated the automobile market. Moreover, mass customisation is not anymore a buzzword, but needs to be offered to customers. The evaluation and selection of automobiles got more complicated. Modern information and communication systems, design differentiation as well as a variety of assistant systems are very important criteria for selection.³⁴

Regulatory Requirements

Innovations in the automotive sector and its dynamics are highly influenced by politics and new laws and regulations. Those are typically linked to climate and environmental goals, demanding new automobiles to reduce their CO₂ emissions.³⁵ In Europe these laws are made by the European Commission (EU), which has the goal to reduce CO₂ in the transport sector by 60% until 2050, compared to 1990. This requires the automotive sector to not only increase the speed of innovation in order to bring new forms of propulsion (e.g. electric engines and fuel cells) to the market faster, but also to develop new business models that rethink our view on mobility (e.g. car sharing). This leads to the circumstance that partnerships between companies becoming more and more important and have to be intensified in order to be successful. Especially partnerships between “traditional” automotive companies and new tech-firms come into being, where different skills and capabilities are joining forces.³⁶

³³ Diez (2006), pp. 45–50

³⁴ Reichhuber (2010), pp. 49–50

³⁵ Roth (2012), p. 79

³⁶ Schade (2012), p. 41

Conclusion

Looking back in history demonstrates that the automotive sector was already from its emergence a sector subject to strong forces of innovation and change, influenced by politics, technology and customers. When looking on the current changes that can already be foreseen in the automotive sector, the need for change and innovation will also not slow down, but rather accelerate. Speed and frequency that requires changes and innovations has increased drastically compared to former times. This may not be a problem from a technological perspective – due to technological aids the increased pace can be managed – however there may be limitations from a human perspective, as every change needs to be implemented to an organisation and requires an altered mindset by customers, employees and any other stakeholders.

With reference to the three Change Management Dimensions “Individuals”, “Structure” and “Culture” the following recommendations are given:

The automotive sector needs to think how to restructure its research and development organisation. While R&D departments currently follow a rather strict waterfall approach, a more agile approach may be the answer to the high frequency of innovations expected by customers and regulators. As future innovations will be highly driven by software that controls the car and interacts with the passengers, iteratively and incrementally development and release cycles also allow, that customer experience and product improvements can happen on a very high frequency, giving the customer multiple – daily – chances to “re-experience” the bought product again and again. This may also lead to a higher customer loyalty, as the customer may install personal “app-like” solutions on the car platform, similar to that what we already experience from the smartphone market and that hinders the customer from migrating away from a certain platform (brand). Car makers on the other hand can build new business models on that platform idea and generate additional revenue streams that secure or even increase revenue, even in a more competitive environment that they already facing today. This new business models can also help to support the regulators’ requirements in terms of climate and environmental protection. Smart software and new business models may foster the idea of sharing, meaning that not everybody possess a car by its own. This helps to save production resources and energy consumption. E.g. there are also concepts for solutions that allow passengers who are heading for the same direction to pool for joint rides.

Such new concepts will not only have an enormous effect from a structural perspective. They cause higher focus on each individual: from a customer’s side that he or she gets his or her demands satisfied much quicker

and from an employee's/worker's side that he or she experience a very new way of working with much more freedom and higher decision-making power. Lastly, it will cause an enormous change in culture, as the viewpoint on the product car, its way of usage, its components and way of production will very much be different from today. So drastically different that it will have the power to change our lifestyle and society tremendously. Therefore, German car makers need to focus on all three dimension – individuals, structure and culture – carefully to succeed in this change process on the long run. This needs to be framed and supported by skilled leaders that have the capability to align the perspective of new customer structure and behaviour, technological expertise, as well as accommodate for regulatory requirements.

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LATVIA-MANDATED PALESTINE ECONOMIC RELATIONS 1920–1940

Viesturs Pauls Karnups

Dr. oec.

Abstract

This paper provides an overview of Latvian-Mandated Palestine economic relations in the interwar period. In the interwar period Latvian and Mandated Palestine economic relations were mainly confined to foreign trade. Latvia's foreign trade in relation to Mandated Palestine was more or less regulated by Latvia's 1923 treaty with Great Britain. Latvia's main imports from Mandated Palestine in the interwar period were fruits (including oranges, lemons, grapes, figs, pears, etc.), tobacco, and olive oil, whilst Latvia's main exports to Mandated Palestine were fish and fish conserves (including "Sprotes"), timber and timber products, paper and paper products, plywood, butter, and wooden nails and pins for footwear. In general, despite a growth in trade in the 1930s, trade and thus economic relations were of marginal significance to both countries in the interwar period.

Keywords: Latvia, Mandated Palestine, Interwar, Trade, Import, Export

Introduction

With the Balfour Declaration (1917), the British government committed itself to a "national home" for the Jewish people in Palestine. Before the British occupation in October 1918, Palestine was part of Ottoman Syria. Britain was granted a Mandate for Palestine on 25 April 1920 at the San Remo Conference, and, on 24 July 1922, this mandate was approved by the League of Nations. The final borders of Mandated Palestine were set in late 1922, when Trans-Jordan was separated from it.¹ The Balfour Declaration was incorporated into the preamble and second article of the Mandate for Palestine. Britain thus had a "dual obligation" towards both Arabs and Jews.

An interesting side light to the Balfour Declaration of 2 November 1917, was that in the wake of this declaration Imperial Germany created "Pro Palestine, German Committee for the Sponsoring of Jewish Palestine Settlement" in April 1918. A member of the committee was the Latvian

¹ Metzger, J. (1998), p. 3.

economics professor, Kārlis Balodis.² As a member of this committee, he wrote a pamphlet “Palestine as a Jewish settlement area”.³ In the pamphlet he suggested that with irrigation and modern agricultural machinery the estates in Palestine would have no problems supporting a population of six million inhabitants.⁴ He believed that Palestine could remain a part of the Ottoman Empire (Germany’s ally in WW1) and the emigration Europe’s Jewry would transform Palestine into a blooming land, which would also be in the interests of the Ottoman Empire. The Committee ceased working after the collapse of Imperial Germany in November 1918.

Jewish Latvians started to emigrate to Palestine in the 1890s. In 1891, emigrants from Latvia took part in the founding of the Hadera settlement (now a city in Israel) in Palestine.⁵ It is estimated that some 4500 Jewish Latvians emigrated to Palestine between 1925 and 1935.⁶ The figures for the period 1936 to 1944 are more precise at 820 Jewish Latvian immigrants to Palestine.⁷ In this latter period Great Britain had imposed quotas for Jewish immigration to Palestine, so considerable illegal immigration also took place but, of course, was not registered in any statistics. A number of later well-known Israeli figures had emigrated from Latvia to Palestine in the interwar period, such as historians Shulamith Shahar and Haim Beinart; composers Nachum Heiman and Marc Lavry, the first Ashkenazi chief rabbi of Palestine under the League of Nations mandate to Great Britain to administer Palestine, Abraham Isaac Kook, as well as the graphic designers Maxim and Gabriel Shamir.

In 1929, the eminent Latvian poet and playwright Janis Rainis visited Palestine. Prior to WW1, Rainis had written the tragedy *Jāzeps un viņa brāļi* (Joseph and His Brothers). In terms of philosophical scope and satiety, *Jāzeps un viņa brāļi* is the apex of Rainis’ creative work. It was first published in 1919. In April–May 1929, he traced Joseph’s footsteps in Palestine and Egypt, and visited Joseph’s tomb in Palestine. In Palestine he was the guest of Jewish friends and being a social-democrat, he was very interested in the way the Jews were transforming Palestine (he met with David Ben Gurion and other Jewish labour leaders) as he saw it on

² Kārlis Balodis (German: Carl Ballod; June 20, 1864 – January 13, 1931) was a notable Latvian economist, University professor, financier, statistician and demographer. Most notably, he was the author of civilian rationing, which was first used in Germany during the First World War and which was subsequently taken up by other nations.

³ *Palästina als jüdisches Ansiedlungsgebiet*. Berlin: Deutsches Komitee zur Förderung der jüdischen Palästinasiedlung, 1918.

⁴ Balabkins, N. & Šneps, M. (1993), p. 104.

⁵ Dowty, A. (2019), p.156.

⁶ Dribins, L. (1996), p. 14.

⁷ *A Survey of Palestine* (1946), pp. 187–203.

the basis of Zionism and socialism.⁸ Rainis and his travelling companions had prepared a very extensive programme of events including visits to the Histradut Cultural Committee, a health insurance company, and cooperative printing-house Hapoel – Hocaïr. They also visited several rural workers' organisations and kibbutzim. He was very moved by his visit to Palestine, four months before his death.

During the mandate era, two different social and economic systems, a Jewish one and an Arab one, developed under one political framework – the British mandate administration. Both the Jewish and Arab societies had their own welfare, educational, and cultural institutions and they gradually became in terms of politics and economics independent of one another. Thus, a “dual economy” developed in Mandated Palestine, based on two ethno-national communities.⁹

Latvia was recognised *de iure* by Western Europe on 26 January 1921. This collective act of recognition, was accepted by Latvia as conferring final and unreserved *de iure* recognition on the part of all the states represented on the Allied Supreme War Council, namely, Belgium, the British Empire (and thus Mandated Palestine), France, Italy, and Japan.

Although Mandated Palestine did not have direct representation in Latvia (Mandated Palestine affairs were handled by the British representative), Latvia had one honorary consulate in Mandated Palestine – Jerusalem (1928–1947). The honorary consul in Jerusalem was Mordechai Caspi, a businessman and public servant in Jerusalem. Mordechai Caspi was active in promoting commercial ties with Latvia and popularising Latvian goods in Palestine. He was decorated with the Latvian Order of the Three Stars, 4th Class in 1932. In 1936, Mordechai Caspi visited Latvia where he was received by the Latvian Foreign Minister.¹⁰ Following the annexation of Latvia by the USSR in 1940, all Latvian honorary consulates were closed and their leaders, including M. Caspi, were removed from office, in accordance with the decision of the Cabinet of Ministers of the Latvian PSR of 22 August 1940. However, M. Caspi, did not consider the directives of the Government of the USSR and the Government of Soviet Latvia legally binding, and continued to carry out consular functions under the authority of the Latvian Legation office in London until the end of his life in 1947.

⁸ Stranga, A. (2008), pp. 484–485.

⁹ For a thorough examination of the economy of Mandated Palestine based on this concept see Metzger, J. (1998) – The Divided Economy of Mandated Palestine.

¹⁰ <https://www.mfa.gov.lv/en/news/latest-news/3614-ministry-of-foreign-affairs-presented-documents-from-the-latvian-honorary-consulate-in-jerusalem> [Accessed 13.08.2020].

Table 1. Selected economic indicators for Latvia and Mandated Palestine in the interwar period

	Latvia	Mandated Palestine
Population (millions)	2 (1939)	1.1 (1939)
Share of urban population (%)	34.6 (1935)	48.6 (1944)
Share of agriculture in the labour force (%)	67.8 (1935)	75.5 (1935)+
National Income (millions Ls)	1256 (1938)	847 (1936)*
National Income per capita (Ls)	628 (1938)	770 (1936)
Share of Agriculture in NI (%)	39.2 (1938)	19.1 (1938)#
Share of Manufacturing in NI (%)	20.5 (1938)	16.9 (1938)#

*1936 Palestinian pounds converted to Lats

+ Jews = 21.4%; Arabs = 54.1%

#Based on NDP

Sources: Darbiņš, A. & Vītiņš, V. (1947); A Survey of Palestine (1946); Metzger, J., & Kaplan, O. (1985); Metzger, J. (1998)

As can be seen from Table 1, whilst the population of Latvia was nearly twice that of Mandated Palestine, the share of urban population was some 14% less than that of Mandated Palestine. The share of agriculture in the labour force in Latvia was some 8% less than that of Mandated Palestine, however, this was because of the overwhelming agricultural nature of the Arab population. The National Income per capita was near 30% more than that of Mandated Palestine, again due in part to the large share of agriculture in the Arab population. Latvia's share of agriculture in NI was nearly double that of Mandated Palestine mainly due to the differences between the Arab and Jewish segments of the dual economy. In 1939, the Arab share of agriculture in the NDP was 30.1%, whilst that of Jews was only 9.7%.¹¹ Latvia's economy was heavily structured towards agriculture and forestry. Nevertheless, both Latvia and Mandated Palestine were classified by the League of Nations as "less industrialised" countries rather than "Countries lagging in industrial development".¹² The share of manufacturing was only slightly more than that of Mandated Palestine (nearly 4%), again reflecting the differences between the Arab and Jewish communities (in 1939, the shares of NDP in manufacturing were 10.8% for the Arab segment and 24.2% for the Jewish segment).¹³

¹¹ Metzger, J. (1998), p. 142.

¹² Industrialisation and Foreign Trade (1945), pp. 26–27.

¹³ Metzger, J. (1998), p. 142.

Latvia-Mandated Palestine Economic Relations 1922–1939

In the interwar years, economic relations between Latvia and Mandated Palestine was mainly confined to foreign trade.

Latvia's foreign trade in the 1920s was based in large measure on a system of commercial and trade treaties. By 1929, Latvia had concluded commercial treaties with all important European states (except for Spain), including its two most important trading partners – Great Britain (22.06.1923) and Germany (28.06.1926). They provided the regulatory framework within which were stated the obligations undertaken by Latvia in its foreign trade relations with its trading partners up to 1931.

Latvia's foreign trade in relation to Mandated Palestine was more or less regulated by Latvia's 1923 treaty with Great Britain. Article 26 of the 1923 Treaty of Commerce and Navigation between Great Britain and Latvia states:

“The stipulations of the present Treaty shall not be applicable to India or to any of His Britannic Majesty's self-governing Dominions, Colonies, Possessions, or Protectorates, unless notice is given by His Britannic Majesty's representative at Rīga of the desire of His Britannic Majesty that the said stipulations shall apply to any such territory.

Nevertheless, goods produced or manufactured in India or in any of His Britannic Majesty's self-governing Dominions, Colonies, Possessions, or Protectorates shall enjoy in Latvia complete and unconditional most-favoured-nation treatment so long as goods produced or manufactured in Latvia are accorded in India or such self-governing Dominions, Colonies, Possessions, or Protectorates treatment as favourable as that accorded to goods produced or manufactured in any other foreign country”.

Most Colonies, Possessions and Protectorates had acceded to the Treaty, as well as self-governing Dominions such as Canada by the end of 1927.

Similarly, Article 1 of the 1934 Commercial Agreement between the Government of Latvia and His Majesty's Government in the United Kingdom, with Protocol allowed for the continuation of previous arrangements under the previous treaty:

“...The articles enumerated in Part II of the First Schedule to this Agreement... shall not on importation into Latvia ... be subjected to duties or charges other or higher than those specified in the Schedule, provided... enjoys most-favoured-nation treatment in Latvia in accordance with Article 26 or Article 27 of the Treaty of Commerce and Navigation between Great Britain and Latvia, signed on the 22nd June, 1923.”

Latvia-Mandated Palestine Trade 1922–1939

The value of Latvian imports from and exports to Mandated Palestine can be seen in the Figure 1.

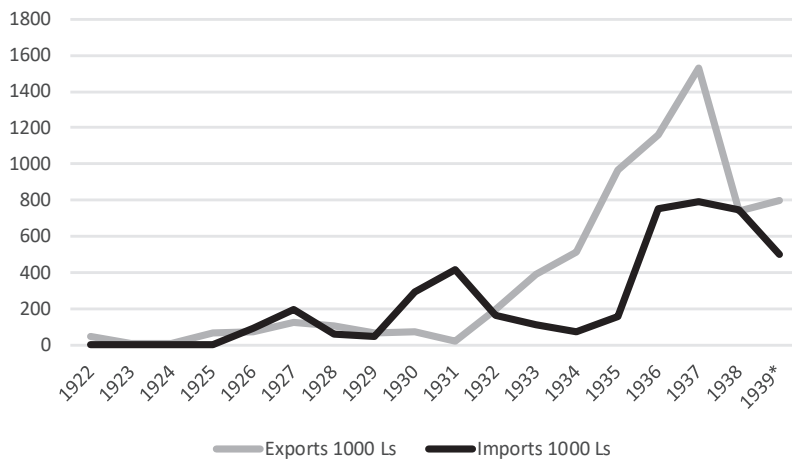


Figure 1. Latvia-Mandated Palestine Imports and Exports 1922–1939

* The data for 1939 is for eight months only – to 31 August 1939

Sources: Latvijas Statistiskās gada grāmatas [Latvian Statistical Yearbooks]. 1921–1939; Latvijas ārējā tirdzniecība un tranzīts – 1922–1939. [Latvian Foreign Trade and Transit. 1922–1939.]; Mēneša Biļetens Nr. 10, oktobris 1939 [Monthly Bulletin, No. 10, October 1939]

As Figure 1 shows, exports to Mandated Palestine in 1920s were low, reaching a pre-Depression high in 1927 of some 126 thousand lats. Exports rose dramatically with the end of the Great Depression, reaching a post-Depression high of some 1533 thousand lats in 1937. Imports, on the other hand, also remained very low in the early 1920s, but increased rapidly with a pre-Depression peak in 1931 and a value of 414 thousand lats. Imports also fell with Great Depression, although they recovered, starting to rise from 1935 and also reaching their peak in 1937 and a value of 791 thousand lats. Generally, exports substantially exceeded imports throughout the interwar period, especially in the 1930s.

Latvian Exports to Mandated Palestine

Latvia's main exports to Mandated Palestine were Fish and Fish conserves (including "Sprötes"¹⁴), Plywood, Paper and paper products, Timber and timber and timber products, Butter, and Wooden nails and pins for footwear (See Table 1).

Table 2. Latvia's Main Exports to Mandated Palestine (1923–1939)

Year	Fish and Fish conserves (including "Sprötes")		Paper and paper products		Timber and timber and timber products		Plywood		Butter		Wooden nails and pins for footwear	
	tonnes	Value (1000 Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000 Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000Ls)	tonnes	Value (1000Ls)
1923	0	0	0	0	Less than 1 tonne	Less than 1000 Ls	0	0	0	0	0	0
1924	5	7	0	0	0	0	0	0	0	0	Less than 1 tonne	Less than 1000 Ls
1925	20	44	59	22	0	0	0	0	0	0	0	0
1926	27	59	5	4	0	0	0	0	0	0	Less than 1 tonne	Less than 1000 Ls
1927	16	34	103	37	0	0	0	0	0	0	Less than 1 tonne	Less than 1000 Ls
1928	17	31	43	27	0	0	0	0	0	0	1	1
1929	33	57	14	9	0	0	0	0	0	0	0	0
1930	35	59	20	11	0	0	7	3	0	0	1	1
1931	13	19	3	3	0	0	0	0	0	0	0	0
1932	27	33	16	5	1140	84	101	21	22	35	1	1
1933	46	47	62	19	2531	145	2	Less than 1000 Ls	102	127	Less than 1 tonne	Less than 1000 Ls
1934	62	50	115	25	3609	233	32	6	190	146	Less than 1 tonne	Less than 1000 Ls
1935	113	94	255	58	1475	95	69	11	645	635	1	1
1936	63	103	231	56	337	23	90	16	629	915	1	1
1937	46	97	550	193	528	93	11	3	468	1093	2	2
1938	31	62	138	44	174	24	1	Less than 1000 Ls	249	597	3	2
1939*	42	91	734	214	0	0	0	0	146	344	0	0

* January–August 1939 (with commencement of WWII, Latvia ceased publication of detailed foreign trade statistics)

Sources: Latvijas Statistiskās gada grāmatas [Latvian Statistical Yearbooks]. 1921–1939; Latvijas ārējā tirdzniecība un tranzīts – 1922–1939. [Latvian Foreign Trade and Transit. 1922–1939.]; Mēneša Biļetens Nr. 10, oktobris 1939 [Monthly Bulletin, No. 10, October 1939]

¹⁴ "Šprötes" or sprats are close relatives of anchovies, sardines, and herrings. The Latvian style is to smoke and/or preserve them in oil.

A significant and consistent Latvian export to Mandated Palestine in the interwar period was fish and fish conserves (including “Sprotes”), with a pre-Depression peak in 1926 and a post-Depression peak in 1935. Similarly were paper and paper products. Paper and paper products exports reached an early peak in 1927 and continued strongly in the 1930s with a peak in terms of volume and value in the eight months of 1939 and a value of 214 thousand lats. Timber and timber product exports began in 1932, with a peak in terms of volume and value in 1934 and a value of 233 thousand lats. Plywood exports also began in 1932, but were a fluctuating part of exports in the 1930s. Similarly, butter exports were a small, but stable export in the 1930s with a peak in terms of value of 1093 thousand lats in 1937. A very small, and fluctuating part of exports throughout the interwar period was wooden nails and pins for footwear.

Latvia also exported to Mandated Palestine small quantities of mushroom and cucumber conserves, jams and marmalades, metal products, match sticks, glass, confectionery, books, and other goods. Radios were also a popular export to Mandated Palestine in the late 1930s.

Latvian Imports from Mandated Palestine

Latvia’s main imports from Mandated Palestine were Fruits (including oranges, lemons, figs, grapes, pears, etc.), Tobacco, and Olive oil. The amounts and value of Latvia’s main imports imported from Mandated Palestine in the interwar period are shown in Table 3.

Table 3. Latvia’s Main Imports from Mandated Palestine 1923–1939

Year	Fruits (including oranges, lemons, figs, grapes, pears, etc.)		Tobacco		Olive oil	
	tonnes	Value (1000 Ls)	tonnes	Value (1000 Ls)	tonnes	Value (1000 Ls)
1923	0	0	Less than 1 tonne	Less than 1000 Ls	0	0
1924	Less than 1 tonne	Less than 1000 Ls	0	0	Less than 1 tonne	Less than 1000 Ls
1925	Less than 1 tonne	Less than 1000 Ls	Less than 1 tonne	1	0	0
1926	Less than 1 tonne	Less than 1000 Ls	11	90	0	0
1927	Less than 1 tonne	Less than 1000 Ls	24	197	0	0
1928	Less than 1 tonne	Less than 1000 Ls	13	106	0	0
1929	3	3	6	42	0	0

Year	Fruits (including oranges, lemons, figs, grapes, pears, etc.)		Tobacco		Olive oil	
	tonnes	Value (1000 Ls)	tonnes	Value (1000 Ls)	tonnes	Value (1000 Ls)
1930	304	209	11	82	Less than 1 tonne	Less than 1000 Ls
1931	639	406	0	0	3	6
1932	361	159	Less than 1 tonne	Less than 1000 Ls	2	3
1933	225	103	0	0	3	4
1934	159	71	0	0	2	2
1935	273	146	0	0	3	4
1936	1832	713	0	0	9	13
1937	1442	761	0	0	8	24
1938	1309	658	0	0	1	3
1939*	848	435	0	0	0	0

* January–August 1939 (with commencement of WWII, Latvia ceased publication of detailed foreign trade statistics)

Sources: Latvijas Statistiskās gada grāmatas [Latvian Statistical Yearbooks]. 1921–1939; Latvijas ārējā tirdzniecība un tranzīts – 1922–1939. [Latvian Foreign Trade and Transit. 1922–1939.]; Mēneša Biļetens Nr. 10, oktobris 1939 [Monthly Bulletin, No. 10, October 1939]

Latvia's most important and consistent import from Mandated Palestine was Fruits (including oranges, lemons, figs, grapes, pears, etc.). Although the quantities imported in 1920s were small, imports of fruits (including oranges, lemons, figs, grapes, pears, etc.) – especially oranges, increased dramatically in the 1930s, reaching a peak in terms of quantity in 1936 and a peak in value of 761 thousand lats in 1937.¹⁵ Tobacco was a small, but consistent import in the 1920s, reaching a peak in 1927 with a value of 197 thousand lats. In the 1930s, Latvia had found other (and cheaper) sources of tobacco and this product disappeared from the import structure with Mandated Palestine. Olive oil became a small, but steady import from Mandated Palestine in the 1930s.

Latvia also imported from Mandated Palestine small quantities of textiles, wine, nuts, books, sesame seeds, and medical instruments.

¹⁵ Citrus exports from Mandated Palestine were 77% of all exports in the period 1931–1939 (Metzer, J. (1998), p. 163).

Conclusion

In the interwar years, Latvia's and Mandated Palestine's economic relations were almost exclusively confined to foreign trade.

In 1929, when Latvian foreign trade reached its pre-Depression peak, Latvian exports to Mandated Palestine made up 0.02% of total Latvian exports, and imports from Mandated Palestine made up 0.01% of total Latvian imports. Similarly, in 1937, when Latvian foreign trade reached its post-Depression peak, Latvian imports from Mandated Palestine made up 0.3% of total Latvian imports and Latvian exports to Mandated Palestine made up 0.6% of total Latvian exports. Despite the significant increase in the proportions of Latvia-Mandated Palestine trade in the Latvian data, one suspects that the figures from the point of view of Mandated Palestine would be significantly less. In other words, trade and thus economic relations were of marginal significance to both countries in the interwar period.

On 29 November 1947, the UN voted to partition Mandated Palestine. On 14 May 1948, the State of Israel was proclaimed. Diplomatic relations between Latvia and Israel were established on 6 January 1992. It is interesting to note that in 2019, Latvian exports to Israel totalled 45.8 million EUR (mainly food industry products, timber and timber products, machines, mechanisms, and electrical equipment, and optical devices and apparatus). Whilst imports from Israel totalled 26.3 million EUR (machines, mechanisms, and electrical equipment, chemical industry products, plastic and rubber products, and optical devices and apparatus). As in the interwar period, Latvia has a positive trade balance with Israel. Unlike the interwar period there are minor Latvian investments in Israel (totalling some 2 million EUR), whilst there is more substantial Israeli foreign direct investment in Latvia to a value of 58 million EUR in 2019.¹⁶

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¹⁶ Data from LIAA [Latvian Investment and Development Agency], http://eksports.liaa.gov.lv/files/liaa_export/attachments/2020.03_LV_Israela_ekon_sad.pdf [Accessed 13.08.2020].

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ADOPTION OF A PUBLIC E-PROCUREMENT SYSTEM IN UKRAINE

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Abstract

Over the last decade Ukraine has been making attempts at creating a viable public e-procurement system that will satisfy the demands of its international partners, as well as domestic needs with the public procurement involving central governmental bodies perceived as corrupt by the public and business representatives. ProZorro.Sale became the answer to the pressing issues at hand as well as a beacon of hope for the anti-corruption efforts undertaken by the last two governments. The article explores the policy window that facilitated its launch and the latest legislative amendments introduced in order to address the drawbacks that became apparent when more and more users started interacting with the e-platform.

Key words: Ukraine, e-procurement, ProZorro.Sale, B2G relations, anti-corruption

Introduction

The omnipresence of internet technologies and the prevalence of interconnectivity between the parties engaged in various activities online allowing for the better responsiveness is changing not only the way of interaction online, but also the way business-to-government relations are developing. Developed states were among first to start implementing the innovations with regard to e-governments providing services to the population 24/7, increasing availability and transparency. Such activities include participation in public procurement and tendering that is e-procurement. E-procurement is defined as a “comprehensive process in which organizations use IT systems to establish agreements for the acquisition of products or services (contracting) or purchase products or services in exchange for payment (purchasing)” (Gunasekaran & Ngai, 2008, p. 161). E-procurement can boast several perceived benefits that can be of strategic nature, providing companies with desired market advantage; operational benefits that help with efficiency and cost reduction of the acquisition process, like the elimination of clerical errors; and

opportunity benefits improving the circulation of data, opening connecting the buyers with suppliers (Attaran, 2001, p. 177), just to name a few.

The developing countries are now following suit, and are greatly encouraged to implement e-procurement systems as an integral part of their e-government platforms, not only because of the previously listed benefits, but also because e-procurement in public tendering has a potential to be an anti-corruption tool, necessary to improve their anti-corruption record (Neupane et al., 2012). Business-to-government (B2G) e-trading platforms are designed to conduct and facilitate the procurements of goods and services by the government agencies from the business entities to satisfy the needs of the public sector in accordance with the current legislation. According to the 2020 study conducted by the EU Anti-Corruption Initiative, 69% of Ukrainians rate corruption as the second most important issue facing the state, it was only topped by the conflict in the East of the country (72,7%).

Apart from the corruption perception among the population, the study also offers a review on how the business views the situation, and based on 1098 interviews conducted in 2020, public procurements with the ministries or other central government bodies are perceived as more corrupt reaching 3.73 out of 5 possible points by the EUACI system (Vološevych, 2020). The share of population knowledgeable in the issues related to corruption, or the number of those ready to refuse to engage in corrupt practices, or those ready to become a whistle-blower and uncover corruption, is considerably smaller, than desirable. Since 2011 Ukrainian government vowed to implement a novel anti-corruption system that is “mostly pre-emptive in its nature” (Mischenko, 2014, p. 36), based upon the idea of creating a number of corruption prevention mechanisms embedded into the society, and the behavioural norms and requirements put forth before the government officials for them to follow (Mischenko, 2014). Public e-procurement system quickly became a top priority there, “as it was always considered to be the most bias towards the tenderers, and the most corrupt” (Romanenko & Shchokin, 2016, p. 27). Therefore, it required immediate action, which in return lead to the implementation of the first off Ukrainian e-procurement platform ProZorro.Sale, which, according to the analytical information presented by the platform, facilitated 1.92 million procedures related to the e-procurement processes in 2019–2020 (‘Qlik Sense’, 2020).

Starting from the 1990s the scientific community managed to build up quite an extensive list of literature on e-procurement, initially focusing on the successes and challenges the implementation of the system introduces (Angeles & Nath, 2007; Chu et al., 2004; Caniato et al., 2010), policy issues (Hardy & Williams, 2008), and implications for the public and private

sectors (Panayiotou et al., 2004; Ash & Burn, 2003; Williams & Hardy, 2005). Going further, the research focused on the case studies and experiences of different regions and states had while implementing it (Mischenko, 2014; Litvinova, 2019). This article aims to shed light on the e-procurement implementation progress in Ukraine four years after the ProZorro.Sale launch with an emphasis on its anti-corruption capabilities. The article also examines legislative measures taken to ensure fairness and transparency and their implications for tender participants as the latest amendments to the Law on Public Procurements in Ukraine were adopted in order to rectify the pitfalls that became apparent after the ProZorro platform's launch.

The article is structured as follows. First, it provides an overview of e-procurement implementation and the factors that created the 'policy window' that appeared in Ukraine, enabling the state to act upon it. Careful attention is paid to the anti-corruption potential of the e-procurement platform in Ukraine. Then, a separate section is devoted to a closer look at the ProZorro.Sale system itself and its supporting bodies such as DOZORRO, that ensure its operationality, emphasised by several concrete examples of the activities associated with it. The authors examine its benefits and drawbacks, including those previously identified in other studies, in order to determine those that are still not eliminated by the new legislature and can potentially become a problem for the tenderers interacting with the platform. The study ends with a discussion of the findings.

Setting Up E-procurement in the Ukrainian Public Sector. Preconditions Determining the Innovation Implementation

Innovation in Public Procurement became one of the defining talking points for the previous and current Ukrainian governments' efforts to 'clean up the act' and reduce corruption throughout the whole sector of the economy. The setting for it was just right as "the evolution of public procurement policies in every country is embedded in a specific institutional context, it becomes inevitable to understand the factors affecting the institutionalization of PPI policies" (Lember et al., 2013, p. 288). Guided by the framework developed by Lember, Kattel, and Kalvet, this section of the article analyses the steps taken by the Ukrainian authorities in order to implement the e-procurement system in Ukraine. It was previously used to analyse public procurement of innovation, however, with mild adjustments, it can also be useful to analyse innovations in public procurement as a whole, especially when it concerns the so-called 'policy window' that appears when all factors at three levels collide.

Table 1. Framework for mapping factors shaping public procurement policies

Analytical level	Institutional factor	Ukrainian context
International pressures	Normative pressure (administrative and economic policy paradigms), regulatory (trade) and economic (globalisation) pressure	Pivot to the West, Association Agreement between the European Union and Ukraine, Agreement on Government Procurement (GPA) within WTO
Socio-economic environment	Economic background and development	Ukraine's market capabilities and steadily growing e-market capacity, relatively low entrance threshold, growing access to internet services
Policy context	Polity (state structure, political system and preferences) Public procurement system and values Public procurement support institutions	Calls for democratisation, fair play, and transparency

Source: (Authors' elaboration based on Lember et al., 2013)

International pressures played a key role in e-procurement implementation in this case, becoming a major determinant for policy changes. Since the late 2000s, Ukraine attempted to make a pivot to the West with negotiations about possible agreements launching as early as 2007 (Cabinet of Ministers of Ukraine – Association Agreement between the European Union and Ukraine, 2014). Association Agreement between the European Union and Ukraine signed in September 2014 became one of the crucial catalysts in striving for greater transparency in order for Ukraine to have a chance to be considered as a potential EU member when the next enlargement round takes place. Annex XXI to Chapter 8 of the Association Agreement deals with the public sector procurement with Article 28 calling for “use of open, restricted and negotiated procedures and competitive dialogue” and Article 30 emphasising “use of the negotiated procedure with prior publication of a contract notice” (Annex XXI to Chapter 8. Indicative Time Schedule for Institutional Reform, Legislative Approximation and Market Access, 2014) necessary to ensure due process.

Having signed the Association Agreement, Ukraine undertook a series of responsibilities, one of which concerns aligning its public procurement policies with the EU regulations, which in return paved way for the launch Harmonisation of Public Procurement System in Ukraine with EU Standards project that was called to reform the public procurement system “through the establishment of a comprehensive and transparent regulatory framework for public procurement, an efficient public procurement institutional infrastructure, the accountability and

integrity of public authorities in regard to public procurement” (‘About Harmonisation of Public Procurement System in Ukraine with EU Standards’, 2013). The project then lent assistance with drafting the Law on Public Procurement establishing the system of “open bids, competitive dialogue, and negotiable procurement procedure” (‘Ukraine: Law on Public Procurement’, 2015). Although Ukraine was not obliged to implement e-procurement system under any of those agreements, it turned out to be the most efficient way to ensure transparency and impartiality, which consequently lead to a reduction in corruption.

April 19, 2020, saw the new version of the Law on Public Procurement come into effect that contains necessary amendments to address the pitfalls pointed out by experts and tenderers that used ProZorro.Sale platform. It sets a simplified tender offer as such that equals or exceeds UAH 50 000, but does not reach the UAH 200 000. The buyer then has an option to use the simplified tender offer or sign a direct contract with the supplier. The law also identifies a new type of procedure in public procurement to be available from October 10 2020 – selective tendering, that presupposes obligatory verification of the tenderer’s qualifications (‘Legal Developments in the New Version of the Law on Public Procurement’, 2020). It should be noted, that previously such verification was only available after the auction winner was chosen, which was considered a serious drawback by several experts (Olefir, 2017; Medzhybovska & Lew, 2019). The amendments to the Law on Public Procurement seem to make an attempt to rectify that particular issue.

Collusion remains a point of concern, where the buyer would cancel the tender citing sudden ‘considerable’ breach of public procurement legislation, lack of further need in the procurement item, issuing unreasonable demands to provide additional documents or coming up with different made-up reasons to not fulfil the obligations in case the ‘wrong’ bidder wins the auction. The recent amendments to the law provide the State Audit Service of Ukraine with the ability to hold the tenderers that practice such unfounded cancellations accountable. Penalties for gross violations grew and now amount to UAH 21 000–51 000 or UAH 51 000–85 000 for repeat violations. More serious corruption-related violations will see the senior officials held responsible. For instance, lodging a tender circumventing the formal prescribed by the law procedure will carry a UAH 34 000–170 000 penalty (‘Legal Developments in the New Version of the Law on Public Procurement’, 2020).

One more significant improvement concerns the setting the definition of the ‘abnormally low price’ that will be automatically determined by the system to counteract price damping. However, it does not mean that the tenderer cannot under any circumstances win the auction with

the abnormally low price. “If a tenderer can justify the low price, then everything is in their hands. The rules for such transactions are clearly determined by the law” (‘Legal Developments in the New Version of the Law on Public Procurement’, 2020). It equally attempts to fix the complaint system by changing the deadlines for launching a complaint regarding violations of rights of the supplier in relation to actions or inaction of the buyer. The participant that launched a complaint will also have 3 additional days to attach any supplementary documentation necessary to consider the complaint (‘Legal Developments in the New Version of the Law on Public Procurement’, 2020).

Yet another crucial step in the e-procurement regulation area that has had similar effects has to do with the ratification of the Agreement on Government Procurement (GPA) which took effect in Ukraine in 2016. It imposes strict regulations and provides unified requirements to follow and aims “to open up, as much as possible, government procurement markets to international competition, make government procurement more transparent, and provide legal guarantees of non-discrimination with regard to the products, services or suppliers of any party to the Agreement” (‘WTO | 2016 News items – Ukraine ratifies revised WTO procurement pact’, 2016).

The socio-economic environment was also favourable for e-procurement implementation, going in tandem with the overall trend as over the last couple of years Ukrainian e-commerce market was just about the only sector of the economy that demonstrated steady growth at about 20–25% a year, notwithstanding the general market fluctuations. Seeing that Ukraine is a developing state with the estimated e-market capacity of the equivalent of USD 400–500 million (Romanenko & Shchokin, 2016), it could also unlock considerable previously untapped potential.

Apart from the legislative initiatives, like the Law of Ukraine ‘On Prevention of Corruption’ that established National Agency of Corruption Prevention, for example, that became responsible for the anti-corruption policy nationwide (The Law of Ukraine ‘On Corruption Prevention’, 2014), Ukraine took steps towards greater inclusion of e-government that was supposed to ensure greater transparency and access to services for everyone. One of the most important steps was to promote better public procurement by ensuring its transparency and fairness, provide the public with complete access to the procurement information, in theory, allowing its analysis and oversight, engage with the business and create competition in the sector (Public Procurement Reform, 2014). The actions were definitely required as public procurement constituted 13% of Ukraine’s annual GDP (Public Procurement Reform, 2014), amounting to almost 250 billion UAH (Romanenko & Shchokin, 2016, p. 31). Besides, economic

experts are convinced clandestine dealings in public procurement annually deprive the state of additional UAH 50 billion (Miniailo & Kostenko, 2016, p. 141), therefore being marred by corruption or nepotism allegations not only interferes with the broader image of openness Ukraine was and still is striving for, but also exposes significant economic cost for the budget.

The Ministry of Economic Development and Trade of Ukraine in tandem with Transparency International Ukraine, National Bank of Ukraine, and Deposit Guarantee Fund assisted in the creation of ProZorro.Sale platform. It was conceived on the basis of the hybrid Dutch auction design with the assistance provided by the international experts such as Nobel Prize winner Roger Myerson (Main – ProZorro.Sale. About us, 2020). ProZorro.Sale adheres to the open data policy providing a public business intelligence module that contains continuously updated auction statistics intended to increase public trust in the system. Since its 24 June 2016 launch, the platform became the main podium for sales of state and communal property that equally strives to fight corruption “by the means of equal access to data, public control and through increasing the number of the potential buyers” (Main – ProZorro.Sale. About us, 2020). According to the information provided by the ProZorro.Sale website, they started by selling the property of the insolvent banks and within a year managed to facilitate 1 billion UAH worth of transactions, whereas since its launch until 2020 total volume of transactions through the platform reached the equivalent of 890 million USD with over 15 thousands registered participants (Main – ProZorro.Sale. About us, 2020). Gradually ProZorro.Sale took over the whole public procurement sector operating nationwide and overseeing transactions exceeding 200 000 UAH, with the Ministry of Economic Development and Trade representative Maksim Nevzorov highlighting the fact that the system allowed savings amounting to around 11.5% on average with items that were auctioned through it in comparison with the previously used system (‘ProZorro Status Quo and Prospects’, 2017).

Now, in line with the greater transparency policy, the Centre for Journalism at Kyiv School of Economics offers practicing journalists a chance to improve their knowledge of public procurement system with the newest free of charge course “Economics, Markets, and Data Analysis” providing the media representatives with the opportunity to properly analyse and visualise the information supplied by the ProZorro.Sale website and DOZORRO platform. The course is financed by USAID and UKAID Tapas Project supporting transparency and accountability in public procurement and services in order to combat corruption and boost trust in the Ukrainian government based on the proven transparency and accountability throughout the government offices (“Economics, Markets

and Data Analysis program for journalists”, 2020). Generally, the aspiration is that after taking the course journalists will be able to better verify the open data on public procurements made available by the platforms, as well as the government and convince the public and businesses that there are no behind-the closed-doors deals that lead to corruption in the past.

Kyiv School of Economics was also engaged in research regarding the harmful effects of the localisation regulation in machine-building procurement in Ukraine. According to their calculations making the localisation bill into law that restricts mechanical engineering imports in favour of the domestic manufactures in public procurement would cause 0.5% drop in Ukraine’s GDP and, what is more important, would roll back some of the positive effects the reforms in public procurement were having on the economy (TI Ukraine, 2020).

The aforementioned Tapas project also plays an important role aiming to fight corruption supporting the e-governance reform in Ukraine and implementing best practices observed globally in e-procurement, open data, and e-government services. Tapas is collaborating with the Ukrainian government and civil society to improve the existing ecosystem and help reduce corruption levels to make Ukraine more attractive to businesses (“About Tapas Project”, 2020).

The overall effects from the efforts to improve G2B relations become apparent analysing some of the data provided by the World Bank Doing Business ranking where in 2020 Ukraine was placed on 64th spot judging by the ease of doing business score and 61st judging by the ease to start a business, which is a definite improvement in comparison with 2019 when the country ranked 71st and 2018th when Ukraine occupied 76th place (The World Bank, 2020). Such improvements in G2B relations are also promoted by the Better Regulation Delivery Office (BRDO) that strives to improve the Ukrainian business environment, attract investment, promote the development of entrepreneurship, and establishing a dialogue between the government and businesses. Their activities regarding market supervision include close engagement on resolving the issues with the public procurement system in Ukraine, including facilitation of the procurement review process that should improve the overall ecosystem in the country (“BRDO and CBU discussed public procurement issues with construction market stakeholders – Better Regulation Delivery Office”, 2019).

ProZorro.Sale: Benefits and Drawbacks

Since 2017, ProZorro.Sale introduced an option to participate not only in the auction designed specifically for the platform since its inception, but

also in the so-called ‘Dutch auction’ that is operating based on the following principles “designed specifically to increase the speed of sale, and tackle the comparative advantage of the insiders” (Shapoval et al., 2019, p. 13):

- 1) all the bidders are engaging with the seller on equal terms;
- 2) descending clock auction determines the ‘Dutch winner’ which essentially is the first bidder that claims the lot at the acceptable price after the auction first stage begins;
- 3) the second stage of the auction is the secretly submitted sealed bids in which the ‘Dutch winner’ does not participate. To win at this stage the participant has to be the highest bidder, the participants know the total number of bidders (Shapoval et al., 2019); and
- 4) the ‘best bid’ stage allows the ‘Dutch winner’ to compete for the lot with the sealed bid winner. Best bid wins the tender¹ (‘Hybrid Dutch auction (Insider) – Atrous SaaS Auction Platform’, 2020).

Bi.ProZorro.sale interactive data analytics module is another integral part of the system that allows public oversight through access to open data available on every procurement made through the platform. The oversight is vested into DOZORRO monitoring portal that encourages tenderers to provide feedback and grade their experience engaging with ProZorro.Sale, which in return can potentially lead to changes in the system in case there are frequent grievances over particular issues from the businesses.

The Ukrainian e-procurement platform also admittedly boasts some significant benefits. First and foremost, its replicability has already sparked interest from other states, that are interested in implementing similar technology. Sweden, for example, is now reportedly looking into ProZorro.Sale in order to implement the Open Procurement portal, which will replicate the Ukrainian model, at the national level. By the country’s estimation, it is expected to allow saving up to 7 billion SEK a year, an equivalent of the 1% of the total cost of procurement. The general belief is that “the open contracting will enable the government to provide services of a higher quality for the same price, while citizens will be able to understand how their taxes are spent and to prevent corruption and mistakes in tenders in time” (‘Sweden to Adopt Ukraine’s Procurement Practices | Transparency International Ukraine’, 2020).

The other benefit is the cost of launch, which is relatively low. The platform even won 2016 World Procurement Award in the Public Sector as well as 2019 Global Public Service Teams of the Year award in the ‘Doing More for Less’ category, indicating that the cost of the launch

¹ Detailed description of the Hybrid Dutch Auction is available at Atrous Auction Software *Hybrid Dutch auction (Insider) –Atrous SaaS Auction Platform*. Atrous SaaS Auction Platform. (2020). Retrieved 15 February 2020, from <https://atrous.auction/auctions/hybrid-dutch-auction/>.

was as little as USD 100,000, however, since then it helped generate more than USD 500 million in revenue ('Apolitical Announces 2019 Global Public Service Teams of the Year', 2019). Besides, it can be launched within 6 months, which is an attractive feature, especially if a state needs to act fast to demonstrate results and willingness to push for the transparency updates in the public procurement sector.

Benefits for the business side include greater access to the public procurement market and a chance to compete for lucrative governmental tenders with relatively low threshold levels starting from UAH 200 000 for goods and services and UAH 1.5 million for works, which theoretically opens up public procurements to small and medium enterprises (SMEs). Contracts in public procurement in Ukraine are also drawn for a year which guarantees profits within that period. Some of the Ukrainian SMEs then work exclusively within the contract, engaging only with their public procurement counterparts (Miniailo & Kostenko, 2016).

The amendments to the Law on Procurement now also call for all the buyers from governmental agencies to report every procurement that does not exceed UAH 50 000 by registering it through ProZorro system which is supposed to increase transparency and accountability. To uphold this decision, the Ministry of Economic Development and Trade of Ukraine recently published a draft decree 'On Adoption of the Regulatory Procedure to Oversee the Launch and Use the Electronic Catalogue' that concerns a new feature – the ProZorro Market – a national e-store designed to handle the pre-threshold procurements up to UAH 50 000, destined for the needs of the governmental institutions, from the most mundane, like disposable cutlery, to more sophisticated ones ('On Adoption of the Regulatory Procedure to Oversee the Launch and Use the Electronic Catalogue', 2020). Overseeing the e-store is Centralized Purchasing Organization (CPO) 'Professional Procurements', created to resolve the following issues: "professionalizing of public procurement sector, increasing cost savings through volume aggregation, procurement standardization, and reducing the level of corruption" ('Cabinet of Ministers of Ukraine – Centralized procurement agency set up in Ukraine', 2019).

ProZorro.Sale allows to leave feedback or effectively launch a complaint using the DOZORRO website as an intermediary, which is an important step in accordance with the roadmap drawn up after GPA ratification. Another plus is a possibility to participate in the free of charge training and workshops arranged by the ProZorro team, which according to the ProZorro reports amounted to 100 events with about 2500 business circles representatives actively participating in the 2016–2017 period ('ProZorro Status Quo and Prospects', 2017). For those wishing to obtain a certificate, there is also an official 2 weeks public procurement

course with experts from Transparency International Ukraine, ProZorro coordinators, and GPA in Ukraine representatives providing classes on practical aspects of how to launch a complaint or more effectively engage with the platform as well as some general advice on public procurement in Ukraine ('Public Procurement for Business', 2017).

However, despite the amendments to the Law on Public Procurements, which did rectify some of the faults previously found with the platform, the system is still not without its shortcomings. First of all, it concerns the practice of fractionalisation of the tender amount in order to avoid the proper procedure that follows tenders exceeding UAH 200 000 threshold for goods and services and UAH 1 500 000 for works (Olefir, 2017, p. 4). For instance, in December 2017, Panutin Railway Car-Repair Plant held 64 identical tenders to purchase replacement parts, the summary total for a single tender would have been UAH 235 million (Stepankovska, 2018). Another example, in 2018, the Poltava City Council Education Department avoided participating in the ProZorro tendering system when procuring Christmas gifts for schoolchildren by purchasing the aforementioned gifts in smaller batches, lower in value than UAH 200 000, even though the total value of the tender, were it purchased in a single batch, would have amounted to UAH 1 781 000, which is well above the threshold. In addition, the local journalists pointed out that the wholesale price of each individual gift purchased by the Education Department was higher than the market retail price (Samoiduk, 2019). Up until now, the ProZorro platform provided no mechanism that targets fractionalisation so there are likely to be other attempts at playing the system this way. Besides, the last example touches upon one more issue that became apparent after the platform's launch: participation in an online auction "does not guarantee the buyer accepting the cheapest option available on the market due to a variety of factors, such as suppliers refusing to participate in tenders because buyers often request to lower the price; overextension of the expected value of the procurement item" (Olefir, 2017, p. 4), etc.

Probably the most widespread criticism concerns the fact that control over the qualification-based selection of the prospective suppliers, which provides the buyer with ample possibilities to tailor the qualification criteria in a way that only fit the 'necessary' enterprises, like when "the buyer adjusts the criteria in any way that fits his agenda so that a bogus company can win the tender; some criteria are discriminatory in nature" (Olefir, 2017, p. 7). For example, the Road Service in Vinnytsia region manipulated the tender for road repair works that amounted to UAH 306 million in such a way, that the only possible winner for it was the Rostdorstroy firm that was closely connected to Odesa mayor Gennadiy Trukhanov. The buyer stipulated that to qualify the tenderers should have their own, rented or

leased bitumen concrete plant with 100 tons per hour capacity situated close to the designated work area, not exceeding 150 km. Due to this requirement, the Turkish company Onur Construction International was disqualified, even though its offer was more profitable (Sheitenko, 2018).

Another loophole in the system is related to tender concealment through the erroneous definition of the procurement item in order to provide an opportunity to participate exclusively to the predetermined tenderers and eliminate everyone else who might become competition (Medzhybovska & Lew, 2019), providing an opportunity for collusion. A characteristic example here will be machinations attempted by Lutsk public electric transport facility that in 2017 announced a tender for technical reequipment of the city trolleybuses with the aim to arrange it as a pre-threshold procurement procedure even though the tender amounted to UAH 3 356 000. Additionally, the buyer inaccurately defined the procurement item labelling equipment removal as 'works' instead of 'services' which in fact allowed Lutsk public electric transport facility to acquire a pre-threshold procedure status for the tender. Transparency International Ukraine expert Myroslava Prymak explained that "if the buyer participates in a public auction, the procurement then is covered by the Law on Public Procurements and all the discrepancies are punishable under administrative procedure" (Kutz, 2017). However, the pre-threshold auctions are not covered by the said law, instead, they are to follow ProZorro Decree № 35 which is advisory in its nature, and the tenderers are not liable for any discrepancies or violations. The recent amendments to the Law on Public Procurements decreased the penalties for procedural violations sevenfold, therefore erroneous definition of the procurement item now only carries UAH 1 700 fine, which is the equivalent of USD 63 instead of UAH 11 700 which equal to USD 437. Whether such actions will grow in number as a result, tempting more tenderers to engage in collusion without the risk to be subject to severe penalties remains to be seen. That said, the State Audit Service of Ukraine now has the ability to impose penalties on the offenders independently, without referring the case to court, leading to a speedier response from the overseeing body, which may, in theory, become a deterrent.

Discussion

The policy window that opened for Ukraine to create its own e-procurement platform was hailed as one of the greatest achievements by the Ukrainian experts. It is now reaching the level of integration into the system necessary to make a difference throughout the sector with almost any public procurement having to be registered into the system.

Despite the evident achievements, benefits, and improvements that the platform ensures, previously conducted studies came up with various valid reasons to critique the ProZorro.Sale and its corruption prevention mechanisms. The anti-corruption capabilities for such platforms are indeed questioned quite frequently, with some scholars pointing out they can hardly agree such platforms have the necessary potential to single-handedly limit the volume of the corruption-related illicit activities in any given country (Shentov et al., 2011). The evidence in Ukraine also demonstrates that anti-corruption efforts are not always perceived in a positive light with studies indicating that after the launch of ProZorro in 2016 the corruption perception index did not improve in a significant way, moreover, in 2020 the degree of corruption perception among the population grew in comparison with 2017.

Another staggering thing is, the corruption perception of the National Agency of Corruption Prevention and the National Anti-Corruption Bureau grew the most from 3.61 to 3.95 and from 3.56 to 3.92 respectively. It is even more noticeable with the business sector, where those NACP now has 3.24 points instead of 2.91 in 2017 and 3.29 instead of 2.69 points (Vološevych, 2020). The proposed changes to the Law on Public Procurement improved the system and eliminated some of the most prominent risks that existed in the e-procurement system, however, the amendments to the law are recent and they did not yet influence the 2020 corruption perception index, the effect it will have on the business-to-government relations, and a possible shift in corruption perception that will take place after the amended law comes into force need to be studied more thoroughly. At the moment it is possible to say that they have the potential to eliminate much criticism directed at ProZorro itself and the anti-corruption efforts in Ukraine in general. The addition of a coherent legal framework would be the key component to ensure the success of this venture. This requires political will from the state authorities and a considerable push from the public. In a situation where some individuals in a position of authority are acting as a major corruption source, ensuring such political will and controlling the implementation of the necessary laws should ideally fall to the population, which makes raising awareness about corrupt practices becomes vital. In this regard, work conducted by DOZORRO, TI Ukraine, and other overseeing bodies becomes the bridge between the needs of the businesses and the legislative branch.

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STRUCTURAL EQUATION MODELING: THE IMPACT OF LEADER ATTITUDES ON THE INNOVATIVE WORK BEHAVIOUR IN REAL ESTATE DEVELOPMENT COMPANIES

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Abstract

Leadership and innovation management are academic disciplines of high interest to scholars for decades. The fast changing and volatile business environment require companies to constantly improve their processes to remain competitive on the market. In particular, real estate development companies significantly benefit from innovativeness as each property development is unique, underlies different construction purposes and laws. Therefore, real estate developers need to bring the developable area in line with the building construction. One major driver to boost the competitiveness of organisations can be found in the individual innovative work behaviour of employees. To benefit from the individual's innovative work behaviour, leadership embodies a major influence factor. In particular, this article examines how leader attitudes affect the innovative work behaviour of staff members working in real estate development companies. Therefore, the author developed and calculated a structural equation model to examine this relationship. The results from the structural equation modelling show that integrity and loyalty positively and significantly affect the innovative work behaviour of employees in real estate development companies. Consequently, demonstrating loyalty and integrity from leaders towards staff members improves the innovativeness of the entire organisation. Moreover, this research supports the relevance for the trait approach to leadership as leader attitudes contribute to different extents to the innovative work behaviour.

Keywords: innovation management, innovative work behaviour, leader attitudes, leadership, real estate development companies, structural equation modelling

Introduction

The global competition, maintaining competitiveness, as well as the increasing economic performance requires companies to be innovative. To survive in a vibrant business environment, companies are forced to develop new ideas, products, and strategies in a systematic way. Innovation management has therefore become an indispensable element for gaining

competitive advantages.¹ Any company in the era of technological revolution and economic globalisation may not survive on the market without the components of creativity and innovation.² For Amabile (1996), innovation „is the successful implementation of creative ideas within an organization“.³ De Jong/Den Hartog (2007) consider that organisations can improve their innovativeness by focusing on the employees' individual abilities to be innovative.⁴ To succeed in this vibrant business environment, companies require individuals at every organisational level who are interested in continuous learning and improvements⁵ and leaders represent a major driving force in this management process.⁶ The indispensable necessity of innovation in organisations resulted in focusing on the role of leaders.⁷

Denti/Hemlin (2012) consider leadership as one major driver of innovative organisational performance⁸ as leaders from all organisational levels can contribute to learning and innovation.⁹ The review by Hughes et al. (2018) demonstrates theoretical and empirical support that leadership is a crucial component that affects workplace creativity and innovation. It is recommended conducting further studies to gain a precise understanding which leader behaviours are most important to reveal the mechanisms how to influence their staff members.¹⁰ Ahmed/Shepherd (2010) further emphasise that the nature of innovations, as well as its impacts are highly

¹ Dereli, D. D. (2015), Innovation Management in Global Competition and Competitive Advantage. *Procedia – Social and Behavioral Sciences* 195, p. 1366.

² Nabil, H., Abderraouf, G., Nadira, R. (2007), The Impact of Leadership on Creativity and Innovation. *International Journal of Humanities and Social Science Invention*, Vol. 6, Issue 6, p. 55.

³ Amabile, T. M. (1996), Creativity and Innovation in Organizations. *Harvard Business School Background Note* 396–239, p. 1.

⁴ De Jong, J. P. J., Den Hartog, D. N. (2007), How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, Vol. 10, Issue 1, p. 57.

⁵ Yukl, G. (2013), *Leadership in Organizations*. Eighth Edition, Essex, Pearson Education Limited, p. 105.

⁶ Carneiro, A. (2008), When leadership means more innovation and development. *Business Strategy Series*, Vol. 9, Issue 4, p. 176.

⁷ Mumford, M. D., Licuanan, B. (2004), Leading for innovation: Conclusions, issues, and directions. *The Leadership Quarterly*, Vol. 15, Issue 1, p. 163.

⁸ Denti, L., Hemlin, S. (2012), Leadership and innovation in organizations: A systematic review of factors that mediate or moderate the relationship. *International Journal of Innovation Management*, Vol. 16, Issue 3, p. 2.

⁹ Yukl, G. (2013), *Leadership in Organizations*. Eighth Edition, Essex, Pearson Education Limited, p. 109.

¹⁰ Hughes, D. J., Lee, A., Tian, A. W., Newman, A., Legood, A. (2018), Leadership, creativity, and innovation: A critical review and practical recommendations. *The Leadership Quarterly*, Vol. 29, Issue 5, p. 565.

complex.¹¹ Real estate development companies need to continuously modify their operations to respond timely to changes on the markets. Therefore, the way how real estate development firms respond to changes has significant impacts on the development and survival of the entire organisation.¹² Real estate development companies create the ideas for property investments and provide the foundation for the construction, commercialization, usage and further investment decisions.¹³

The aim of this article is to examine the relationship between leader attitudes and innovative work behaviour of staff members in real estate development companies by developing and calculating a structural equation modelling. In the following, the theoretical background of the trait theory, as well as the relevance and dimensions of innovative work behaviour are outlined.

Theoretical background and analysis of the trait approach to leadership

One of the first systematic attempts to research leadership can be found in the trait approach¹⁴ which dominated the beginning of leadership studies.¹⁵ The trait approach to leadership follows the assumption that leaders possess traits which distinguishes them from non-leaders.¹⁶ Trait theories do not distinguish between traits inherited or acquired and were also labelled as Great Man theories.¹⁷ Robertson/Callinan (1998) already pointed out that personality affects several work-related factors.¹⁸

¹¹ Ahmed, P. K., Shepherd, C. D. (2010), *Innovation Management. Context, strategies, systems and processes*. Essex, Pearson Education Limited, p. 4.

¹² Steele, J., Murray, M. (2004), Creating, supporting and sustaining a culture of innovation. *Engineering, Construction and Architectural Management*, Vol. 11, Issue 5, p. 317.

¹³ Brauer, K. U. (2011), Einführung in die Immobilienwirtschaft. In: Brauer, K. U. (Ed.), *Grundlagen der Immobilienwirtschaft. Recht – Steuern – Marketing – Finanzierung – Bestandsmanagement – Projektentwicklung*. 7., überarbeitete Auflage, Wiesbaden, Gabler Verlag, p. 33.

¹⁴ Yukl, G. (2013), *Leadership in Organizations*. Eighth Edition, Essex, Pearson Education Limited, p. 142.

¹⁵ Zaccaro, S. J. (2007), Trait-Based Perspectives of Leadership. *American Psychologist*. Vol. 62, Issue 1, p. 6.

¹⁶ Colbert, A. E., Judge, T. A., Choi, D., Wang, G. (2012), Assessing the trait theory of leadership using self and observer ratings of personality: The mediating role of contributions to group success. *The Leadership Quarterly*, Vol. 23, Issue 4, p. 670.

¹⁷ Kirkpatrick, S. A., Locke, E. A. (1991), Leadership: do traits matter? *Academy of Management Executive*, Vol. 5, Issue 2, p. 48.

¹⁸ Robertson, I., Callinan, M. (1998), Personality and Work Behaviour. *European Journal of Work and Organizational Psychology*, Vol. 7, Issue 3, p. 336.

According to Zaccaro/Kemp/Bader (2004), the term “trait” underlies confusion in the academic literature, referring variously to personality, temperaments, dispositions, abilities, as well as to qualities of leaders.¹⁹ Based on that, different types of research have been conducted to examine the trait approach.²⁰ Stogdill’s (1948) first survey was conducted to identify traits and characteristics of leaders. The results from the research show five factors to be associated with leadership: capacity, achievement, responsibility, participation and status. For Stogdill (1948), these results are not surprising as leaders hold a position which implies interaction and the fulfilment of the given tasks. Consequently, a further factor needs to be considered namely the situation. This means that leaders might perform well in a specific situation and fail in others.²¹ Mann (1959) performed a study to research the relationship between personality and the performance in groups. The results show that intelligence, adjustment, extroversion, dominance, masculinity, and conservatism are traits that could be used to distinguish leaders from other individuals.^{22 23} In contrast, Lord/De Vader/Alliger (1986) only found three personality traits namely intelligence, masculinity – femininity, and dominance associated with leaders and argue that personality traits are related with leadership to a higher degree than expected and indicated by the literature.²⁴ A more recent analysis by Kirkpatrick/Locke (1991) explicitly emphasises that leaders are not like others and can be distinguished from non-leaders in several aspects which are drive, leadership motivation, honesty and integrity, self-confidence, cognitive ability, knowledge of the business and other traits that are of weaker support such as charisma, creativity/originality, and flexibility. Kirkpatrick/Locke (1991) further outline that leaders do not have to be great by having outstanding intellectual abilities, but they need to have certain qualities which are not equally distributed

¹⁹ Zaccaro, S. J., Kemp, C., Bader, P. (2004), Leader traits and attributes. In: Antonakis, J., Cianciolo A. T., Sternberg R. J. (Ed.), *The nature of leadership*, Thousand Oaks, Sage Publications, p. 103.

²⁰ Yukl, G. (2013), *Leadership in Organizations*. Eighth Edition, Essex, Pearson Education Limited, p. 143.

²¹ Stogdill, R. M. (1948), Personal Factors Associated with Leadership: A Survey of the Literature. *The Journal of Psychology*, Vol. 25, Issue 1, pp. 35, 64–65.

²² Mann, R. D. (1959), A review of the relationships between personality and performance in small groups. *Psychological Bulletin*, Vol. 56, Issue 4, pp. 264–265.

²³ Northouse, P. G. (2016), *Leadership. Theory and Practice*. Seventh Edition, Thousand Oaks, Sage Publications, p. 21.

²⁴ Lord, R. G., De Vader, C. L., Alliger, G. M. (1986), A Meta-Analysis of the Relation Between Personality Traits and Leadership Perceptions: An Application of Validity Generalization Procedures. *Journal of Applied Psychology*, Vol. 71, Issue 3, p. 407.

in people. For example, business or technical knowledge originates from training and job experience whereas honesty is a virtue by choice.²⁵

The trait approach fits with the notion that leaders are unique individuals that significantly contribute to the welfare in our society. Moreover, the trait approach benefits from a century of research activities to back it up and no other leadership theory has been researched in such a depth and breadth which simultaneously gives this theory a measure of credibility that other leadership approaches lack.²⁶

Yukl (2013) outlines that significant progress has been achieved in research in order to detect traits of effective leaders.²⁷ Northouse (2016) highlights that the trait approach fails to examine cause-effect relationships. Previous research mainly focused on identifying traits but did not thoroughly research how leadership traits affect staff members' work.²⁸

The relevance and dimensions of innovative work behaviour

According to Potočník/Anderson (2016), the research fields of creativity and innovation, as well as behavioural science are aimed at explaining how individuals, teams, and companies deal with organisational changes to foster the organisational functioning. By considering the relevance of effective change and innovation management to remain competitive on the market and to ensure the long-term survival of the organisation, research in these fields has flourished in the past years.²⁹ In particular, research into innovation in general reveals wide disparity between different definitions but shows some similarities such as novelty, application, intentionality of benefit, and a procedural component.³⁰

²⁵ Kirkpatrick, S. A., Locke, E. A. (1991), Leadership: do traits matter? *Academy of Management Executive*, Vol. 5, Issue 2, pp. 48–49, 58.

²⁶ Northouse, P. G. (2016), *Leadership. Theory and Practice*. Seventh Edition, Thousand Oaks, Sage Publications, p. 30.

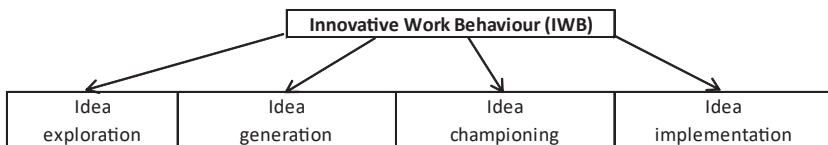
²⁷ Yukl, G. (2013), *Leadership in Organizations*. Eighth Edition, Essex, Pearson Education Limited, p. 163.

²⁸ Northouse, P. G. (2016), *Leadership. Theory and Practice*. Seventh Edition, Thousand Oaks, Sage Publications, p. 31.

²⁹ Potočník, K., Anderson, N. (2016), A constructively critical review of change and innovation-related concepts: towards conceptual and operational clarity. *European Journal of Work and Organizational Psychology*, Vol. 25, Issue 4, p. 481.

³⁰ West, M. A., Altink, W. M. M. (1996), Innovation at work: Individual, group, organizational, and socio-historical perspectives. *European Journal of Work and Organizational Psychology*, Vol. 5, Issue 1, pp. 4–5.

One method to improve the organisational innovativeness is by focusing on the staff members' individual ability to innovate,³¹ but research on innovative work behaviour (IWB) remains relatively underdeveloped.³² For Singh/Sarkar (2012), innovative behaviour of employees represents a vital resource for organisational sustainability and development.³³ In particular, de Jong/den Hartog (2010) stress that researchers and practitioners consider innovative work behaviour as crucial for the organisational success, but the precise measurement of the latent variable (construct) is still at an early stage.³⁴ Janssen (2000) defines innovative work behaviour „as the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization.“ Based on that definition, innovative work behaviour examines the intentional efforts of staff members to generate novelties in a business environment. Consequently, innovative work behaviour can contribute to a better functioning of the company.³⁵ De Jong/den Hartog (2010) outline that innovative work behaviour can be divided into different dimensions which are connected along the innovative process. In this respect, De Jong/den Hartog (2010) distinguish between four dimensions of innovative work behaviour and define them as idea exploration, idea generation, idea championing, and idea implementation.³⁶ The following figure illustrates the construct of innovative work behaviour.



Source: De Jong/Den Hartog, 2010, p. 30

Figure 1. Construct of Innovative Work Behaviour (IWB)

³¹ De Jong, J. P. J., Den Hartog, D. N. (2007), How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, Vol. 10, Issue 1, p. 41.

³² Wolfe, R. A. (1994), Organizational Innovation: Review, Critique and Suggested Research Directions. *Journal of Management Studies*, Vol. 31, Issue 3, p. 405.

³³ Singh, M., Sarkar, A. (2012), The Relationship Between Psychological Empowerment and Innovative Behavior. A Dimensional Analysis with Job Involvement as Mediator. *Journal of Personnel Psychology*, Vol. 11, Issue 3, p. 127.

³⁴ De Jong, J. P. J., Den Hartog, D. N. (2010), Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, Vol. 19, Issue 1, p. 23.

³⁵ Janssen, O. (2000), Job demands, perceptions of effort–reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, Vol. 73, Issue 3, p. 288.

³⁶ De Jong, J. P. J., Den Hartog, D. N. (2010), Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, Vol. 19, Issue 1, p. 24.

According to Scott/Bruce (1994), the process-related point of view of individual innovation starts by recognising a problem followed by the development of possible solutions. The solutions can be either novel or adapted by the staff member. In the next phase, the employee is searching for other individuals who support the idea and tries to establish a coalition of proponents. The final step in the innovation process entails the implementation of the idea in practice.³⁷

The concept of innovative work behaviour can be fostered through active learning and practicing.³⁸ Besides, a study performed by Prieto/Pérez-Santana (2014) shows that high-involvement in human resource practices in the ability-enhancing and opportunity-enhancing domains are connected with innovative work behaviour and boost working conditions in which support from the management and from colleagues affects the development and appreciation of staff members' ideas. Ability-enhancing human resource practices deal with both choosing employees, as well as training whereas opportunity-enhancing human resource practices focus on improving the job design and involvement practices.³⁹ By considering age and tenure of staff members, research conducted by Ng/Feldman (2013) did not find a relationship between these observed variables and innovation-related behaviour. The research results are still important because it shows that older and more experienced staff members are not less innovative. Following that, older and longer-tenured employees are as innovative as their younger colleagues.⁴⁰ Sameer (2018) found that innovative behaviour positively correlates with satisfaction and engagement and recommends placing more emphasis on the staff members' creativity and innovative behaviour to boost the organisational success.⁴¹ The meta-analysis from Hammond et al. (2011) found that

³⁷ Scott, S. G., Bruce, R. A. (1994), Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace. *The Academy of Management Journal*, Vol. 37, Issue 3, pp. 581–582.

³⁸ Niu, H.-J. (2014), Is innovation behaviour congenital? Enhancing job satisfaction as a moderator. *Personnel Review*, Vol. 43, Issue 2, p. 291.

³⁹ Prieto, I. M., Pérez-Santana, M. P. (2014), Managing innovative work behavior: the role of human resource practices. *Personnel Review*, Vol. 43, Issue 2, p. 200.

⁴⁰ Ng, T. W. H., Feldman, D. C. (2013), A meta-analysis of the relationships of age and tenure with innovation-related behaviour. *Journal of Occupational and Organizational Psychology*, Vol. 86, Issue 4, p. 602.

⁴¹ Sameer, Y. M. (2018), Innovative behavior and psychological capital: Does positivity make any difference? *Journal of Economics and Management*, Vol. 32, Issue 2, pp. 90, 94.

individual factors, job characteristics as well as contextual variables are central factors in better understanding creativity and innovation at work.⁴²

Similarly, a research study conducted by Bysted (2013) indicates that job satisfaction and mental involvement show a positive moderating effect on innovative work behaviour. Moreover, it could be examined that job satisfaction positively affects the relationship between innovation trust and innovative work behaviour. Consequently, staff members who are satisfied with their jobs demonstrate a broader range of novel ideas. In addition, mental involvement moderates job autonomy on innovative work behaviour and fosters the overall innovative job performance. Following that, staff members who are mentally involved show a higher effectiveness in using their time to produce innovative results. Bysted (2013) derives that managers on all levels need to raise awareness for innovation and develop conditions in which staff members are not afraid of developing new ideas.⁴³ Moreover, Tierney/Farmer/Graen (1999) found that staff members who enjoy creativity-related tasks show a higher level of innovative output. Furthermore, employees who work together with their supervisors and have a similar intrinsic motivational direction, increase their creative outputs as well.⁴⁴ Miron/Erez/Naveh (2004) found in their empirical study that innovation performance is determined by three components that include creativity and initiative, creativity and innovative culture, and initiative and innovative culture. Thus, creativity alone is not a sufficient factor for innovative performance.⁴⁵ Ramamoorthy et al. (2005) found that job design and autonomy of employees have strong impact on innovative work behaviour.⁴⁶

From the organisational point of view, Gundry et al. (2016) researched that employees who feel committed to the company produce higher innovation outcomes. In particular, organisational commitment caused

⁴² Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., Zhao, X. (2011), Predictors of Individual-Level Innovation at Work: A Meta-Analysis. *Psychology of Aesthetics, Creativity, and the Arts*, Vol. 5, Issue 1, p. 102.

⁴³ Bysted, R. (2013), Innovative employee behaviour – The moderating effects of mental involvement and job satisfaction on contextual variables. *European Journal of Innovation Management*, Vol. 16, Issue 3, pp. 280–281.

⁴⁴ Tierney, P., Farmer, S. M., Graen, G. B. (1999), An Examination of Leadership and Employee Creativity: The Relevance of Traits and Relationships. *Personnel Psychology*, Vol. 52, Issue 3, p. 612.

⁴⁵ Miron, E., Erez, M., Naveh, E. (2004), Do personal characteristics and cultural values that promote innovation, quality, and efficiency compete or complement each other? *Journal of Organizational Behavior*, Vol. 25, Issue 2, p. 192.

⁴⁶ Ramamoorthy, N., Flood, P. C., Slattery, T., Sardessai, R. (2005), Determinants of Innovative Work Behaviour: Development and Test of an Integrated Model. *Creativity and Innovation Management*, Vol. 14, Issue 2, p. 148.

administrative and technical innovations.⁴⁷ For Galbraith (1982), organisations need to be designed in such a way that structures, processes, rewards, and employees are combined in order to develop innovations. Consequently, organisations need to fulfil two tasks, the operating and innovating function. The ideas developed in the innovating organisations need to be implemented and transferred in the operating organisation to generate innovation.⁴⁸

Yuan/Woodman (2010) conducted a study to research how the expected outcomes of employees influence work innovations. The results indicate that expectations for potential performance and image consequences have a significant impact on the staff members' innovative work behaviour. Following that, employees demonstrate a higher level of innovativeness if they anticipate and perceive that this behaviour is beneficial for their work. In contrast, potential image risks and unfavourable social impressions negatively affected the innovative behaviour at work.⁴⁹ Moreover, research by Basu/Green (1997) demonstrates that the exchange quality between leaders and followers positively affect the innovative behaviour.⁵⁰ In this respect, De Spiegelaere et al. (2014) could research in their study that job insecurity has a negative impact on the innovative work behaviour of staff members. In contrast, staff members who receive a high level of autonomy show a positive relation with innovative work behaviour. Following that, job insecurity is a fundamental factor that limits the possibility to demonstrate innovative work behaviour.⁵¹

Janssen (2005) conducted an empirical study to examine how the relationship between leaders and followers affects the innovative work behaviour. Results indicate that staff members are more likely to demonstrate innovative work behaviour when leaders show appreciation and support for innovation. In particular, the findings suggest that employees consider

⁴⁷ Gundry, L. K., Muñoz-Fernandez, A., Ofstein, L. F., Ortega-Egea, T. (2016), Innovating in Organizations: A Model of Climate Components Facilitating the Creation of New Value. *Innovating in Organizations*, Vol. 25, Issue 2, p. 232.

⁴⁸ Galbraith, J. R. (1982), Designing the Innovating Organization. *Organizational Dynamics*, Vol. 10, Issue 3, pp. 5–6.

⁴⁹ Yuan, F., Woodman, R. W. (2010), Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, Vol. 53, Issue 2, pp. 334–335.

⁵⁰ Basu, R., Green, S. G. (1997), Leader-Member Exchange and Transformational Leadership: An Empirical Examination of Innovative Behaviors in Leader-Member-Dyads. *Journal of Applied Social Psychology*, Vol. 27, Issue 6, p. 489.

⁵¹ De Spiegelaere, S., Van Gyes, G., De Witte, H., Niesen, W., Van Hootegem, G. (2014), On the Relation of Job Insecurity, Job Autonomy, Innovative Work Behaviour and the Mediating Effect of Work Engagement. *Creativity and Innovation Management*, Vol. 23, Issue 3, p. 326.

their superiors as key actors who have the power to support or reject further innovative developments. The perception of staff members of how leaders respond to novel ideas and how they use their power to influence the project has significant impacts on the demonstration of the staff members' innovative work behaviour.⁵²

Montani/Battistelli/Odoardi (2015) researched motivational dynamics that underlie individual innovativeness. In particular, research shows how proactive goal generation affects the innovative work behaviour. The findings support the hypothesis that proactive goal generation is a strong predictor of innovative work behaviour.⁵³ For Basadur (2004), the most effective leaders aim at supporting staff members, as well as teams and include their differing styles through a process of creativity that entails the discovery and definition of working related issues, solving emerging problems, and implementing these solutions in work practice. Dealing with creative solutions enables leaders to foster the organisational performance significantly.⁵⁴ Research conducted by Elkins/Keller (2003) shows that leading groups does not solely mean focusing on staff members. It is recommended spanning boundaries with constituents outside the projects such as with other managers, marketing professionals and customers.⁵⁵ By examining different leadership styles affecting the innovativeness of staff members, Lee (2008) found that transformational leadership has a positive and significant impact on the innovativeness of employees whereas transactional leadership shows an inverse relation with innovativeness.⁵⁶ Similarly, Gumusluoğlu/Ilsev (2009) could provide support for the hypothesis that transformational leadership has positive impacts on the overall organisational innovation for micro- and small-sized companies.

⁵² Janssen, O. (2005), The joint impact of perceived influence and supervisor supportiveness on employee innovative behaviour. *Journal of Occupational and Organizational Psychology*, Vol. 78, Issue 4, p. 578.

⁵³ Montani, F., Battistelli, A., Odoardi, C (2015), Proactive Goal Generation and Innovative Work Behavior: The Moderating Role of Affective Commitment, Production Ownership and Leader Support for Innovation. *Journal of Creative Behavior*, Vol. 51, Issue 2, p. 120.

⁵⁴ Basadur, M. (2004), Leading others to think innovatively together: Creative leadership. *The Leadership Quarterly*, Vol. 15, Issue 1, p. 103.

⁵⁵ Elkins, T., Keller, R. T. (2003), Leadership in research and development organizations: A literature review and conceptual framework. *The Leadership Quarterly*, Vol. 14, Issues 4–5, p. 601.

⁵⁶ Lee, J. (2008), Effects of leadership and leader-member exchange on innovativeness. *Journal of Managerial Psychology*, Vol. 23, Issue 6, p. 678.

Moreover, external support for innovation moderated the relationship between transformational leadership style and organisational innovation.⁵⁷

Development and calculation of the structural equation modelling of the relationship between leader attitudes and innovative work behaviour of employees in real estate development companies

Structural equation modelling (SEM) is a statistical method that is frequently applied in business and social science research to model latent variables (constructs), to consider different types of measurement errors and to examine theories.⁵⁸ In particular, SEM can be described as multivariate technique with the ability to analyse linear and/or causal relationships between exogenous and endogenous latent variables underlying simultaneous, multiple equation estimation procedures. Consequently, the execution of SEM may contribute to moving theories to new and higher levels of understanding of human behaviours.⁵⁹ For the underlying research, the author uses the partial least squares structural equation modelling (PLS-SEM) that represents a more regression based procedure to reduce the residual variances of the exogenous latent variables. Comparing the partial least squares structural equation modelling with the covariance based structural equation modelling, the PLS-SEM is considered to be more robust, operates well with small and large sample sizes and is able to include reflective and formative indicators for measuring the constructs.⁶⁰

Northouse (2016) already pointed out that the trait approach fails to delimit a concrete list of leader attitudes. Although leadership studies have been conducted over decades, the list of traits seems to be endless.⁶¹ Therefore, the author performed a content analysis to identify attitudes of leaders that are considered to be vital in leadership. The results show that

⁵⁷ Gumusluoğlu, L., Ilsev, A. (2009), Transformational Leadership and Organizational Innovation: The Roles of Internal and External Support for Innovation. *Journal of Product Innovation Management*, Vol. 26, Issue 3, p. 273.

⁵⁸ Henseler, J., Hubona, G., Ray, P. A. (2016), Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, Vol. 116, Issue 1, p. 2.

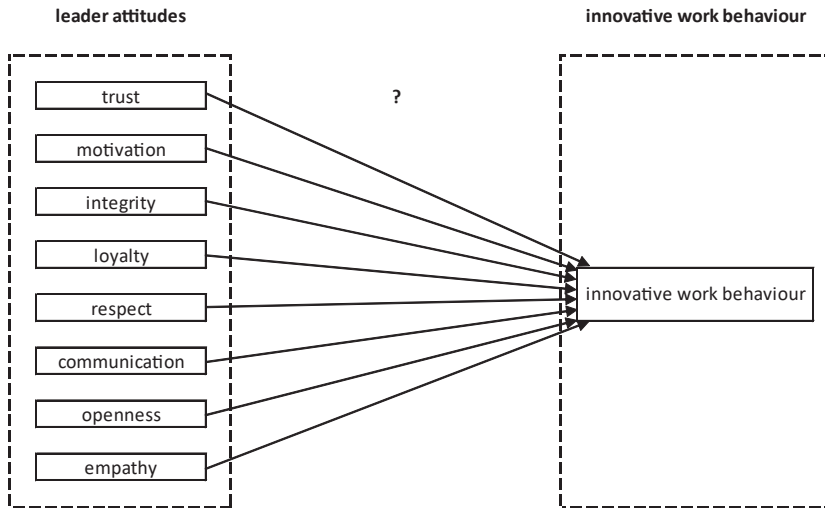
⁵⁹ Babin, B. J., Svensson, G. (2012), Structural equation modeling in social science research. Issues of validity and reliability in the research process. *European Business Review*, Vol. 24, Issue 4, p. 321.

⁶⁰ Hair, J. F., Ringle, C. M., Sarstedt, M. (2011), PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, Vol. 19, Issue 2, p. 143.

⁶¹ Northouse, P. G. (2016), *Leadership. Theory and Practice*. Seventh Edition, Thousand Oaks, Sage Publications, pp. 30–31.

trust, motivation, loyalty, respect, communication, openness, and empathy are leader attitudes that are most discussed in the literature.⁶² Consequently, the author defines the identified leader attitudes as independent latent variables for this research. Again, the aim of this research is to examine how attitudes of leaders towards their staff members affect the innovative work behaviour in real estate development companies.

The following figure shows the research model with eight independent latent variables (leader attitudes) and one dependent latent variable (innovative work behaviour).



Source: author's compilation

Figure 2. Research Model

In total, 137 employees from eight different countries working in real estate development companies fully answered the questionnaire. The survey was available both online as well as paper-based. The analysis of the participants shows that 56% are male and 44% are female. Moreover, 37% of the employees were between 26 years and 35 years followed by 29% of employees who show an age span between 36 years and 45 years. In addition, most participants had a work experience between four and six years.

⁶² Lauck, R. (2019), Content Analysis: Identification of Leader Personality Traits Affecting the Innovative Work Behaviour. *Proceedings of IAC in Vienna 2019*, p. 191.

Measures and assessment of PLS-SEM

To measure the latent variables in this research model, the author used and modified indicators from previous studies. In this respect, a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree was applied.

Research shows that 5-point Likert scales reduce the frustration level of the participants and increase the response rates and quality of answering the questions.⁶³ In this respect, Likert (1932) points out that both extremes of attitudes are covered consistently with this scale.⁶⁴

The leader attitude “trust” was measured by using ten modified items from McAllister (1995).⁶⁵ The participants were asked to evaluate the relationship with their immediate leader. Cronbach’s Alpha amounted to $\alpha = .91$ for this scale.

Integrity was measured with five indicators from Adams/Sartori (2006)⁶⁶ with a Cronbach’s Alpha of $\alpha = .91$. Next, openness of leaders towards staff members was measured with eight items from Wood/Winston (2007)⁶⁷ showing an internal consistency of $\alpha = .86$. Besides, the leader attitude “respect” was measured with five items developed by van Quaquebeke/Brodbeck (2008)⁶⁸ with a Cronbach’s Alpha of $\alpha = .77$. Communication between leaders and employees was determined by four modified items from Chen/Paulraj (2004)⁶⁹ showing a Cronbach’s Alpha of $\alpha = .86$. The leader attitude “loyalty” was measured by a modified scale including three items from Liden/Maslyn (1998)⁷⁰ with a Cronbach’s

⁶³ Sachdev, S. B., Verma, H. V. (2004), Relative Importance of Service Quality Dimensions: A Multisectoral Study. *Journal of Services Research*, Vol. 4, Issue 1, p. 104.

⁶⁴ Likert, R. (1932), A Technique for The Measurement of Attitudes. *Archives of Psychology*, Vol. 22, p. 46.

⁶⁵ McAllister, D. J. (1995), Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations. *The Academy of Management Journal*, Vol. 38, Issue 1, p. 37.

⁶⁶ Adams, B. D., Sartori, J. A. (2006), Validating the trust in teams and trust in leaders. *Humansystems Incorporated*, p. 41.

⁶⁷ Wood, J. A., Winston, B. E. (2007), Development of three scales to measure leader accountability. *Leadership & Organization Development Journal*, Vol. 28, Issue 2, p. 178.

⁶⁸ Van Quaquebeke, N., Brodbeck, F. C. (2008), Entwicklung und erste Validierung zweier Instrumente zur Erfassung von Führungskräfte-Kategorisierung im deutschsprachigen Raum. *Zeitschrift für Arbeits- u. Organisationspsychologie*, Vol. 52, p. 80.

⁶⁹ Chen, I. J., Paulraj, A. (2004), Towards a theory of supply chain management: the constructs and measurements. *Journal of Operations Management*, Vol. 22, Issue 2, p. 141.

⁷⁰ Liden, R. C., Maslyn, J. M. (1998), Multidimensionality of Leader-Member Exchange: An Empirical Assessment through Scale Development. *Journal of Management*, Vol. 24, Issue 1, p. 56.

Alpha of $\alpha = .84$. Next, motivation was evaluated with three indicators adapted from Gagné et al. (2010)⁷¹ showing a Cronbach's Alpha of $\alpha = .91$. The last leader attitude "empathy" was measured with six modified items from Kellett/Humphrey/Sleeth (2002)⁷² and shows a Cronbach's Alpha of $\alpha = .88$. The depended latent variable "innovative work behaviour" was captured with eight adapted items from de Jong/den Hartog (2010)⁷³ showing a Cronbach's Alpha of $\alpha = .85$. Moreover, the research results do not show issues with the composite reliability as all computed values exceed the minimum cut-off value of .60.⁷⁴

In addition, convergent validity was assessed by computing the average variance extracted (AVE). The calculated values range from .50 until .85. The latent variables explain at least more than half of the variance of its items.⁷⁵

Next, as traditional approaches such as the Fornell-Larcker criterion performed poorly and did not reliability detect discriminant validity issues in simulation studies performed by Henseler/Ringle/Sarstedt (2015), the heterotrait-monotrait ratio of correlations (HTMT) was computed.⁷⁶ The results show no issues with the discriminant validity as the computed values for all constructs do not exceed the cut-off value of .90.⁷⁷

To analyse collinearity issues, the variance inflation factor (VIF) was computed.⁷⁸ The results indicate no issues with collinearity as the values

⁷¹ Gagné, M., Forest, J., Gilbert, M. H., Aubé, C., Morin, E., Malorni, A. (2010), The Motivation at Work Scale: Validation Evidence in Two Languages. *Educational and Psychological Measurement*, Vol. 70, Issue 4, p. 641.

⁷² Kellett, J. B., Humphrey, R. H., Sleeth, R. G. (2002), Empathy and complex task performance: two routes to leadership. *The Leadership Quarterly*, Vol. 13, Issue 5, p. 540.

⁷³ De Jong, J., Den Hartog, D. (2010), Measuring Innovative Work Behaviour. *Creativity and Innovation Management*, Vol. 19, Issue 1, p. 29.

⁷⁴ Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Richter, N. F., Hauff, S. (2017), *Partial Least Squares Strukturgleichungsmodellierung (PLS-SEM). Eine anwendungsorientierte Einführung*. Vahlen Verlag, München, p. 97.

⁷⁵ Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications, Thousand Oaks, p. 103.

⁷⁶ Henseler, J., Ringle, C. M., Sarstedt, M. (2015), A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, Vol. 43, p. 124.

⁷⁷ Ibid., p. 129.

⁷⁸ Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications, Thousand Oaks, p. 124.

do not exceed the threshold of ten.⁷⁹ A further criterion can be found in the coefficient of determination (R^2) to evaluate the explained variance of the exogenous latent variable in structural model. The underlying research model shows an R^2 of .35 and is considered to be medium for the target construct.⁸⁰

Results

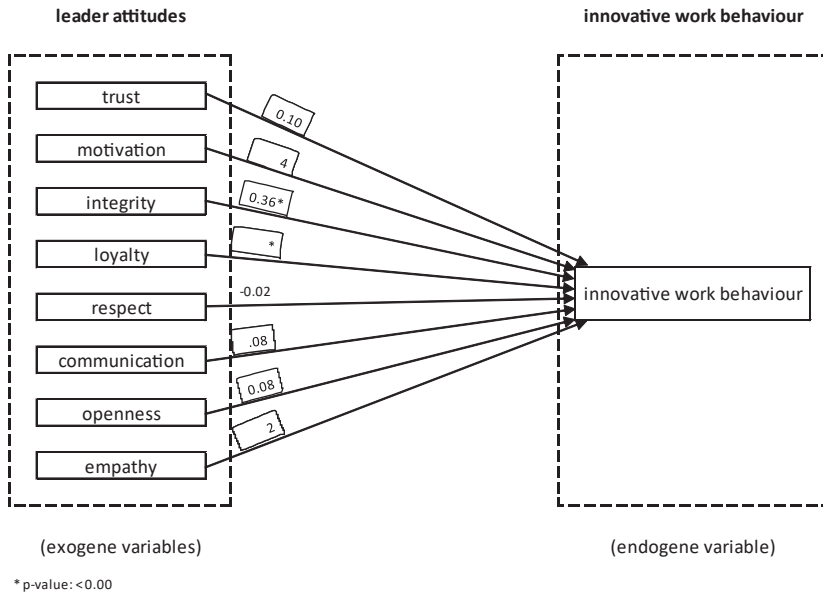
The bootstrapping procedure calculates amongst other values the path coefficients and p-values for the latent variables.⁸¹ In this respect, the author defines 5% ($\alpha = 0.05$) as critical value for the significance level. The following figure three illustrates the standardised path coefficients and p-values of the relationship between the independent variables (leader attitudes) and depended variable (innovative work behaviour) of staff members working in real estate development companies computed with SmartPLS.

In particular, the results show that the leader attitudes integrity (p-value = 0.002) and loyalty (p-value = 0.001) have a significant impact on the innovative work behaviour of employees in real estate development companies. By comparing both leader attitudes integrity and loyalty, the standardised path coefficient for loyalty (0.44) demonstrates a stronger relationship with innovative work behaviour compared to integrity (0.36).

⁷⁹ Marquardt, D. W. (1970), Generalized Inverses, Ridge Regression, Biased Linear Estimation, and Nonlinear Estimation. *Technometrics*, Vol. 12, Issue 3, p. 610.

⁸⁰ Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications, Thousand Oaks, p. 198.

⁸¹ Willaby, H. W., Costa, D. S. J., Burns, B. D., MacCann, C., Roberts, R. D. (2015), Testing complex models with small sample sizes: A historical overview and empirical demonstration of what Partial Least Squares (PLS) can offer differential psychology. *Personality and Individual Differences*, Vol. 84, p. 74.



Source: author's compilation

Figure 3. Research Model with Results

Consequently, the research results show that certain leader attitudes have a higher impact on innovative work behaviour than others. Based on these findings it can be highlighted that the trait approach to leadership is still relevant for management science. Although the author did not distinguish between different situations, the research results show a consistent picture. Moreover, it confirms the assumption of the author that real estate development companies are organisations (open systems) that require constant improvements ranging from the idea development until the construction of the property.

Conclusions, recommendations to leaders and scientists and further research

The underlying study is a first systematic attempt to examine the relationship between leader attitudes and innovative work behaviour of staff members working in real estate development companies. Based on the literature review and empirical research results from the structural equation modelling, the following conclusions can be drawn including recommendations to leaders and scientists. Moreover, the author offers

suggestions for further research to broaden the understanding of the complex research areas leadership and innovation management:

1. Innovation management and leadership are topics of high interest to scholars for decades. This research shows that leader attitudes are a mechanism to foster the innovative work behaviour of employees in real estate organisations to remain competitive on the market.
2. In particular, research results indicate that integrity and loyalty have a significant impact on the innovative work behaviour of employees in real estate development companies. Consequently, leaders who show integrity and loyalty towards their staff members boost the overall success and innovativeness of the entire organisation.
3. In addition, innovative work behaviour is a multidimensional latent variable that follows certain sequences of steps ranging from the idea development until the implementation. Real estate development companies are open systems that benefit from innovative work behaviour as each project and construction is individual which requires a constant improvement of the processes along the entire value chain.
4. Therefore, leaders need to create an environment in which staff members have the opportunity to generate novel ideas. It becomes obvious that generating innovative work behaviour requires additional time and embodies an extra role.
5. It is recommended that leaders determine their current leadership attitudes and put emphasize on leading with loyalty and integrity to boost the organisational innovativeness and success. In addition, workshops and trainings can help leaders to improve their leadership skills.
6. Granting financial and non-financial incentives to employees who successfully showed innovative work behaviour with appropriate results is recommended.
7. From the organisational perspective, companies need to consider the topic of innovation in their organisational structure explicitly. A company culture, a frequent exchange between different departments, and sufficient time are needed to develop novel ideas.
8. Furthermore, future research is essential to examine how culture affects the relevance of leader attitudes in affecting the staff members' innovative work behaviour.
9. Moreover, the trait approach to leadership suffers under inconsistent measurements of the latent variables (leader attitudes) as researchers started to combine or mixing up traits. Therefore, researchers are advised to thoroughly distinguish between leader attitudes to make results comparable.

10. Finally, additional research is essential if groups of staff members require different leader attitudes than single staff members to be more innovative at work.

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E-COMMERCE IN NIGERIA: BENEFITS AND CHALLENGES

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Abstract

E-commerce activities in Nigeria are rapidly growing as a result of vast improvements in telecommunication services. And e-banking is one area of e-commerce that has proven successful in Nigeria. The growth of internet users from year 2000 to 2019 is sporadic as it recorded 73% growth rates. This study explores the benefits of e-commerce and the challenges of e-commerce that inhibit its successful operation in Nigeria. Survey research was adopted for this study. The questionnaire was designed and administered randomly to 1200 respondents. Collected data were analysed using Statistical Package for Social Science (SPSS). The findings indicate that the major benefits of e-commerce adoption in Nigeria are increased sales, competitive advantage, customer loyalty, increased automation of processes, extended application of new technology, better knowledge management, and enhanced well-being and education of customer. The key challenges identified in the Nigerian context include power outages and frequent power interruption, insecurity, technology cost, lack of trust in web retailers, software compatibility, and acquisition of IT skilled personnel. The study recommends, among other issues, the need for adequate publicity on e-commerce with emphasis on e-shopping, e-banking, and e-business.

Keywords: Nigeria, e-commerce, benefits, challenges, Internet

Introduction

E-commerce is the use of the internet for marketing, identification, payment and delivery of goods and services. Through the e-commerce technology, the internet has revolutionised the mode of business transactions by providing customers with the ability to bank, invest, purchase, distribute, communicate, explore and research from virtually anywhere, anytime where there is internet access (Anup, 1997; Ayo, Adewoye & Oni, 2011). Economic offers a level playing ground for large businesses, as well as small and medium-scale enterprises (SMEs) to operate in the global marketplace, and for regional businesses and communities

to participate in social, economic and cultural networks seamlessly across international boundaries (Mary-Anne, 1988). However, with the paradigm shift in the mode of operation occasioned by the advent of the internet, global corporations now operate with much consistency and at reduced cost of transactions as if the entire world were a single entity. In Nigeria, the internet business is taking on a serious dimension in the country especially within the more commercial states of the nation.

A lot of start-ups are springing up within the cyber space and each one is targeting the over 40 million internet users in the country. At present, Jumia and Konga are the 'Beasts' of e-commerce in Nigeria (Babatunde, 2013). In the business-to-business world, buyers previously faced a number of obstacles to getting the best deal: suppliers were distant, research time was scarce, and intermediaries controlled most of the information. Presently, Web-based companies are becoming the new intermediaries, the conduit between producers and buyers. The benefits of e-commerce include customer loyalty, the speed of access, reduced costs of operation, transformation of traditional market chain, acquisition of a niche market, business efficiency, increased automation of process, retained and expanded customer base, enhancing well-being and education of customers. However, the growth of e-commerce in Nigeria is affected by accessibility, privacy and confidentiality, establishing cost, data security, network reliability, credit card threat, citizens' income and education, authenticity, cyber crime, poor technological infrastructures and fear of inadequate security in online environments (Ayo, 2011). This study therefore aims at two major objectives, first to examine to benefits of e-commerce in Nigeria and second its challenges. Also, the study recommends among others the need for adequate publicity on e-commerce with emphasis on e-shopping, e-banking and e-business.

Conceptual Framework

Till (1998) affirms that e-economic covers any form of business or administrative transaction or information exchange that is executed using any information and communications technology (ICT). The Organization for Economic Cooperation and Development (OECD) defines e-economic as a new way of conducting business, qualifying it as business occurring over network which use non-proprietary protocols that are established through an open standard setting process such as the internet. According to Kinder (2007), e-economic refers to as commercially purposive systems or processes of search assessment and transactions, including post transaction interactions, enabled and supported by information and communications technologies. Andam (2003) sees e-economics as the use of electronic

communications and digital information processing technology in business transaction to create, transform, and redefine relationships for value creation between or among organisations, and between organisations and individuals. In the words of Lawal and Ogbu (20015), e-economics involves conducting business using modern communication instrument such as telephone, fax, e-payment, money transfer systems, e-data inter-change and the internet.

According to Kuliya (2015), e-economic encompass marketing and selling over the internet (e-retailing), business-to-business electronic data inter change (EDI), conducting research and seeking information, emailing and computer faxing, internal information networks for employees, and ensuring the security of online transactions and information transfers. Business types included among the case studies are business-to-customer (B2C), business-to-business (B2B), online or virtual business, storefront (bricks and mortar) businesses with Internet sales or purchases, and home based businesses. Chaitthralaxmi and Shruthi (2016) asserts that e-economic is a concept covering any form of business transaction or information exchange executed using information and communication technology between companies and public administration. In a nutshell, e-economics may, however, be simply defined as the buying and selling of products and services via telecommunication networks.

The term e-commerce usually is used interchangeably with e-business but they are distinct concepts. According to Andam (2003), in e-economics, information and communication technology (ICT) is used in inter-business or inter-organisational transactions (transactions between and among organisations) and in business-to-consumer transactions (transactions between firms/organisations and individuals). In e-business, on the other hand, information and communication technology (ICT) is used to enhance one's business. It includes any process that a business organisation (either for-profit, government or non-profit entity) conducts over a computer-mediated network. A more comprehensive definition of e-business is "the transformation of an organization's processes to deliver additional customer value through the application of technologies, philosophies and computing paradigm of the new economy" (Ibrahim & Abubakar, 2015:2). In applauding Jumia.com for organising the first e-economics conference in Nigeria, Omobola (2012) noted that the ICT industry had become the primary driver of growth in the Nigeria economy, and commended the likes of Jumia.com who have pioneered online retail trade in Nigeria. She posits further, that the e-economics industry had continued to receive a boost in Nigeria, which has shown that it is possible for Nigerians to run such a business model within our shores. She concluded that e-economics, if well harnessed will drive local

content development in the country and urged enterprises like Jumia.com to provide the platform for start-up, small and medium enterprises to leverage and grow their businesses.

Generally, e-economics can be broken down into two branches. These are: e-merchandise and e-finance:

E-merchandise: Selling goods and services electronically and moving items through distribution channels, for example, through internet shopping for groceries, hardware, gifts tickets, music, cloths, book, etc.

E-finance: Debit cards, smart cards, banking machines, telephone and internet banking, financial service and mortgages online, etc.

Moreover, a company's Web page can make it easy or hard for the customer to get the information leading to a purchase. As some have learned the hard way, it is not enough to simply take images that are successful in print and place them on the Web, for each medium has its own characteristics. Therefore, the design of the company's web site has a companywide impact. For example, if a customer on the web can verify that an item is available, the chances of closing the sale are increased. More so, if a customer can find out the expected delivery date of the product and the means, the chances of a sale are increased even more. In this scenario, front-and back-end operations touch, and delivering the products is still key to success. Nonetheless, customers still want speed, convenience, quality, and good service. In this regard, the web is no different from conventional stores and catalogues. Customers ultimately will cast their votes for the companies that provide the best product experience whether they see the product on the web or can touch it in stores (Bateman & Snell, 2011).

Farooq (2001) reported that the enormous flexibility of the internet has made possible what is popularly called e-commerce, which has made inroads in the traditional method of business management. In fact, under the impact of the web, businesses are seeing as realignment of the traditional relationships among producers, wholesalers, distributors, and retailers. All facts of business tradition with which we are accustomed in physical environment can now be executed over the internet including online advertising, ordering, publishing banking, investment, auction and professional services (Lawal & Ogbu, 2015). To reduce printing costs and make documents widely available companies are digitizing information. In some instances, they are posting it on the Web. Different people residing in distant places can view the same information. Still, digitizing information is not without its obstacles. Not all people have the same hardware and software used for viewing and printing out information. In addition, miscommunications can occur that otherwise might not if all employees were working under one roof. Companies must take these

circumstances into account when deciding how to make use of the web, for the decisions that affect each of the company's functioning units.

E-commerce, however, has not been widely tapped into in Nigeria. Many Nigerians still treat its benefits with deep scepticism. First, posting certain kinds of information does not usually cause problems. For example, providing company addresses, phone numbers, hours of operation, and the like, is more economically done on the web or over the Internet. However, supplying other types of information, however, might not be as free of repercussions as in the preceding examples. Depending on whether the company is a business-to-business or a business-to-consumer operation, buyers will want product information, forms and terms of payment, special sales, return policies, status of an order, shipping rates and turnaround, possibility of changing a current order, tracking information, etc. providing and maintaining only one piece of this information, for example, change in an order, affects at least three departments: accounting, marketing and distribution. Each department supplying in information must be aware of the consequences of making the information available and have a mechanism for handing changes otherwise the situation would have resulted to fear of inadequate security in online environment. Coordination becomes an issue as well. For example, charges to a credit-card account must not occur before the merchandise is shipped. Whether selling to another business or to consumers, online operation requires new networks. Other reasons why many Nigerian still treat e-commerce benefits with deep scepticism include high rate of illiteracy, high cost of internet, fear of risk and frequent power interruption. E-commerce in Nigeria covers three main types of transactions, e.g. business-to-business (B2B), business-to-consumer (B2C), and Business-to-government (B2G).

E-commerce Development in Nigeria

In view of the importance attached to e-commerce, the Federal Government of Nigeria through her various agencies came up with various institutional arrangement to sanitise the finance sector of the economy, check the tide of fraudulent practices in the country and to check the financial malpractice of banks. The following are some of the major efforts made by the Nigerian government to promote the development of e-commerce in Nigeria:

Legislative Efforts: The government of Nigeria instituted a number of regulatory measures to sanitize the finance sector of the economy, such as the Independent Corrupt Practices Commission (ICPC) Act of 1999; the national Drug Law Enforcement Agency (NDLEA) Act of 1989; the Money laundering Act of 1995; the Failed Bank (recovery of debt and financial

malpractice of banks) Act of 1994. They were set up to check the tide of fraudulent practices in the country. The other bodies instituted to check the menace of fraud are the National Cyber Crime Working Group (NCWG), and the Economic and Financial Crimes Commission (EFCC) among others (Lawal & Ogbu, 2015). As part of the efforts to curb the tide of fraudulent practices in the financial institutions in Nigeria, a Nigerian (IT) solutions provider is already in partnership with SAS of South Africa to introduce an anti-money laundering solution for the financial service institutions (Chibueze, 2006) cited in Lawal and Ogbu (2015).

On-Going ICT Projects: These include the mobile internet Units (MIUs) and the WIN project. The mobile internet Units include businesses equipped with ICT facilities such as PCs, VSATs and peripheral devices which are used to carry ICT education to rural areas. The WIN project is a project tagged “Wire Nigeria”. It was intended to provide ICT infrastructure to all the nooks and crannies of the country. The project includes the provision of VSATs to the 774 local governments areas in the country, and the installation of the necessary infrastructures particularly, fibre optic backbone across the nation (Lawal & Ogbu, 2015).

National Policy for Information: The policy formulated in the year 2000 is responsible for the monumental development in the sector. The vision is to make Nigeria an IT capable country in Africa and a key player in the information society. Its primary mission is to “Use IT” for education; creation of wealth; poverty eradication; job creation; governance; health; agriculture etc. (Ajayi, 2005) cited in Lawal and Ogbu (2015). However, in the year 2006, Nigeria was reported as the fastest growing telecoms nation in Africa. According to Iroegbu (2013), e-commerce is growing very rapidly, an estimated volume of about N75 billion was done by e-commerce in Nigeria as at 2012 and if that is current, in another four or five years we will be looking at N160 billion.

Growth of E-commerce in Nigeria

Internet World Start (2014) reported that with a population of over 160 million and an already thriving e-commerce market, Nigeria is becoming a game changer in African e-commerce and that Nigeria’s ICT sector has grown exponentially over the past five years, with the recent implementation of its five year National Broadband plan which will see Nigeria’s broadband internet penetration increasing by 80% by the end of 2018, the country is likely to surpass South Africa’s e-commerce market. At present, Nigeria’s e-commerce industry is significantly growing after the coming of jumia.com in 2001. There are now numerous online retailers such kongka.com; taafoo.com.ng; kamdora.com.ng; kaymu.com.ng; cheki.

com.ng; sunglasses.com.ng; ladiesshowwarehouse.com.ng; mystor.com.ng; olx.com.ng; nutrotechnologies.con.ng; tradestable.com.ng; dealdey.com.ng; oyoyo.com.ng and the likes. According to the Internet World Start (2014), there were 200 000 internet users in Nigeria in the year 2000. By 31 December, 2016, the internet users stood at 86 219 965 representing 46.1% of the total population. This shows an increasing number of users of the internet in Nigeria from 0.1% in 2000 to 46.1% of its population in 2016 as shown in the table below.

Table 1. Internet penetration in different countries in 2016

Country	Internet Users (2016)	Penetration
China	721, 434,547	52.2%
India	462,124,989	34.8%
U.S	286.942,362	88.5%
Brazil	139,111,185	66.4%
Japan	115,111,595	91.1%
Russia	102,258,256	71.3%
Nigeria	86,219,965	46.1%
Germany	71,016,605	88.0%
U.K	60,273,385	92.6%
Mexico	58,016,997	45.1%

Source: Chaithralami and Shruthi (2016)

The above table reveals that e-commerce in Nigeria is fast rising in Africa.

According to Internet World Starts (2017) there were 200 000 internet users less than 1% of the Nation population (precise 0.1%). In the year 2006, the number has grown to 5 000 000 (again just 3.1% of the national population). In 2009, the figure went above double as 23 982 200 million people used internet in Nigeria. By December 2011, the number of internet users in Nigeria has grown to 45 039 911 representing 26.5% of the country's population. By June 20, 2012, the number of internet users has risen to 48 366 711 which is 28.45 of the total population. By December 31, 2013, the internet users have risen to 67 319 186 representing 38.0%. By December 31, 2015, the internet users increased to 92 699 924 representing 51.1% of the total population. By 26 June, 2017, the internet users stood at 96 598 757 representing 53.0% of the total population. This shows an increasing number of users of the internet in Nigeria from 0.1% in 2000 to 53.0% of the total population in 2017 as shows in table 2 below.

Table 2. Internet Usage and Population Growth

Year	Users	Population	%Pen.	Usage Source
2000	200 000	142 895 600	0.1%	ITU
2006	5 000 000	159 404 137	3.1%	ITU
2009	23 982 200	149 229 090	16.1%	ITU
2011	45 039 711	155 215 573	26.5%	ITU
2012	48 366 179	170 123 740	28.4%	ITU
2013	67 319 186	177 155 754	38.0%	ITU
2015	92 699 924	181 562 056	51.1%	IWS
2017	93 598 757	184 611 247	53.0%	NCC

Source: ITU, IWS and NCC

More so, one aspect of e-commerce that has been widely accepted by the Nigerian population is the of e-banking and payment systems. At present, over 90% of Nigerian banks offer online, real-time banking services which allows customers to perform banking transactions from the convenience of their home or offices. The growth of credit/debit cards and ATMs (Automated teller machines) is proof of the country's rapidly developing e-commerce. Nigerians can now pay, withdraw or transfer funds anywhere in the country with the introduction of master card, Visa Card, Inter Swish, and e-transact (Ovia, 2007). However, consumer attitudes to e-commerce goes a long way in determining its survival and sustainability in developing markets and economy at large. Andre Groves (1983) stated that "In the future, all companies will be internet companies". In this framework, e-commerce symbolises the future and the future is here now. In the words of Kinder (2002), business will be e-commerce or no business at all. E-commerce strategy should be crafted around mobile platforms in order to achieve a goal mileage in the interim and a substantial level of market penetration in Nigeria (Ibrahim & Abubakar, 2015).

ICT Impact on the Growth of E-commerce in Nigeria

It is important to state the importance of the ICT as it is the base of the e-commerce platforms. This is due to the fact that ICT or web has been a very useful tool in breaking through different nations and transactions can be done at almost any time irrespective of the various time zones that exist around the world. Therefore, ICT is one of the most crucial determining factors for the growth of e-commerce. The growth of e-commerce requires reliable access to modern technologies which is typically lacking in most developing economies. Kuliya (2015) affirms that

ICT's relevance in the growth of e-commerce cannot be overemphasised because of mobile phones, computers, internet, and so on for us to use in our everyday life. The impact of ICT on the growth of e-commerce in Nigeria are:

- 1) ICT has brought a major paradigm shift in e-commerce in the entire world. It has made access to buying and selling of goods and services less complex and difficult.
- 2) ICT has made e-commerce to become the cheapest means of doing business in Nigeria since costs of trading are lower and there is savings on staff, premises and storage of goods and services.
- 3) ICT has helped businesses in Nigeria in cost savings by using e.g. VOLP instead of normal telephone, e-mail instead of post, video conferencing instead of travelling to meetings, e-commerce web sites instead of sales catalogues.
- 4) ICT enhance efficiency in e-commerce by providing access to new markets or services which in turn create new favourable condition for income generation that can lessen poverty, improve governance, improve per capital income, and reduces unemployment in Nigeria.
- 5) Through the help of ICT, e-commerce can reduce the delivery time by using efficient integrated computer systems which allows buyers to browse a wider selection of Goods and services from their home.
- 6) ICT increases percentage of local content in products and services, utilization of local capacity, increases percentage of domestic value-add and increased opportunities for job creation.

It is however, noteworthy to state that e-commerce activity in Nigeria is steadily growing as a result of vast improvements in telecommunication services.

Advantages and disadvantages of E-commerce

E – Commerce is increasingly viewed as a 'win-win' strategy for businesses and consumers. The following are advantages and disadvantages of e-commerce.

Advantages for Businesses

- Increased potential market share,
- Access to customers data,
- Low-cost advertising,
- Able to process a higher number of orders,
- Low barriers to entries,
- Easy to showcase bestsellers.

Advantages for Consumers

- Reduced prices,
- Less invasive experience,
- Access to global marketplace,
- Easy to scale business quickly,
- 24/7 access.

Disadvantages for Businesses

- Hardware and software
- Is highly competitive,
- Maintenance of website,
- Establishing cost,
- Training and maintenance of competent personnel,
- Website stickiness and customer loyalty,
- Insufficient telecommunication facilities,
- Erratic electric supply.

Disadvantages for Consumers

- There is no guarantee of product quality,
- Unable to examine products personally,
- Online purchasing security issue,
- Network reliability issue,
- Exposure to various forms of cyber crimes.

Benefits of E-Commerce

The E-commerce industry had continued to receive a boost in Nigeria. The uptake of e-commerce is influenced by its potential to create business value and by awareness of its participants of the potential benefits (Salnoske, 1997). A major reason for most companies, irrespective of size, to participate in business is to extract some benefits from it. E-commerce is no different. The benefits of e-commerce identified from the current literature are classified in two main categories- tangible and intangible. Table 3 presents the key benefits as described in the literature.

Table 3. Key benefits of E-commerce

	Tangible Benefits	Research/Literature
1.	Business efficiency	(Riggins, 1999; Fraser, Fraser & McDonald, 2000; Lee, 2001)
2.	Increased automation of processes	(Fraser <i>et al.</i> , 2000; Dan, Dias & Kearney, 2001)
3.	Transformation of traditional market chain	(Fraser <i>et al.</i> , 2000; Kuzic, Fisher & Scollary, 2002)
4.	Retained and expanded customer base	(Fraser <i>et al.</i> , 2000; Tuban, lee, King & Chung, 2000; Rahul, Biju & Abratiam, 2001)
5.	Reduced operation costs	(Kare-silver, 1998; Fergusson, 1999; kent & Lee, 1999; Grover & Ramanlal, 2001)
6.	Acquisition of a niche market	(Riggins, 1999; Rahul <i>et al.</i> , 2001; Kuzic <i>et al.</i> , 2002)
	Intangible Benefits	
7.	Enhancing well-being and education of customers	(Whinston, Stabl & Soon-Yong, 1997; Lee, 2001)
8.	Customer loyalty	(Coulson, 1999; Hoffman, Novak & Perlata, 1999; Lee, 2001)
9.	Competitive advantage	(Kare-silver, 1998; Hoffman <i>et al.</i> , 1999; Kalakota, Oliva & Donath, 1999; Straub, 2000)
10.	Convenient shopping	Winner, 1997; Honnon, 1998. Kuzic <i>et al.</i> , 2002)

In addition, the appearance of e-commerce has transformed the traditional means of shopping and doing business, and this swift acceptance had certainly brought with it more e-commerce business models in Nigeria, and has introduced more competition. The coming of e-commerce has brought opportunities for the future generation of creative young individuals in the country and these individuals will in turn contribute to nation's growth technological. Also, e-commerce enhances the speed and accuracy with which businessmen can share information and this reduces costs of online transaction in Nigeria. Lastly, e-commerce enables the customers to shop at the comfort of their home, office and anyplace where there is internet connectivity (Kuliya, 2015).

Challenges of E-commerce

E-commerce challenges identified from the literature are classified as technological, managerial, and business related and are summarised and presented in Table 4 below.

Table 4. E-commerce challenges identified from the literature

	Challenges	Research/literature
Technological Challenges		
1.	Security	(Alexander, 1998; Czerniawska & Potter, 1998; Koved <i>et al.</i> , 2001)
2.	Web site issues	(Watson, Berthon, Pitt & Zinhan, 1999; Zhang & Von-Dran, 2000; Lee, 2001; Kuzic <i>et al.</i> 2002)
3.	Technology issues including costs, software and infrastructure	(Abeyesekera, Criscuolo, Barreto & Gallapher, 1999; Hoffman <i>et al.</i> , 1999; Rahul <i>et al.</i> , 2001; Kuzic <i>et al.</i> 2002)
Managerial Challenges		
4.	People and organizational issues	(Hoffman <i>et al.</i> , 1999; Feeny, 2000; Kuzic <i>et al.</i> , 2002)
5.	Obtaining senior management backing	(Feeny 2000, Kuzic <i>et al.</i> , 2002)
Business Challenges		
6.	Customer service	(Whinston <i>et al.</i> , 1997; Alter, 1999; Lee, 2001)
7.	Customers' old habits	(Hoffman <i>et al.</i> , 1999; Schwartz, 1999; Kuzic <i>et al.</i> , 2002)
8.	Legal issues	(Lawrence <i>et al.</i> , 1998; Hoffman <i>et al.</i> , 1999; De-Souza & Von Wiese, 2000; Kuzic <i>et al.</i> , 2002)

E-commerce in Nigeria context has numerous challenges and these challenges have impacted negatively to the growth of the economy. Some of these challenges identified in the literature are summarised and presented in table 5 below.

Table 5. E-commerce challenges in Nigeria

	Challenges	Research/ Literature
1.	Power outage and frequent power interruption	(Larossi, Mousley & Radwan, 2009; Kuliya, 2015; Lawal & Ogbu, 2015; Okifo & Igbunu, 2015)
2.	Fear of inadequate security	(Atanbasi, 2010; Kuliya, 2015; Lawal & Ogbu, 2015)
3.	High rate of poverty	(Kunliya, 2015)
4.	High cost of accessing the web	(Kuliya, 2015; Lawal & Ogbu, 2015; Okifo & Igbunu, 2015)
5.	Lack of trust in web retailers	(Ayo <i>et al.</i> , 2011)
6.	Lack of adequate infrastructure	(Okifo & Igbunu, 2015)
7.	Insufficient telecommunication facilities	(Ayo, Ekong, Fatudimu & Adebiji, 2007; Ayo <i>et al.</i> 2011); Lawal & Ogbu, 2015; Olusoji, Ogunkoya & Elumah, 2015)

	Challenges	Research/ Literature
8.	Unreliable last-mile delivery	(Kuliya, 2015; Lawal & Ogbu, 2015)
9.	High rate of illiteracy	(Okifo & Igbunu, 2015)
10.	Lack of seriousness by banks	(Ayo <i>et al.</i> , 2011; Okifo & Igbunu, 2015)
11.	Lack of privacy and confidentiality	(Ayo, 2006; Adeyeye, 2008; Adeshina & Ayo, 2010; Lawal & Ogbu, 2015)
12.	Network reliability issues	(Ayo, 2006; Lawal & Ogbu, 2015)
13.	Authenticity and credit card threat	(Ayo, 2006; Adeshina & Ayo, 2010; Ayo <i>et al.</i> , 2011; Yaqub, Bello, Adenuga & Ogbundeji, 2013)

From the above table, it is obvious that internet penetration is still abysmally low and is one of the major threats to e-commerce implementation in the country. However, companies in Nigeria forge ahead nonetheless in this burgeoning technology, realising that the potential advantages are well worth the temporary discomforts.

Methodology

The survey research method was used in this study. The survey method is used to obtain information from the respondents because it is cost effective and not time consuming. The study employs a questionnaire as the major instrument used to gathered data from respondents. The questionnaire was divided into two sections. The first section consists of demographic profile, internet usage, and online shopping activities of the respondents. The second section consists of the benefits of e-commerce and the challenges of e-commerce that inhibit its successful operation. The data gathered from the questionnaire responses are ordinal and presented on a Likert Scale. The Likert scale is commonly used in business research, because it allows participants to respond with degrees of agreement or disagreement. Participants were asked to rate their encountered benefits and challenges respectively. The study covers six (6) different cities: Edo, Delta, Lagos, Port Harcourt, Abuja and Abia. The simple random sampling technique was used to select the target population. There were 1200 questionnaires randomly administered within six (6) months, 917 were received, and 78 of them were incomplete. The remaining 839 valid and completed questionnaire were used for the quantitative analysis representing 69.9% response rate.

The reliability of the instrument was established through a trial test conducted on 50 respondents who also took part in the study. Cronbach Alpha method was used to establish the internal consistency of the instrument. The result yields a coefficient of 0.83%, which satisfied the general recommended level of 0.70 for the research indicators (Cronbach, 1951)

of the study. The collected data was entered in Microsoft excel 2007 and analysis were done through the aid of Statistical Package for Social Science (SPSS) version 21. The sign test was used to compare the number of positive and negative differences between scores allocated to the same or matched samples. The sign test was computed with alpha 0.05.

Analysis Results

From Table 6 it can be concluded that majority of the respondents are male representing 53.0% while 47.0% were female. 85.0% of the respondents were of ages between 21 to 50 years. 38.9% of the respondents are working in the educational field, 16.4% are involved in one form of trading, 15.8% are in manufacturing industry and 15.4% are civil servants. 68.2% of the respondents holds an NCE, OND, HND, B.Sc. and Post graduate certificate. This revealed that above 68 percent of the respondents are educated and potential users of e-commerce facilities.

Table 6. Demographic Profile

Variable	Frequency	Percentage
Gender		
Male	441	53.0
Female	398	47.0
Total	839	100
Age		
<20	23	2.7
21–30	101	12.0
31–40	363	43.3
41–50	249	29.7
51–60	76	9.1
60+	27	3.2
Total	839	100
Occupation		
Trading	138	16.4
IT	61	7.3
Civil servant	129	15.4
Education	326	38.9
Manufacturing	133	15.8
Others	52	6.2
Total	839	100
Education		
Primary	68	8.1
Secondary	103	12.3
Colleges of education/HOD	147	17.3
B.Sc./HND	274	32.7
Post-graduate	151	18.0
Others	96	11.4
Total	839	100

From Table 7, the internet usage of respondents revealed that 43.6% had fair access to internet, 33.5% access very often and 22.9% always had access to the internet. Public café represented 28.3% of the internet access of the respondents, 30.5% accessed the internet while in the office and 41.2% had private means of connecting to the internet. Online shopping behaviour of respondents indicated that only 42.3% had procured goods online. 66.7% of the respondents visited online shops in a month while 33.3% of the respondent had never visited any online shop. ATM is the dominant payment instrument among respondent representing 28.7% of the respondents.

Table 7. Internet Usage and Online Shopping Activities

Variable	Frequency	Percentage
Frequency of Internet access		
Fairly often	366	43.6
Very often	281	33.5
Always	192	22.9
Total	839	100
Mode of Internet access		
Public café	237	28
Office	256	30.5
Personal	346	41.2
Total	839	100
Have you procured good online?		
Yes	355	42.3
No	484	57.7
Total	839	100
Using internet for shopping activities		
Once a year	112	13.3
Two or three times a year	127	15.1
Monthly	237	28.2
Daily	94	11.2
Not at all	269	32.2
Total	839	100
Online shops visited in a month		
1–5	213	25.4
6–10	128	15.3
11–20	111	13.3
Over 20	108	12.9
None	279	33.3
Total	839	100
Mode of payment		
Master card	191	22.8
Visa card	143	17.0
ATM	241	28.7
Western union	86	10.3
Cash on delivery	135	16.1
Others	43	5.1
Total	839	100

Table 8 indicated that the most achieved benefits included increased sales, competitive advantage, customer loyalty, increased automation of processes, extended application of new technology, better knowledge management, and enhanced well-being and education of customer. The results of the sign test indicated that four benefits that were not correctly anticipated including competitive advantage, reduced operation cost, acquisition of a niche market and reduce inventories.

Table 8. Benefits of E-commerce in Nigeria

No	Benefits	Frequency	Percentage	Sign. T. Signif.
1.	Increase sales	57	6.8	0.58
2.	Competitive advantage	59	7.0	0.000**
3.	Reduced operation costs	49	5.8	0.015**
4.	Customer loyalty	64	7.6	0.073
5.	Business efficiency	55	6.6	0.63
6.	Enhanced skills of employees	56	6.7	0.107
7.	Increased automation processes	61	7.3	0.107
8.	Retained and expanded customer base	53	6.3	1.000
9.	Improved image	49	5.8	0.125
10.	Acquisition of a niche market	56	6.7	0.000**
11.	Secure electronic commerce environment	47	5.6	0.581
12.	Reduced inventories	53	6.3	0.013**
13.	Extended application of new technology	57	6.8	0.508
14.	Better knowledge management	59	7.0	0.772
15.	Enhanced well-being and education of customers	64	7.6	0.668
	Total	839	100	

Table 9 indicated that the most frequent challenges of e-commerce encountered in Nigeria include power outages and frequent power interruption, insecurity, technology cost, lack of trust, software compatibility, and acquiring IT skilled personnel. The results of the Sign Test indicated that the challenges of high rate of poverty, high rate of illiteracy, acquiring IT skilled personnel and customer service were not correctly anticipated.

Table 9. Challenges of E-commerce in Nigeria

No	Challenges	Frequency	Percentage	Sign. T.Signif.
1.	Power outage and frequent power interruption	52	6.2	1.375
2.	Insecurity	65	7.7	1.000
3.	High rate of poverty	31	3.7	0.011**
4.	High rate of illiteracy	47	5.6	0.000***
5.	Technology cost	51	6.0	0.58
6.	Lack of e-commerce infrastructure	30	3.6	1.774
7.	Reliable technology vendor	31	3.7	0.143
8.	Making business known to users	24	2.9	0.815
9.	Lack of seriousness by banks	17	2.0	0.109
10.	Authenticity and credit card threat	34	4.1	1.000
11.	Lack of privacy and confidentiality	34	4.1	0.125
12.	Lack of trust in web retailers	52	6.2	0.813
13.	Acquiring IT skilled personnel	56	6.7	0.000***
14.	Unreliable last mile delivery	22	2.6	0.092
15.	Managing change	33	3.9	0.0625
16.	Obtaining senior management support	21	2.5	0.188
17.	Reaching customers in rural areas	40	4.8	0.092
18.	Current e-commerce legislation	18	2.1	0.096
19.	Dealing with intermediaries	30	3.6	0.518
20.	Software compatibility	52	6.2	0.180
21.	Internet service provider reliability	33	3.9	0.625
22.	Web site issues	21	2.5	0.774
23.	Employee resistance towards e-commerce	24	2.9	0.549
24.	Customer service	21	2.5	0.021***
	Total	839	100	

Discussion of Results

E-commerce has unarguably made our lives easier. E-commerce as a new way of doing business has significant opportunities. Despite the numerous benefits that e-commerce brings to the nation, individuals and banks, it also

has its challenges. However, e-commerce is fast gathering momentum and becoming a reality in Nigeria as in other parts of the world. To maximise the potential of e-commerce, businesses or e-commerce industries in the country must be aware of the benefits and challenges including success factors of trading electronically. The main findings of the research presented in this study are:

- 1) Above 68% of the respondents are educated and potential users of e-commerce facilities in Nigeria.
- 2) ATM is the dominant payment instrument among respondents.
- 3) The major benefits of e-commerce in Nigeria are increased sales, complete advantage, customer loyalty, increased automation of processes, extended application of new technology, better knowledge management, and enhanced well-being and education of customers.
- 4) The key challenges identified in the adoption of e-commerce in Nigeria are power outages and frequent power interruption, insecurity, technology costs, lack of trust, software capability, and acquisition of IT skilled personnel.
- 5) The major benefits of e-commerce adoption not correctly anticipated are competitive advantage, reduced operation costs, acquisition of a niche market, and reduced inventories.
- 6) Participating respondents correctly estimated the vast majority of challenges of e-commerce that discourage most people from fully adopting and using e-commerce, thereby hindering the development of e-commerce in Nigeria. High rate of poverty, high rate of illiteracy, acquisition of IT skilled personnel, and customer service was, however, four significant challenges that was not correctly anticipated.

Policy Recommendations

- a. Government and private organisations should systematically expand the necessary infrastructure by promoting the development of necessary technologies, expanding high speed information network and recruiting IT skilled personnel as this will promote the growth of e-commerce in the country.
- b. Applicable regulations including those for electronic approval processes, consumer protection, e-commerce legal framework should be stabilised and standardised in order to attract and increase the confidence of e-commerce users.
- c. The government of Nigeria and private organisations should invest in training, adequate publicity and other enlightenment programs that are very vital to attitudinal changes of consumers to e-commerce transaction with emphasis on e-shopping, e-banking and e-business.

- d. E-commerce strategy should be crafted around mobile platforms in order to achieve a good mile- age in the interim and a substantial level of market penetration in Nigeria as this will stimulate interest of business on e-commerce and gives consumers more market power and companies unlimited access to customers across the globe.
- e. The government of Nigeria should provide the much needed leadership, support for e-commerce, and secured the internet from online fraudsters.
- f. In order for e-commerce industries in the country to thrift and raise the country's GDP, there should be steady power supply as this will enhance economic activities in the country.
- g. In order to maximise value from e-commerce in Nigeria, businesses or e-commerce industries should identify and evaluate critical success factors such as secure transaction, top management support, functional and user-friendly web site, partnership with technology providers, regular update of the content of the web site, partnership with service providers, active role of IT department in organisation, online tracking facilities, online personalised recommendations, web site listed on critical search engines, comprehensive e-commerce legislation, appropriate packaging, e-payment system, the use of new technology, integrating web site to all business processes, rapid delivery, adequate resources (finance & people), appropriate organisation structure, more personalised customer service, and responsive and flexible to the market etc.

The authors are of the opinion that if the recommendations are adhered to, e-commerce in Nigeria would continue to improve economic efficiency, competitiveness, and social and economic development.

Conclusion

This study has identified benefits and challenges as they relate to e-commerce in Nigeria. A series of interviews, not discussed in this study, was conducted with online vendors in Nigeria. It was revealed that some customers are concerned about perceived ease of use and insufficient information on the e-commerce site. This is more a perception than a real problem. However, perception motivates people's actions, preventing some from making the leap into cyber shopping. Therefore, adequate information should be made available on the e-commerce web site as this will reduce perceive risk on intentions to use e-commerce. More so, the success of e-commerce largely depends on ease of use, security, consumer preferences, acceptability, industry, agreement, and authorisation.

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EVALUATION OF THE SIGNIFICANCE OF THE RANKINGS OF HIGHER EDUCATION INSTITUTIONS

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Abstract

More and more attention is being paid to university rankings – for student and financing attraction, and for research and graduate employment of the respective university – the reputation of universities is becoming more and more important. However, it is important to underline, that only approximately 1–3% of the world universities (200–500 universities) are represented in the most popular international rankings. Previous studies confirm that most international rankings focus predominantly on indicators related to the research function of universities. Therefore, the purpose of this study is to search for some possible solutions for more effective research work organisation at the universities and correct reflection of achieved results to raise their position in university rankings. The methods used in this study are scientific publication analysis, investigation of university ranking results with special attention to research organisation at the university and expert interviews and expert survey. Main findings: possible solutions for more effective research work organisation at the universities with aim to raise the position in different university ratings, are innovative encouragement and financial support of academic staff for active scientific publication creation, as well as practical and methodological support in the preparing of high level publication for young scientists. Also significant aspect is support of academic staff for international communication and extensive information on research results.

Keywords: Baltic States, university rankings, study and research organisation, higher education quality

Introduction

Demand for information about the *quality* and *efficiency* of higher education institutions grows, when the market of the higher education becomes more open and competitive, when the number of students and state funding to the higher education decreases and the influence of other factors. The role of measuring of the institutional quality of the higher education grows due to the interaction of many factors. An affordable way is the *strengthening of the research aspect of the higher education institutions*: both international and state financed research, and the participation in

the research with local government and industry. Up to now there has not been conducted enough such research. There are many academic investigations with practically available suggestions for the facilitating of research and for the deeper study of this specific aspect. *Formation of the ratings* of higher education institutions is the way how to compare organisations for their parameters of activity. The role of ratings is to offer information about the quality of services in the form of measurable distinctions for the sponsors, clients, and policy makers. Ratings are influential. They foster the flow of doctoral students, elite scientists, and money of sponsors to the top institutions in the ratings. Ratings determine the reputation of the universities. They attract the interest of the society and change the behaviour of the universities and policy makers. The objectives of this study are to promote the place of higher education institutions in the international rankings by a study of higher education institutions, especially, by analysis of research performance indicators. Research methods used in this study includes analysis of scientific publications; comparison of results of leading Baltic universities in different international higher education institution rating systems in 2020, and analysing the role of performance indicators in the formation of rating position:

- 1) QS World University Rankings.
- 2) The Times Higher World University Ranking.
- 3) Academic Ranking of World Universities (ARWU or Shanghai Ranking).

Theoretical findings

Since the emergence of global rankings, universities have been unable to avoid national and international comparisons, and this has caused changes in the way universities function. The existence of rankings encourages universities to improve their performance. The question is, however, which type of actions they lead to. Researchers are investigating different approaches and suggesting active instruments for development of national higher education systems¹. Striving to improve their position in the rankings, universities are strongly tempted to improve performance in those specific areas that are measured by the indicators used to prepare rankings². The rankings are used to manage universities and take decisions

¹ Lim, M.A., Øerberg, J.W. (2017). Active instruments: on the use of university rankings in developing national systems of higher education. *Policy Reviews in Higher Education*, 1(1), 91–108.

² Rauhvargers A. (2011). Global university rankings and their impact. European University Association [on-line data] – [reference 21.09.2018.]. Accessible: www.eua.be.

to make them as competitive as possible³ to prepare scholarly knowledge in the global market area. The rankings are distributed, used, discussed and criticised, but possible students, possible employers and other stakeholders are still using the university rankings⁴ and devoting a lot of attention suggesting to pay attention not only for teaching and research, but also to other aspects including race, gender, and cultural differences.

As it is highlighted in the “IREG Guidelines for Stakeholders of Academic Rankings”⁵, while academic rankings provide information about quality and performance and serve to promote transparency of information about higher education, they do not provide causal analysis of differences in performance among the systems, higher education institutions and their activity. Different rankings have different purposes, target different groups, select different indicators, and use different methodologies.

The methodology of rankings is a relatively new and important field of the study of higher education. Attention must be drawn to the context of the policy of ranking, the character and choice of indicators is very important⁶.

There is very important role for research output in analysing research profiles of higher education institutions – how research production is related to desired outcomes from higher education; is there evidence that research leads to economic gains for states and nations; to what extent is research used by the industry to develop new products and services that can benefit society; and are students better in terms of employment as a result of university research⁷.

Similarly, it is very essential to study the way in which research is organised at university, departmental and team levels⁸ – considering

³ Collyer, F. (2013). The production of scholarly knowledge in the global market arena: University ranking systems, prestige, and power. *Critical Studies in Education*, 54(3), 245–259.

⁴ Estera, A., Shahjahan, R.A. (2018). Globalizing whiteness? Visually re/presenting students in global university rankings websites, *Discourse: Studies in the Cultural Politics of Education*, Published online March 21, 2018, OI: 10.1080/01596306.2018.1453781.

⁵ IREG Observatory on Academic Ranking and Excellence (2018). IREG Guidelines for Stakeholders of Academic Rankings [on-line data] – [reference 12.08.2018.]. Accessible: www.ireg-observatory.org

⁶ Clarke M. (2002). Some Guidelines for Academic Quality Rankings. *Higher Education in Europe*, XXVII (4), 443–459.

⁷ Toutkoushian R. K., Webber K. (2011). Measuring the Research Performance of Postsecondary Institutions, Chapter 7. In: *University Rankings: Theoretical Basis, Methodology, and Impacts on Global Higher Education*. Ed. Shin J. Ch., Toutkoushian R. K., Teichler U. Springer, pp. 123–144.

⁸ Lansley, P. R., Luck, R., Lupton, S. (1995), The organization of construction research in British universities, *Engineering, Construction and Architectural Management*, 2(3), 179–195.

the level of funding, the type of research projects and the resulting outputs, especially, how these benefit the industry.

There are many academic investigations with practically available suggestions for the facilitating of the research⁹. For example, W.Siwinski¹⁰ has emphasised in 2016 that the professional literature on quality in higher education shows that international rankings are doing well only in the area of science.

But there are researchers¹¹ and politicians, as well as university administrators who raise questions on the necessity of university rankings and their applications. Critical views are discussed by researchers on aspects of joint university rankings – does one size fit to all¹². Different aspects of researchers are important to make management decisions on different motivations for academic staff and especially management of the universities and national administrative institutions responsible for higher education development.

Results of Empirical Research

Methodologies of ratings and used indicators of the evaluation of research of universities are compared by use of criteria of indicators in higher education rankings.

Indicators must agree to such criteria:

- connected with aims and tasks of institution.
- direct (promptly describe what is being measured).
- objective (evident clear what is being measured).
- qualitative (as far as possible).
- comparable (results are similarly interpreted, when different study programmes or types of institutions are compared; institutionally, nationally, internationally etc.).
- practical (the count of indicators must be limited; data describing these indicators must be available).

⁹ Padilla-Meléndez, A., Garrido-Moreno, A. (2012), Open innovation in universities. *International Journal of Entrepreneurial Behavior & Research*, 18(4), 417–439.

¹⁰ Siwinski, W. (2016). What direction next for university rankings? 18 November 2016 University World News Global Edition, Issue 437; [on-line data] – [reference 20.09.2018.]. Accessible: <http://www.universityworldnews.com/article.php?story=20161114224439415>.

¹¹ Soo, K. T. (2013). Does anyone use information from university rankings? *Education Economics*, 21(2), 176–190.

¹² Goglio, V. (2016). One size fits all? A different perspective on university rankings, *Journal of Higher Education Policy and Management*, 38(2), 212–226.

QS World University Rankings¹³

Since the QS World University Rankings were first developed in 2004, they have expanded to rank more than 900 universities in 2020, with over 3,800 assessed.

- The top 400 universities are given individual ranking positions, and the rest are ranked in groups – starting from 501–510, up to 801+.
- Based on 6 performance indicators, the ranking assesses university performance across four areas: research, teaching, employability, and internationalisation:
 - academic reputation (40%)
 - employer reputation (10%)
 - student-to-faculty ratio (20%)
 - citations per faculty (20%)
 - international faculty ratio (5%)
 - international student ratio (5%).

Table 1. Performance of Baltic Universities in QS World University Rankings (September 1, 2020)

University	Rank	TOTAL	Academic reputation	Employer reputation	Student-to-faculty ratio	Citations per faculty	International faculty ratio	International student ratio
University of Tartu (EE)	321 (2018)	32.8	20.4	21.6	82.7	18.9	22.4	20
	285 (2020)	35	25.3	15.2	83.4	18.5	29.6	26
Vilnius University (LT)	488 (2018)	24.1	16.9	31.8	60.2	6.1	11.7	6
	423 (2020)	27	19.6	21.6	74.6	5.9	10.9	4.9
Vilnius Gediminas Technical university (LT)	581–590 (2018)	–	–	36	42.4	–	–	29.9
	651–700 (2020)	–	–	19.1	37.8	–	–	18.7
Tallin University of Technology (EE)	601–650 (2018)	–	–	21.3	32.9	–	35	43.4
	651–700 (2020)	–	–	–	27	–	37.3	28
Riga Technical University (LV)	751–800 (2018)	–	–	23.9	26.8	–	15.9	28.7
	701–750 (2020)	–	–	19.8	28.2	–	17	37.5

¹³ (<http://www.topuniversities.com/qs-world-university-rankings>; 02.05.2018).

University	Rank	TOTAL	Academic reputation	Employer reputation	Student-to-faculty ratio	Citations per faculty	International faculty ratio	International student ratio
Kaunas University of Technology (LT)	751–800 (2018)	–	–	21.2	36.7	–	–	–
	801–1000 (2020)	–	–	–	32.2	–	–	–
Riga Stradiņš University (LV)	801–1000 (2020)	–	–	–	–	–	–	78.5
Tallin University (EE)	801–1000 (2020)	–	–	–	–	–	29.2	25.7
University of Latvia (LV)	801–1000 (2018)	–	–	–	26.6	–	–	–
	801–1000 (2020)	–	–	–	18.3	–	–	–
Vytautas Magnus university (LT)	801–1000 (2018)	–	–	–	–	–	28.1	–
	801–1000 (2020)	–	–	–	–	–	27.6	18.7

Source: Author's construction based on QS World University Rankings [reference 01.09.2020] <http://www.topuniversities.com/qs-world-university-rankings>

The Times Higher World University Ranking¹⁴

The Times Higher Education (THES) World University Rankings 2018–2020 list the 1500 top universities in the world, making it the biggest international league table to date.

- It is global university performance table to judge world class universities across all of their core missions – teaching, research, knowledge transfer and international outlook.
- THES ranking uses 13 carefully calibrated performance indicators.
- Ranking, which includes institutions from 79 countries, represents 5 per cent of the world's higher education institutions.

¹⁴ (<https://www.timeshighereducation.com/world-university-rankings>; 01.09.2020).

Table 2. The Times Higher Education World University Ranking (Qualitative indicators/ quantitative indicators 50:50%)

Field	Indicator	Ratio (%)
1. Teaching (the learning environment)		30
	Reputation survey	15
	Staff-to-student ratio	4.5
	Doctorate-to-bachelor's ratio	2.25
	Doctorates-awarded-to-academic-staff ratio	6
	Institutional income	2.25
2. Research (volume, income, and reputation)		30
	Reputation survey	18
	Research income	6
	Research productivity	6
3. Citations (research influence)		30
4. International outlook (staff, students, and research)		7.5
	International-to-domestic-student ratio	2.5
	International-to-domestic-staff ratio	2.5
	International collaboration	2.5
5. Industry income (knowledge transfer)		2.5
	Total	100

Source: The Times Higher Education Ranking [reference 20.09.2018.] <https://www.timeshigher-education.com/world-university-rankings>

Performance of universities of Baltic countries in THE or Times Higher Education World universities rankings are included in table 3.

Table 3. Performance of Baltic universities in the Times Higher Education World University Ranking

World rank 2019	World rank 2020	University	Country
301–350	251–300	University of Tartu	Estonia
801+	601–800	University of Latvia	Latvia
601–800	801–1000	Tallin University of Technology	Estonia
601–800	801–1000	Vilnius University	Lithuania
–	801–1000	Tallin University	Estonia
–	801–1000	Vilnius Gediminas Technical university	Lithuania
801+	1001+	Kaunas University of Technology	Lithuania

World rank 2019	World rank 2020	University	Country
801+	1001+	Riga Technical University	Latvia
–	1001+	Latvia University of Life Sciences and Technologies	Latvia
–	1001+	Vytautas Magnus university	Lithuania

Source: Author's construction based on THES ranking [reference 01.09.2020.] <https://www.timeshighereducation.com/world-university-rankings>

Academic Ranking of World Universities (ARWU or Shanghai Ranking)

The Academic Ranking of World Universities (ARWU) was first published in 2003 by the Center for World-Class Universities of Shanghai Jiao Tong University, China, and updated on an annual basis.

- ARWU uses 6 objective indicators to rank world universities, including the number of alumni and staff winning Nobel Prizes and Fields Medals, number of highly cited researchers selected by Thomson Reuters, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index, and per capita performance of a university.
- More than 1200 universities are actually ranked by ARWU every year and the best 500 are published.

Table 4. Indicators and Weights for ARWU in Academic Ranking of World Universities (ARWU or Shanghai Ranking)

Criteria	Indicator	Code	Weight (%)
Quality of Education	Alumni of an institution winning Nobel Prizes and Fields Medals	Alumni	10
Quality of Faculty	Staff of an institution winning Nobel Prizes and Fields Medals	Award	20
	Highly cited researchers in 21 broad subject categories	HiCi	20
Research Output	Papers published in Nature and Science	N&S	20
	Papers indexed in Science Citation Index-expanded and Social Science Citation Index	SCI	20
Per Capita Performance	Per capita academic performance of an institution	Size	10
Total			100

Source: Author's construction based on Academic Rankings of World Universities (ARWU) [reference 01.09.2020.] <http://www.shanghairanking.com>

From universities in Baltic countries there is represented only University of Tartu having good results in international university rankings.

Table 5. Performance of Baltic Universities in Academic Ranking of World Universities (ARWU ranking or Shanghai Ranking 2016–2020)

World rank	University	National rank	Total score	Score of alumni
401–500 (2020) 301–400 (2019) 301–400 (2018) 301–400 (2017) 401–500 (2016)	University of Tartu (Estonia)	1	–	0.0

Source: Author's construction based on ARWU [reference 01.09.2020.] <http://www.shanghairanking.com>

Rankings of higher education institutions indicate that the universities from Baltic countries have reached good results, but still a lot has to be done and universities from Latvia and Lithuania can learn from the experience from University of Tartu on considering management decisions for better performance in international university rankings.

Conclusions and proposals

- None of world popular approaches and methodologies of the evaluation and comparing of higher education institutions are absolutely objective.
- Different methodologies are used in the international rankings; however the *evaluation of the research activity* has significant proportion in all of them.
- Different *indicators of research activity* are used, but more significant are:
 - number of publications in respectable journals / per academic staff / in citation data bases.
 - index of citation.
 - number of highly cited researchers.
 - international research awards.
 - number of doctoral degrees conferred.
 - income from research.
 - productivity of research.
 - income from industry (transfer of knowledge and technology) etc.

Acquired findings indicate, that the results of research activity of universities have important role in the international ratings of higher education institutions and the improvement of these results facilitates the place of higher education institution in the ratings, thus fortifying,

to which aspects of the strengthening of research activity must be drawn special role and attention in the missions and strategies of higher education institutions.

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INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) UTILIZATION: A VERITABLE TOOL FOR ACADEMIC STAFF EFFECTIVENESS IN NIGERIAN POLYTECHNICS

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Abstract

There is no doubt about the fact that information and communication technology utilisation (ICT) is a life wire of any school organisation. However, planners and administrators are aware of the contributions that ICT utilisation could make to the enhancement of academic activities of the institutions. The attainment of the goals and objectives of higher institutions of learning required the availability and optimal utilisation of ICT. Based on the foregoing premise, this study examined ICT utilisation as a veritable tool for academic staff effectiveness in Nigerian Polytechnics. The concept and importance of ICT utilisation were critically examined. Challenges associated with ICT utilisation were highlighted, which include unsteady power supply, inadequate funding, poor quality of telecommunication connections, and lack of qualified ICT operators. The study concluded that the contribution of ICT utilisation to the development of entire level of education today make it necessary for the adoption of ICT utilisation by the school authorities, administrators as well as the lecturers in such a way that it easier for the utilisation of application packages (like power point presentation, Microsoft word process, spread sheet and so on), internet application (video conferencing, e-mail, data base, e-learning) and computer hardware facilities (photo copier machine, printing machine, scanners, laptops to mention but a few). This helps to improve the quality of teaching-learning process, academic and administrative effectiveness in institutions. Also, the technological devices of an institution are a major determinant factor in the actualisation of its objectives. The study recommends that proper funding should be provided for the procurement of ICT devices and equipment which are capital intensive.

Keywords: Nigeria, ICT, Utilization, Effectiveness, Polytechnics

Introduction

The emergence of information and communication technology (ICT) has brought a pertinent turnaround to educational development worldwide particularly in Nigerian Polytechnics. In terms of making lecturers more relevant in the world of work and also facilitates teaching-learning processes. In higher institutions of learning, especially Nigerian Polytechnics, academic staff play a significant roles in the achievement of polytechnic's goals as stated in National policy on Education (2014) which include teaching, research, dissemination of existing and new information, pursuit of services to the community and being a store house of knowledge. For the attainment of these responsibilities effectively necessitate the use of ICT (National Policy on Education, 2014). For this reason, there is need for ICT utilisation in terms of power point presentation, e-learning and laptop/computer and so on, which are useful to the effectiveness of academic staff of Polytechnics. The truth remains that, ICT utilisation holds the promise of improved effectiveness (Akuegwu, Ntukidem & Jega, 2011; Mitomo, 2020; Victor & Faga, 2015).

Despite the importance of ICT utilisation in ensuring academic staff effectiveness in the global world it appears that some lecturers in African higher institutions particularly Nigerian Polytechnics are not effective as expected due to inability to adopt ICT utilisation to their daily responsibilities in terms of teaching, research and publications, as well as community services in their various institutions (Dalhatu, Mamman & Abdullah, 2020). To justify this fact, Victor and Faga (2015) asserted that the promise that ICT utilisation holds is not actualised due to the limitless abilities of lecturers to make use of it. Guardian (2007) corroborated that the application of ICT to teaching- learning and research publications in Nigerian tertiary institutions is less than five percent. Also, some lecturers are not effective because of limitless ability to make use of ICT. Some lecturers in higher institutions are yet to acquire the requisite ICT skills, even when opportunities exist.

The reform process involved an effective integration of ICT into various curricula with the intention of providing learners with knowledge of basic and applied an aspect of ICT that can make learning appreciable and accessible while at the same time enhancing professional productivity (Gyaase, Gyamfi, Kuranchie & Koomson, 2020; Tomei, 2005). Oniye, Yahaya and Alawaye (2011) opined that the integration of information and communication technology into teaching-learning process in higher institutions of learning would make learning more efficient and productive thereby engendering a variety of tools to enhance and facilitate lecturers' pedagogical activities and students 'academic performance. Nwankwo (2014) pointed out that no matter how good the curricula content is if

the methods and conditions for classroom instruction are insufficient, the teaching–learning process will fail. Furthermore, the modern information explosion and the impact of access and popularisation of ICT among the youth, make it important for today’s teachers to be encouraged to concentrate more on teaching students how to learn than what to learn. However, the lecturer’s role in the school no doubt contributes in determining the success of any educational system.

It is, therefore, imperative to ascertain how lecturers can also benefit from the use of information and communication technology (ICT) in carrying out their daily activities. Hence, information and communication technology has impacted on the quality and quantity of teaching, learning and research in traditional and distance institutions. ICT also enhances through teaching and learning through its dynamic alternative and engaging content, it strengthens teaching and provides opportunities for connections between the schools and the world and it makes the school more efficient and productive, thereby engendering a variety of tools to enhance and facilitate teacher’s professional activities. Hence, the institution’s top managers, that is, the reactors must be interested in the adoption of information and communication technology utilisation since they play key roles in its implementation. The school managers ensure a match between information and communication technology utilisation and academic staff effectiveness within the institutions in terms of students’ learning outcome.

Academic staff effectiveness is very crucial to any organisation because it may be one of strongest pillar of a higher institution of learning. Where positive results (quality output) expected from lecturers of polytechnics through teaching-learning, staff research performance, community services as well as students’ academic performance so as to achieve the stated goals and objectives of polytechnic education (Adediwura & Tayo, 2007, Adu & Olatundu, 2007; Babatunde and Victor, 2014). In a similar view, Adeyemi and Uko-Aviomah (2003) articulated that teaching staff is the mainstay of any institution and their number and quality affect the teaching-learning process. Lecturers are however the significant input in the transformation of students into graduates and providers of the knowledge and solutions to the societal problems. Ali (2006) postulated that academic staff is experienced and frontline scholars in their diverse disciplines and those who may utilise the required vital teaching and learning facilities as well as opportunities for professional and career growth in such system. Academic effectiveness is the result of education, the extent to which a student and lecturer or institution have achieved their educational goals. The effect of lecturers or teachers’ teaching effectiveness on the learning outcome of students as judged by students’ academic performance has been the subject of several studies

Concept of information and communication technology

ICT is an extensional term for information technology (IT) that emphasises the unique role of unified communications in the integration of telecommunications (wireless signals and telephone lines) and supercomputers, as well as necessary software, middleware, storage and audio-visual systems, which enable users to have access, store, transmit, and operate information. ICT can also be described as the convergence of telephone and audio-visual networks with computer networks via a single link system or single cabling (Goh & Sigala, 2020; Habibi, Yusop & Razak, 2020). Though, there are great economic incentives to combine the telephone network with the laptop network system using a single united system of signal distribution, cabling and management. Thus, ICT is a canopy term that includes any communication device, television, encompassing radio, cell phones, network hardware and computer, satellite systems and so on, as well as the numerous services and applications with them such as distance learning and video conferencing. More so, ICT is seen as a broad subject and the thoughts are evolving. ICT covers any product that will retrieve, manipulate, transmit, or receive information electronically via digital form, (e.g., digital television, email, robots, personal computer, personal computers). The theoretical differences between interpersonal-communication technologies and communication technologies have been identified by the Piyush Mathur. Skills Framework for the Information Age is one of many replicas for managing and describing competencies for ICT teachers for the 21st century (Ifinedo, Rikala & Hämäläinen, 2020; Suárez-Rodríguez, Almerich, Orellana & Díaz-García, 2018).

The origin of information and communication technology (ICT) as a tool for work efficiency can be linked with the innovation of the abacus which is a counting device about 3000 B.C. The development of the abacus meant specifically for carrying out minimal calculation both in business and non-business ventures. The development of information and communication technology (ICT) in its modern form can, therefore, be traced back to the 16th century (Greene, 2013). Mohammed and Yarinchi (2013) postulated that the inception, growth and impact of information technology can be traced to the origin and impact of industrial revolution. It was during the era of industrial turnaround that effort was made to inculcate the use of technology in the production process. This achievement was gradually transferred to other countries around the world including Nigeria. Also, the development of information and communication technology (ICT) and its application to education and training has increasingly permitted institutions to utilise and deliver learning in various ways.

Presently, the choice of venue is driven by among other things' the ability to access the learning materials using ICT. These technologies

have made walls of the learning space transparent”, providing a freedom for the learners to explore sources of information within and outside their institutions, even outside their country (Abdulhamid, Ahmed & Babawuro, 2007; Adewoyin & Fawole, 2008). Aliogo (2005) perceived that people are in a revolutionary global knowledge; however, people need to be conscious of what they claim to know today, which may become obsolete tomorrow. Education is what people know today, however, people need to be conscious of time and dynamics within the time frame.

Information according to Iheanacho (2004), it can be described as the basic driving force behind any useful assistance a counsellor, manager or a psychologist offers to his client. Information technology is also the study or use of electronic equipment particularly, computer for storing, analysing and sending out information. It is also referred to the processing of collating, storing and sending out useful information. Oniye, Yahaya and Alawaye (2011) opined that information and communication technology as the method and technical means of capturing, storing, processing, retrieving and transmitting data (and knowledge) through multimedia electronic-based approach. Onwumere (2008) perceived information and communication technology as a collective term used to indicate the collection of electronic machines(both hardware and software) that make them work in the collection, storage, processing and transmission, retrieval, presentation and communication of information particularly students in institutions of higher learning. These technologies comprised computers, the internet, broadcasting technologies (radio and television) among others. It provides immediate feedback to students to enable them to monitor their progress. Information and communication technology are as pertinent as the air people breathe. Indeed, it is the major evolution of the time.

As it is observed, the bedrock of any information communication technology is the computer, thus without the knowledge of computer, one is but a living dead. Freeman and Hasnaoui (2010) suggested that information and communication technology is used to refer to an electronic-based system of information transmission, reception, processing and retrieval, which has drastically changed the way people think, the way people live and the environment in which people live. This indicates the fact that ICT facilities and equipment are devices which make the accumulation and dissemination of information easier and faster across borders. Information and communication technology (ICT) are a combination of technological devices that are developed for the purpose of sharing information and communication. Ogunlade (2008) opined that ICT could be regarded as a tool for teachers but not to be substituted for the teachers. In a related development, ICT has the potential of being

used to meet the learning needs of an individual student, promote equal educational opportunities, offer high-quality learning materials, increase self-efficiency and independence of learning among students and improve students' development.

ICT utilisation in Nigerian polytechnics

Yusuf (2005) defined ICT utilisation as the presentation and distribution of instructional content through web environment (e-learning) to support learning and communication. Ntui and Inyang (2015) expressed that ICT utilisation to large extent determine academic staff effectiveness if it properly implemented. Aduwa-Ogiegbaen and Iyamu (2005) accepted that, proper ICT utilisation holds enormous promise to improve teaching and learning in addition determining workforce opportunities. The use of ICT in teacher professional development entails two sets of activities or roles: The first one is training teachers to learn about ICT and its use in teaching as computers introduced to schools, the second role is to provide for teacher education, whether as a core or principal component of a programme or enabling role within it.

ICT utilisation as regards the learning process can be subdivided into three various parts: as an object, aspect, or medium. As an object, it relates to learning about ICTs as specific courses such as computer education. Learners acquainted themselves with hardware and software, including packages such as Microsoft Word, Microsoft Excel, and others. The main purpose is computer literacy. As an aspect, it refers to application of ICTs in education related to what obtains in industry. ICT in education, such as computer-aided design and computer-aided instruction, are examples used to support teaching and learning. Thus, ICT utilisation enables lecturers to work together and communicate with other lecturers all over the world and this enhances their work performance (Akpan, 2014; Oluwafemi, 2011).

Importance of ICT in Nigerian polytechnics

According to United Nations Educational, Scientific and Cultural Organisation (UNESCO), which is an organ of the United Nations (UN), has ensured the integration of ICT into education sector as part of its determinations to ensure access and equity to education system across the globe. Deducing from the UNESCO's book on educational ICT, which explains the establishment's position on the initiative, it explains that ICT has the capacity that can be used to contribute to universal access to education, delivery of quality teaching and learning, equity in education, development of teachers' professionalism and more efficient management

of education, administration, and governance. The UNESCO takes a comprehensive and holistic approach to promote Information and Communication Technology in all facets of education. Also, access, inclusion as well as quality are the prominent main challenges they can address. In the same vein, the organization's intersectoral podium for ICT in education centres on these matters through the joint work of three of its sectors: Communication & Information, Science and Education (Rana, Greenwood & Fox-Turnbull, 2020).

The fast expansion in ICT has brought outstanding transformations in the 21st century and positively influenced the demands of modern world (Bandeke, 2008). According to Ifinedo (2006), tertiary institutions all over the world have been integrating information and communication technology for teaching and learning technologies in an attempt to create an enable environment for both teachers and students of engaging in combined learning and gain access to information. Givang (2009) suggested five components of ICT tools for innovation in school. It is viewed as subject (i.e. computer studies), a tool of innovation in teaching and learning process (i.e. digital content, multimedia, teaching-learning methods, learning context), ICT as an administrative management tool (i.e. Educational Management Information System – EMIS), expansion of learning opportunity (i.e. distance learning and e-learning) and ICT as a facilitation of higher-order thinking skills (i.e. learner-centred self-directed learning, tailored learning).

Nwaoka and Okoli (2012) suggested that any resource personal that is lacking in ICT would be boring repetitive and would produce very little. However, Egbebi (2014) articulated the following relevance of ICT: Use of electronics computer software to convert, store, protect, process, transmit and retrieval information, message transmission is no longer a tedious process, but it speed up consideration for the exigencies of time and space, utilising computerised system to carry out many activities and also to achieve their institutional goals, some of the activities and entail, conducting research, conducting examination for students (e-exam) course registration, online-application for prospective student, student hall allocation, school fee payments, typing of question papers, keeping of student records, keeping of staff records, results typing and processing, sending and retrieving information to other institution to mentioned but few.

Concept of academic staff effectiveness

Academic departments are the core of the tertiary educational institutions. It is at these units that business of educating students and research aimed at moving the society forward gets conducted. If

the academic department is that essential in attaining higher educational objectives, the departmental development must be a product of strategic planning. However, given the important role of the Head of Department, one would expect that their performance will be periodically evaluated to ensure effectiveness in the management of the academic department (Archibong, 2006). Higher educational institutions are expected to pursue their goals through teaching, research, dissemination of existing and new information, and pursuit of service to the community and should be a storehouse of knowledge (National Policy on Education, 2014). Popoola (2008) regarded academic staff as lecturers in the academic organisations whose responsibilities concern to teaching, learning, research and community services. This means that lecturers of Nigerian Polytechnics are expected to carry out their day to day activities diligently in terms of facilitating teaching and learning, publishing journals and offering public lectures for community services in order to ensure their effectiveness.

Teaching is a process of grooming an individual to become successful in life. It is also can be regarded as way of imparting knowledge to learners. According to Acharu (2015), teaching is dynamic process in which lecturer shares information with learners in order to provide them with the information needed for behaviour changes. According to Ogunsaju (2004), effectiveness involves the interdependent relationships among purpose, effort and accomplishment. It is the desire of every teacher to be effective. Effective teaching is the process of identifying what actually works as indicated by outcomes. Basically, it is whatever a teacher does to keep his students on task. Sawhney and Kaur (2011) described teaching effectiveness as excellence or the most favourable level of efficiency and productivity on the part of the lecturers. Effective teacher is seemed to be effective with students of all academic levels of diversity in their classroom. Effectiveness in school management is justified by how well objectives of education are realised and not by some real or imagined standards for the proper management of schools. As goals change or new innovation emerges, it becomes imperative to re-examine the existing system of management.

Akuegbu, Ntukiden, Ntulgiden and Jaga (2011) described effective school as one which strives towards attaining quality learning. Research is one of the crucial points in which higher institutions of learning rests. Others include teaching and community service. Research entails of issue. It consists a key criteria for the promotion of academic staff and, as such it highly regarded, sought after acquires high level participation and quality work. The area of specialisation of academic staff determines their research productivity. Publication means the quality and quantity of research produced by academic staff. This is the justification in the number

of published researches in local and international journals, awards obtained by staff among others. Lecturers at the same time pursuit service to the community in terms of delivery of public lectures, involvement in monitory and marking of WAEC and NECO exams, participation in training, enlightenment/re-orientation programs and so on.

ICT utilisation and academic staff effectiveness in Nigerian polytechnics

ICT utilisation is seen as veritable tools for achieving academic staff effectiveness in higher institutions all over the world particularly in Nigerian Polytechnics. The tools for the achievement of academic staff effectiveness is the utilisation of application packages (like use of power point presentation, Microsoft word process, spread sheet and so on), internet application (video conferencing, e-mail, data base, e-learning) and computer hard ware infrastructures (photo copier machine, printing machine, scanners, laptops and so on). Atsumbe, Raymond and Enoch (2012) corroborated that ICT has turned out to be veritable tools in educational methodology and curriculum delivery globally. This is in recognition of the fact that Akuegwu, Ntukidem and Jaga (2011) said that ICT utilisation refers to the utilisation of computer, lap tops, video machines, multimedia projectors or power points, digital cameras, internet facilities, computer network, telephone Global System Mobile (G.S.M) and land phones, E-library, television programmes, data base among others in the educational setting.

ICT utilisation enables lecturers to work together and communicate with other lecturers all over the world and this enhances their work performance (Akpan, 2014). The ICTs have the potentials of not only ensuring effectiveness and efficiency in the teaching and research but also have potentials of ensuring the administrative duties (Onasanya, Shehu, Oduwaye & Shehu, 2010). Aduwa-Ogiegbaen and Iyamu (2005) accepted that, proper ICT utilisation holds enormous promise to improve teaching and learning in addition determining workforce opportunities. Abdulhamid, Deba & Babawura (2007) viewed that acquiring technologies are the apparatus for effective, high performance workers in the 21st century. ICTs have potential to enhance the publication of educational journals in the institutions (Abdulkarin & Ebiferi, 2007).

Larsen and Lancrin (2005) revealed that ICT is indispensable of improving the quality of tertiary education and effectiveness of teaching and learning. Ntui and Inyang (2015) expressed that ICT utilisation to large extent determine academic staff effectiveness if it properly implemented. Kumar and Kaur (2005) opined that the extensive use of internet network

permits lecturers and researchers to successfully carry out their academic and social services. The enhancement of academic activities in Nigerian higher institutions can be assured through the use of internet and web technology that serves as a driven force for ICT utilisation. Internet surfaced as educational tool for a good source of getting the right information and solution to problems in an academic setting

Internet utilisation enables lecturers to work together and communicate with other lecturers all over the world and this enhances their work performance. Internet allows lecturers to publish educational journals in the institutions (Abdulkarin & Ebiferi, 2007; Fasaie & Aladeniyi, 2010; Joseph, Fasa, Samuel & Samuel, 2014). Kumar and Kaur (2005) viewed that the advent of internet has increased the following phenomena in higher educational systems: Learner is not dependent on teacher for interaction; Teachers can give lectures virtually to unknown learners and the effect of his work has no bound. Academic staff faculties use the internet in different ways for educational purposes, such as web-based education, smart classroom application and opportunity to participate academically in cooperative learning, which actually is the major focus of internet facility that is currently in vogue. Individual learner can learn at the same pace globally. They noted that lecturers, research scholars use the internet for the purpose of teaching activities, research and study. Similarly, a study conducted by Ogunrewo and Odusina (2010) revealed that ease of downloading of related information/materials for teaching and research was given the highest priority as the reason for surfing the internet with an index of 3.88% by the academic staff members.

Igbineweka and Mani (2013) opined that based on the figures provided by National Science Foundation Network (NSFnet) as at January 2010, the internet linked more than 4.85 million computers with over 36 million users in 85 countries including Nigeria. Since then, especially in the recent past, new users have been hooking up at every 1.6 seconds (Andreas, 2012). In the emerging global world therefore, connecting the school to the internet has a number of benefits for education provision and delivery. For example, internet availability has helped many teachers to interact with their peers in other parts of the emerging global village. With this, teachers have been able to ask for help and share personal classroom experiences, a situation that has positively impacted on the teaching–learning process. According to Hepp, Hinostroza, Laval and Rehbein (2011), the importance of making the internet available to facilitate teaching and research activities in school cannot be over-emphasised. E-mail permits learners to log onto internet network at their convenience to access lectures, read assignments, and deliver completed homework or to interact with lecturers and fellow students.

Adeyemi and Marry (2013) opined that power point presentation is being utilised by lecturers to prepare and reproduce hand-outs or make presentation of learning materials as slides in lecture rooms. The use of power point and overhead projectors for teaching and learning has significant relationship with academic staff effectiveness (Abdulhamid et al., 2007; Safahie & Asemi, 2008; Ntui et al., 2015; Victor et al., 2015). Umoren (2006) found out that use of power point, instructional delivery is impactful to slow and fast learners. This means that power point presentation utilisation improves academic staff effectiveness. PowerPoint slide presentations used in lectures can provide a structure for the students to follow and in that sense assist with cognition. Lecturers can print out hand-outs pages and write notes next each slide as the lecture progresses. PowerPoint slide also stimulate interest and deepen understanding of a concept of students. Centre for Teaching and Learning (2014) opined that appropriate use of PowerPoint can enhance the teaching and learning experience for both staff and students. It enumerated seven benefits of using power point allows students more control of their own learning, allows lecturers to guide more, teach less, allows student to build up knowledge, and become part of the teaching process, can provide some really engaging learning experiences, teachers can provide “scaffolding” and safety nets, at risk” students can be identified more quickly.

Challenges of ICT utilization

In spite of the power of computers to reform and enhance teaching and learning processes, the improper implementation of the policy is a widespread issue which is beyond the reach of increased technological advances and funding with little proof that educators and tutors are appropriately integrating ICT into everyday learning. However, intrinsic barriers such as a belief in more traditional teaching practices and individual attitudes towards computers in education, as well as the educators’ own comfort with the use of computers and their ability to use them all as result in varying effectiveness in the integration of ICT in the classroom. Also, there is some empirical evidence that, for one to be effective in education, ICT must be fully channelled into the school pedagogy. Precisely, when teaching literacy and math, using ICT in combination with writing to learn, it produces better results than traditional methods alone or ICT alone (Goh & Sigala, 2020; Rana, Greenwood & Fox-Turnbull, 2020).

It is a basic fact that, ICT has the ability to ameliorate the educational organisation to a great extent; some countries are far from reaping these benefits because of certain impediment. An impediment is something that slows or blocks progress (Vocabulary.Com Dictionary, 2016). It may be described as difficulties of frustration experienced in the application of ICT in Nigerian Polytechnics. These impediments among others contain:

Antiquated and poorly managed transmitting facilities

The problem of poor and out-dated transmitting facilities is one of the problems of higher learning in Nigeria. It was obvious that most of the transmitting facilities in Nigeria are too out-dated and do not reflect the state of the art in transmitting. The equipment is, consequently, old and cannot support efficient educational broadcasting. This situation is worsened by ill-maintenance due to lack of space parts. There is, hence, poor signal reception and breakdown in communication from the station (Onwumere, 2008).

Unsteady power supply

The current status of the Power Holding Company of Nigeria Plc (PHCN) is nothing to write home about. Most of the tools for ICT, because of their encoding property need electricity as the source of power. Granting that there has been some improvement in power supply by the PHCN, the road to regular power supply is still a long one. Failure when a whole class is being instructed through ICT or Computer Based Test (CBT) or while any instructional mode is going on could be very disorganising. The irony of it all is that when PHCN strikes, it might take them more than thirty minutes or an hour to restore power.

Utilisation attitude

Most applications of the ICT tools in some Nigerian higher institutions of learning where applicable are more or less sporadic. This does not give room for real educational development. Again, the posture of various managements in and outside the institutions towards the introduction of ICT related facilities such as the internet and procurement of computer is rather poor and there may not be aided or supported by government at all (Suleman, 2008). Over utilisation of ICT means the excessive use of available electronic device in the schools. Yusuf (2005) observed ICT utilisation as the presentation and distribution of instructional content through web environment (e-learning) to support learning and communication. Akuegwu, Ntukidem and Jaga (2011) as cited in Egomo Enyi Tah. Computer lap tops, video machines, multimedia projectors or power points, digital cameras, internet facilities, computer network, telephone (G.S.M) and land phones, E-library, television programmes, data base among others.

Lack of qualified ICT operators

Findings have indicated that some lecturers are computer semi-illiterate if not outright illiterate just as some of the students. Higher institutions lack computer/ICT specialist that would support and manage the internet connection and/or application of computer on the teaching/learning process.

Inadequate funding

This is the bane of any educational development. Without adequate funding, curriculum innovation will prove abortive or remain a mere mirage (Okojie, 2007).

Poor quality of telecommunication connections

Another problem militating against the integrating of ICT into institutions of higher learning is the issue of poor quality of telecommunication. Nigeria is one of the countries of the world that is yet to develop its telecommunication facilities to a standard that is judged excellent and this has not enabled lecturers and students that have the motivation to utilise this facility, to derive maximum satisfaction from its usage. Therefore, in few centres where good facilities are available, the service would definitely be effective. Invariably, these challenges hamper the adequate utilization of the gadgets.

Conclusion

Although the primary purpose of ICT utilisation is the improvement and sustenance of a good educational programme, the stock of ICT facilities in the polytechnic education in Nigeria and in the South-west Nigerian Polytechnics, in particular, is enormous even at the current state of their insufficiency and gross inadequacy. They represent substantial financial outlay to the providers. Whereas ICT utilisation gives meaning to the teaching-learning process, their provision and utilisation have not been adequately accorded the attention it deserved especially in South-West Nigerian Polytechnics. There is no doubt about the fact that ICT utilisation in no small measure has contributed immensely to the improvement and effective teaching and learning in the present era of globalisation. Hence, ICT utilisation in the institutions vehemently enhances the acquisition of knowledge and offers lecturers unprecedented opportunities to optimise their academic pursuit and effectiveness in more ways than one.

Both school administrators, lecturers and students have a lot of areas demanding improvement, however, there is the need for effective ICT utilisation in order to ensure academic staff effectiveness. The achievement of the goals and objectives of polytechnics required the optimal utilisation of ICT. Perhaps, if ICT is properly utilised in the institutions in terms of application packages (like power point presentation, Microsoft word process, spread sheet and so on), internet application (video conferencing, e-mail, data base, e-learning) and computer hard ware facilities (photo copier machine, printing machine, scanners, laptops to mention but few). This will make both the school managers and lecturers to be more proactive

in their day-to-day activities. Thereby, there is tendency of attainment of academic staff effectiveness which at the same time will bring about the students' academic performance in South West Nigerian Polytechnics.

Recommendations

Based on the foregoing discussions, the following suggestions were made:

1. The government should ensure adequate provision of funding for the provision of ICT facilities and equipment for lecturers in the institutions which is usually capital intensive and requires adequate budgetary allocation.
2. Concerted efforts should be made by the government to ensure that every lecturer has access to ICT facilities for utilisation purposes.
3. Prospective lecturers should be trained in the art of management to equip them with the prerequisite knowledge of ICT utilisation strategies that would be useful when appointed as rectors or similar positions.
4. School management should organise seminars and workshops on ICT utilisation strategies so that school managers could gain in-depth knowledge and understanding in this important area of ICT utilisation.
5. Philanthropist, alumni association and well-meaning individuals in the different communities in South-West Nigerian polytechnics should assist in the provision and management of essential ICT facilities.
6. The government should ensure that contractors handling the provision of school ICT facilities that are of good and top quality. This is the first step towards any maintenance effort that will promote academic staff effectiveness in the institution.

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Humanities and Social Sciences: Latvia
Volume 28, Issue 2 (Autumn-Winter 2020)

University of Latvia Press