Chapter 3

The role of HRM practices in firm innovation and product competitiveness: Implications for intra-regional trade

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Evidence from firms in Kenya, Uganda, and Tanzania

Abstract

With increasing exposure to product market competition both in export markets and at the domestic level, in part due to deeper trade reforms pursued by East African countries as part of their integration agenda, the firm survival may hinge on innovative products and processes. Motivated by the theoretical and empirical findings that product competitiveness is positively correlated with product and process innovation and the potential facilitative role of human resource management (HRM) practices on innovative behaviour, this chapter provides insights on the link between HRM and firm innovation as a strategic response to foster product competitiveness for three East African countries, Kenya, Uganda and Tanzania. The chapter utilises a detailed firm survey dataset conducted by the World Bank through their enterprise surveys programme during 2013-2014 in the mentioned three East African countries. The preliminary findings from the chapter highlight the facilitative role of HRM practices on firm innovation in products and processes, the role of training in research and development (R&D) and the important role of innovation as a strategic counter to competitive pressure. Finally, enhanced product competitiveness attributed to the firm innovative activities fosters increased intra-regional trade. The facilitative role of HRM reinforces the relative importance of skill development policies that support firms in their innovation path.

1 Introduction

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In an ever-increasing competitive business world driven by globalisation, dynamics of user needs and changing technologies, innovation capability appears to be a rational strategy to foster the survival and sustainability of firm products in the marketplace.[1] Many studies have delved into the link between human resource management (HRM) practices and firm innovation performance[2] in which it is argued that the HRM practices foster innovative activity in an organisation. HRM practices that involve rewards, training and career development facilitate and enhance the innovative drive of employees.[3] Rewards coupled with delegation may allow the discovery and utilisation of local knowledge to support discovery and new ideas.[4] In addition, team-driven engagements foster better use of local knowledge that could improve processes and products in an organisation.[5]

There is, however, variability in the expected links between HRM practices and different types of innovation activity. For instance, Shipton and others[6] find a strong link between HRM practices and product innovation but not higher levels of process innovation. Influenced by the

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1 R Aryanto, A Fontana & AZ Afiff 'Strategic human resource management, innovation capability and performance: An empirical study in Indonesia software industry' (2015) 211 *Procedia-Social and Behavioural Sciences* 874-879.

2 S Arvanitis, 'Modes of labour flexibility at firm level: Are there any implications for performance and innovation? Evidence for the Swiss economy' (2005) 14 *Industrial and Corporate Cha*nge 993-1016; J Jiménez & R Sanz-Valle, 'Innovation and human resource management fit: An empirical study' (2005) 26 *International Journal of Manpower* 364-381; K Laursen & NJ Foss, 'New human resource management practices, complementarities and the impact on innovation performance' (2003) 27 *Cambridge Journal of Economics* 243-263; K Laursen & NJ Foss 'Human resource management practices and innovation' in M Dodgson, DM Gann & N Phillips (eds) *The Oxford Handbook of Innovation Management* (2014); J Michie & M Sheehan 'HRM practices, R&D expenditure and innovative investment: Evidence from the UK's 1990 Workplace Industrial Relations Survey' (1999) 8 *Industrial and Corporate Change* 211-234.

3 S Beugelsdijk 'Strategic human resource practices and product innovation' (2008) 29 *Organisation Studies* 821-847; Schmelter, R., Mauer, R., Börsch, C., & Brettel, M. (2010). Boosting corporate entrepreneurship through HRM practices: Evidence from German SMEs. *Human Resource Management*, *49*(4), 715-741.; K Jiang and others 'How does human resource management influence organisational outcomes? A meta-analytic investigation of mediating mechanisms' (2012) 55 *Academy of Management Journal*; Z Zhang, D Wan, D & M Jia 'Do high-performance human resource practices help corporate entrepreneurship? The mediating role of organisational citizenship behaviour' (2008) 19 *Journal of High Technology Management Research* 128-138.

4 I Bohnet & F Oberholzer-Gee '*Pay for performance: Motivation and selection effects*' (2001); FA Hayek 'The use of knowledge in society' (1945) 35 *American Economic Review*, 519-530; MC Jensen, & WH Meckling 'Specific and general knowledge and organisational structure' in L Werin & H Wijkander (eds) *Contract economics* (1992) 251-274; Laursen & Foss ('Human Resource Management Practices) (n 2).

5 E Ennen & A Richter 'The whole is more than the sum of its parts: Or is it? A review of the empirical literature on complementarities in organisation' (2010) 36 *Journal of Management* 207-233; JA Schumpeter *The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle* trans R Opie (1912/1934); Laursen & Foss (2003) (n 2); J Love & S Roper 'Organising innovation: Complementarities between cross-functional teams' (2009) 29 *Technovation* 192-203.

6 H Shipton and others 'Managing people to promote innovation' (2005) 14 *Creativity and Innovative Management* 118-128.

availability of predominantly cross-sectional data for analysis, most of the studies suffer from sample attrition since a number of firms disappear over time.[7] Findings from studies that incorporate longitudinal data in the analysis, however, are consistent with the cross-sectional data studies,[8] reinforcing the perceived positive link between HRM and innovation activity.

The literature on the correlation between firm size and innovation abounds[9] in the sense that larger firms are more likely to find a larger output to apply the results of the innovation relative to smaller firms. However, recent findings[10] appear to indicate a high incidence of innovating firms among small firms.

It is evident in the empirical literature that not all firms succeed in triggering innovation in practice for a variety of reasons. One source of innovation failure is associated with HR competencies.[11] Incidentally, the proportion of firms exhibiting innovation failure is relatively higher in Africa than in the rest of the world. It is, however, observed that few African entrepreneurs are innovative. Competitive pressure appears to boost productivity, given fragmented markets and weak institutions to compel innovation in firms.[12]

Insights from the work of Özbag and others[13] and the reports by the African Development Bank (AfDB), the Organisation for Economic Cooperation and Development (OECD) and the United Nations Development Programme (UNDP)[14] raise important empirical questions. Is there any evidence link between HRM practices and firm innovative activity among African firms? Does size matter? This chapter leverages the availability of micro firm-level data from the World Bank Enterprise surveys and the observed deeper integration of the East African Community (EAC) that provides the requisite product market competitive pressure to drive innovative activity among firms to provide insights into these questions. Since 2000, the EAC has recorded several milestones, including the creation of a customs union and a common market. The common market

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7 Laursen & Foss (2014) (n 2).

8 H Zhou, R Dekker & A Kleinknecht 'Flexible labour and innovation performance: Evidence from longitudinal firm-level data' (2011) 20 *Industrial and Corporate Change* 941-968; C Zoghi, R Mohr & P Meyer 'Workplace organisation and innovation' (2010) 43 *Canadian Journal of Economics-Revue Canadienne De Economique* 622-639.

9 WM Cohen & S Klepper 'Firm size and the nature of innovation within industries: The case of process and product R&D', (1996) 78 *Review of Economics and Statistics* 232-243.

10 I Booyens 'Are small, medium and micro-sized enterprises engines of innovation? The reality in South Africa' (2011) 38 *Science and Public Policy* 67-78.

11 GK Özbağ, M Esen & D Esen 'The impact of HRM capabilities on innovation mediated by knowledge management capability' (2013) 99 *Procedia-Social and Behavioural Sciences* 784-793.

12 AfDB/OECD/UNDP (2017) *African Economic Outlook 2017: Entrepreneurship and Industrialisation*, OECD Publishing, Paris, https://doi.org/10.1787/aeo-2017-en. accessed 24 July 2023

13 Özbağ and others n 11) 784-793.

14 AfDB/OECD/UNDP (n 12).

came into force in 2010 with the signing of the East African Common Market Protocol, in which the partner states agreed to maintain a liberal position on the free movement of factors of production, goods and services. The scope of this chapter is limited to Kenya, Uganda and Tanzania. The choice of the three countries is informed by the fact that they constitute the founding members of the EAC, and that the Community has currently attained a significant level of integration among other regional economic communities (RECs) in sub-Saharan Africa (SSA). At the level of a common market, the EAC has undertaken a range of reforms to reduce trade barriers and inadvertently expose firms to regional and external import competition that may have a bearing on innovative activities among firms. This is clear from the level of tariff liberalisation undertaken at EAC relative to other RECs, as illustrated in Figure 1 below.

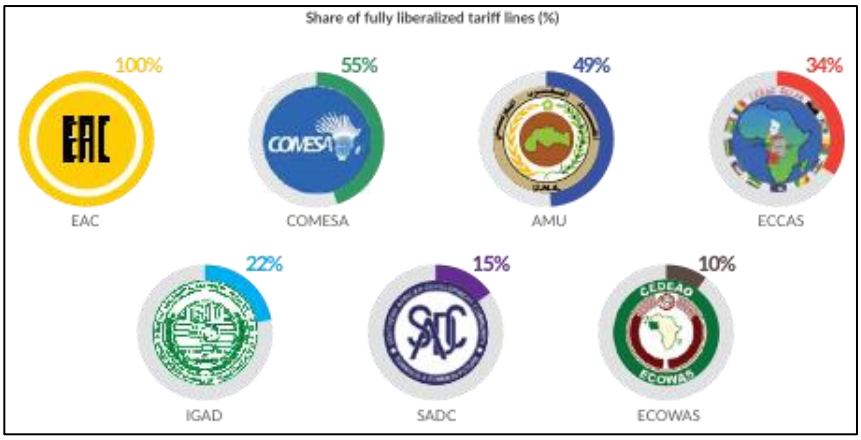


Figure 1 Tariff liberalisation across African Regional Economic Communities (RECs)
Source: UNECA et al. (2016)

Within this context, this chapter assesses the link between HRM practices and firm competitive strategies that foster product competitiveness. The rest of the chapter is structured as follows: Part 2 provides an exposition on the theoretical underpinnings and conceptual framework. Part 3 highlights the methods and data used. In part 4 the descriptive analysis and discussion of findings are presented, while part 5 presents conclusive remarks, limitations of the chapter and potential areas for further research.

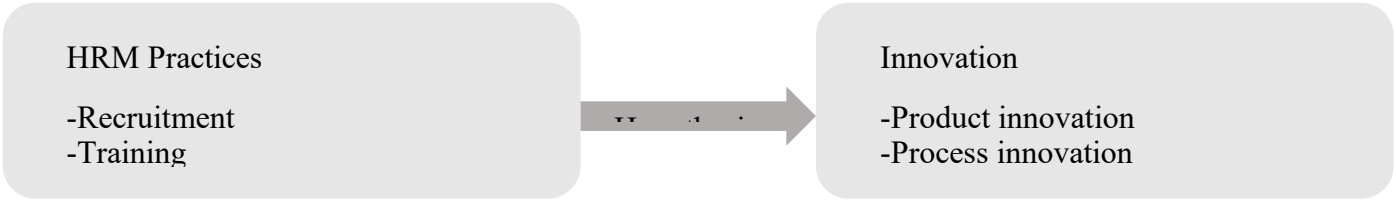
2 Theoretical underpinnings

The theoretical underpinnings that link HRM practices to innovative activity within an organisation are anchored on the resource-based view (RBV) and ability motivation and opportunity (AMO) theories[15]. The RBV theory establishes that human resources enable firms to achieve competitive advantage[16], whereas AMO shows the link between better firm performance driven by better-performing employees who are motivated.[17] It thus is expected that firms keen to create new products and processes that enhance their competitive advantage are more likely to treat HRM practices as an important organisational strategy[18] that recruits, train, reward, and encourage teamwork.

The implication of these arguments is that HRM practices are expected to be positively related to organisational innovation. However, it could be argued that the empirical link between HRM and innovation activity is expected to be stronger in developed countries relative to least-developed economies, given that most of these studies were undertaken in better-developed systems that foster research and development. In this regard, our main hypothesis is constructed as follows:

Hypothesis: The level of HRM practices (recruitment, training) will be positively related to firm innovation (product innovation, process innovation).

The conceptual framework based on the literature and the research hypothesis is as follows.



[15] JB Barney 'Strategic factor markets: Expectations, luck and business strategy' (1986) 32 *Management Science* 1231-1241; JB Barney 'Firm resources and sustained competitive advantage' (1991) 17 *Journal of Management*, Vol.17, No.1, pp. 99-120; J Paauwe & P Boselie 'HRM and performance: What's next?' (2005) 15 *Human Resource Management Journal* 68-83; CL Tan & AM Nasurdin 'Human resource management practices and organisational innovation: Assessing the mediating role of knowledge management effectiveness' (2011) 9 *Electronic Journal of Knowledge Management* 85-180.

[16] Barney (1986) (n 15); Barney (1991) (n 15) 99-120.

[17] Paauwe & Boselie (n 15) 68-83.

[18] ZM Wang 'Organisational effectiveness through technology innovation and HRM strategies' (2005) 26 *International Journal of Manpower* 481-487.

Figure 2 Conceptual framework

Source: Adapted from Jan Kees and others (2004)

Note: Recruitment and training are the main variables in the study.

This chapter utilises available firm-level survey data collected by the World Bank in 2013 in their Enterprise Survey initiative on firms from three East African countries, Kenya, Uganda and Tanzania, to assess the link between HRM practices and organisational innovation even in the least developed economies with relatively less developed systems.

3 Methodology

This chapter utilises a rich data dataset on 1 541 firms surveyed by the World Bank from three East African countries – Kenya, Uganda and Tanzania – during the 2013-2014 period. The survey conducted by the World Bank Enterprise Surveys programme was specifically designed to capture the innovation activities of firms. The data was collected in 2013 on firms from Kenya, Uganda and Tanzania in the World Bank 2013 Enterprise follow-up innovation surveys.[19] A total of 549 successful interviews were performed in Kenya with business owners and top managers from October 2013 to February 2014. The firms include food processing, textiles and garments, chemicals, plastics and rubber, retail, other manufacturing, and other services located in major towns of Kenya in Central, Nairobi, Mombasa, Nakuru and Nyanza regions. On the other hand, a total of 543 successful interviews in Tanzania were performed with business owners and top managers from October 2013 to February 2014. The firms were located in Arusha, Dar es Salaam, Mbeya, Mwanza and Zanzibar. For Uganda, a total of 449 successful interviews were performed with business owners and top managers from September 2013 to January 2014 on firms located in Kampala, Jinja, Lira, Mbale, Mbarara and Wakiso.

The main variables of interest are derived from the questionnaires. The questionnaire provides responses on the product, process, organisational and marketing innovation. The main questions of interest in the questionnaire are those that relate to the innovation activity of the firm (product, process, and organisational innovation) and those that identify HRM practices (recruitment, training). In the questionnaires, the questions on innovation activity asked respondents to indicate if they introduced a new innovation and the number of innovations

[19] https://www.enterprisesurveys.org/en/survey-datasets accessed 3 Aug 2018

(product, process and organisation) introduced. The identifiers for HRM are captured in questions that ask the respondents if the organisation recruited employees specifically for the innovation activity, changes in skilled and unskilled workers, and training is specifically done to support the innovation activity.

Descriptive statistics of the data set are explored to assess the link between HRM practices and the innovation activities of the firms. The descriptive statistics are derived from responses to the relevant questions that identify HRM practices and innovation activities at the firm level. The questionnaires used for the World Bank Enterprise surveys provide easy identification of the questions and responses characterising the innovation endeavours and HRM practices at the firm.

4 Analysis and findings

Preliminary analysis indicates the perceived exposure to product market competition among the firms for the three countries. Table 1 presents the basic characteristics of the firms in the sample. In terms of the perceived intensity of completion exposure, domestic competition appears to be considered a significant threat by firms relative to competition from foreign-based firms through import competition. In terms of firm size, the firms in the sample depict the observed small-scale phenomenon as the dominating feature, with an average of over 55 per cent in Uganda and Tanzania. This is, however, different for Kenya, with more firms in the medium-scale category relative to its smaller economy neighbours. Similarly, in terms of age, most of the firms are relatively younger, with most under 20 years on average since establishment.

Table 1 Firm characteristics

	Uganda	Tanzania	Kenya
Number of firms	445	524	540
Perceived domestic competition	81%	70%	85%
Perceived foreign competition	34%	48%	48%
Firm size			
Small (5-19 employees)	63%	55%	31%
Medium (20-99 employees)	29%	32%	39%
Large (100 employees)	8%	13%	30%
Firm age			

Young (<20 years)	67%	59%	45%
Mid (21-50 years)	31%	38%	46%
Old (>51 years)	2%	3%	9%

Source: Author's computation based on World Bank Enterprise Survey data

4.1 Innovation activities

Interestingly, the perceived positive correlation between larger firms and innovation activities driven by scale economics does not seem to be supported by the data, as illustrated in Table 2. The proportion of firms that introduced a new product is relatively higher in Uganda and Kenya but not in Tanzania. However, research and development (R&D) activities were more pronounced among Tanzanian firms than in Uganda, whereas in both process and product innovation, firms in Uganda indicate an active engagement in innovation activities.

Table 2 Pattern of innovation activities at the firm level

	Uganda		Tanzania		Kenya	
Type of innovation activity	*No.*	*%*	*No.*	*%*	*No.*	*%*
New product	238	53	89	16	233	43
Process	226	50	205	38	209	38
Internal R&D	65	15	121	22	136	25

Source: Author's computation based on World Bank Enterprise Survey data

In a business era in which access to information through the internet and social media is increasingly becoming more predominant, it is tempting to perceive that firms keen to tap into new ideas are more likely to turn to the internet and social media to feed their new knowledge needs. Interestingly, across the three countries, firms appear to depend heavily on customer feedback for information and new ideas to drive innovation activities, as illustrated in Figure 3. Even within this information channel, a higher proportion of Kenyan firms appear to source their ideas from customer feedback, followed by the firms in Tanzania and Uganda.

However, it can be inferred that after customer feedback, the internet is the second-most important source of new ideas for Kenyan firms implying relative intensities in both infrastructure and use of ICT services among the firms across the three countries. Notable is the limited role of

the universities and research institutions perceived as sources of new ideas by the firms across the three countries. This is interesting as it may signal the disconnect between the research focus of universities and research institutions hence rendering it irrelevant for firms.

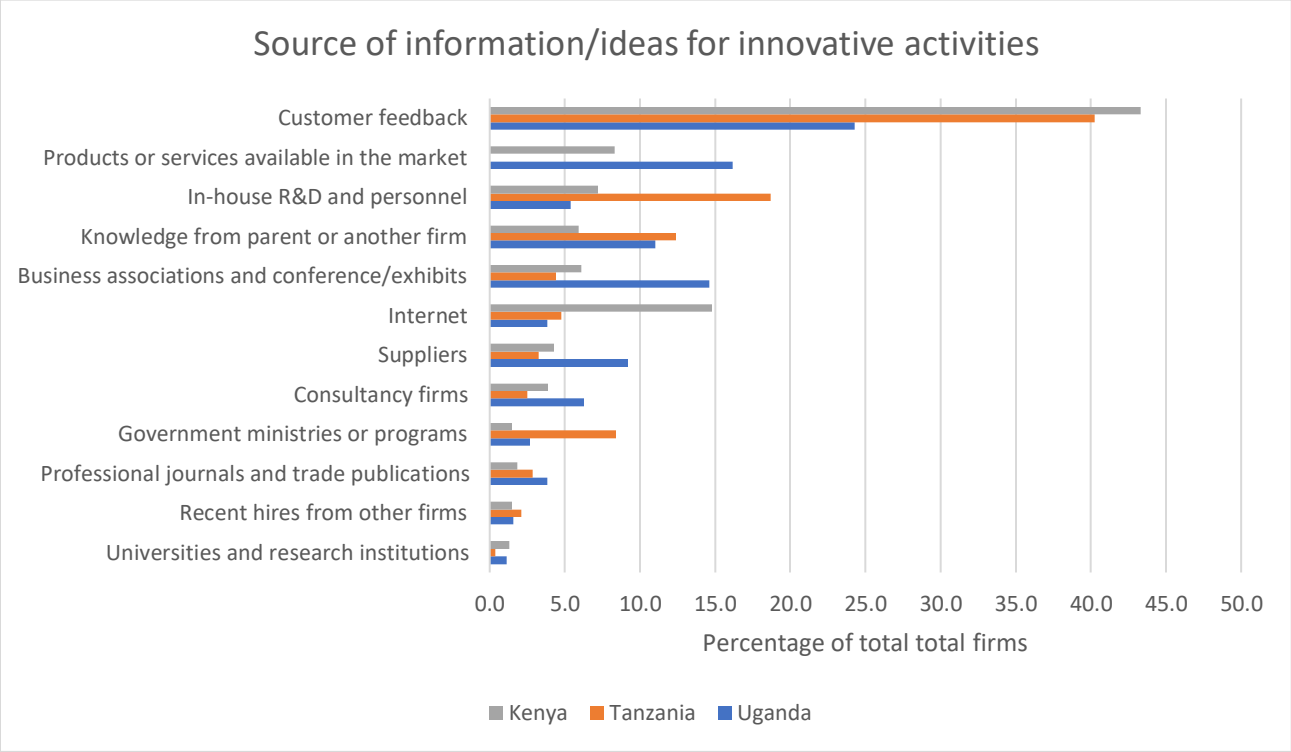


Figure 3 Source of information or ideas for innovation activities

Source: Author's computation based on World Bank Enterprise Survey data

Within the pursuit of new products and new processes, both theoretical and empirical literature highlights the role of HRM practices. As reflected in the introduction, this evidence has predominantly been associated with firms in developed and emerging economies. How significant are the HRM practices among firms in a sub-Saharan African setting? To draw some insight, we present in Table 3 the number of firms and their relative proportion among those firms involved in HRM practices. The HRM practices captured in the survey questionnaire include recruitment and training specifically for product and process innovation activities.

Overall, the survey data indicate a relatively higher proportion of firms in Kenya that utilise HRM practices compared to their counterparts in Uganda and Tanzania. In Table 3, about 43 per cent of the firms recruited new employees specifically for product innovation, whereas Tanzania and Uganda had 22 per cent and 36 per cent, respectively. Similarly, for process innovation, 45

per cent of Kenyan firms recruited new employees specifically for this activity, relative to 29 per cent and 26 per cent in Uganda and Tanzania, respectively.

Table 3 HRM practices

	Uganda		Tanzania		Kenya	
HRM practice	*No.*	*%*	*No.*	*%*	*No.*	*%*
Recruitment for product innovation	85	36	20	22	100	43
Recruitment specific to process	65	29	53	26	95	45
Training specific to innovation	104	23	136	25	198	36

Source: Author's computation based on World Bank Enterprise Survey data

Training is critical to ensure that employees have the requisite competencies to craft new designs and processes. This is supported by the extant literature, and it is evident in the survey data. Based on the survey data, 36 per cent of the firms in Kenya that innovated conducted specific training for the purposes of innovation activities, whereas Uganda and Tanzanian firms that innovated had 23 and 25 per cent, respectively.

Would it imply that firms that hired employees for specific innovation activities innovated? As the survey data illustrates in Table 4, it appears that this is not necessarily the case that the use of HRM practices by firms translates into innovation activities. This would be the rationale given that HRM practices constitute critical factors that spur innovation activities for firms. The survey data indicates that among firms that hired new employees specifically for innovation activities and introduced new products, Kenya had the highest proportion with 43 per cent, followed by Uganda with 38 per cent and Tanzania with 22 per cent. The data shows similar relative distribution among the firms that introduced new processes but had hired employees specifically for the activity. Evidence shows that Kenyan firms explored this channel relatively more than firms in the other countries, with 45 per cent of the firms, followed by Uganda with 29 per cent and Tanzania with 26 per cent.

Table 4 HRM practices deployed for innovation activities

	Uganda		Tanzania		Kenya	
Interactions	*No.*	*%*	*No.*	*%*	*No.*	*%*

Employees hired for product innovation	85	38	20	22	100	43
Employees hired for process innovation	65	29	53	26	95	45
Training specific for product innovation	70	30	25	28	123	53
Training specific for process innovation	66	29	90	45	114	55
Training specific for R&D	35	54	70	58	90	67

Source: Author's computation based on World Bank Enterprise Survey data

The prominence of Kenyan firms may highlight the relatively higher likelihood of innovation given the more aggressive and developed business environment and relatively larger firms than the other two neighbours. From Table 5, it is evident that Kenya ranks higher than the other two countries in terms of per capita gross domestic product (GDP) and competitiveness index.

Table 5 Basic indicators of the three countries

	Population ('000)	Population density (people per km2)	GDP (US $millions)	GDP per capita (US $)	Av annual real GDP growth 2010-2020(%)
Kenya	50951	88	177441	3483	5.9
Uganda	44271	183	96658	2183	5.1
Tanzania	59091	62	175929	2977	6.8

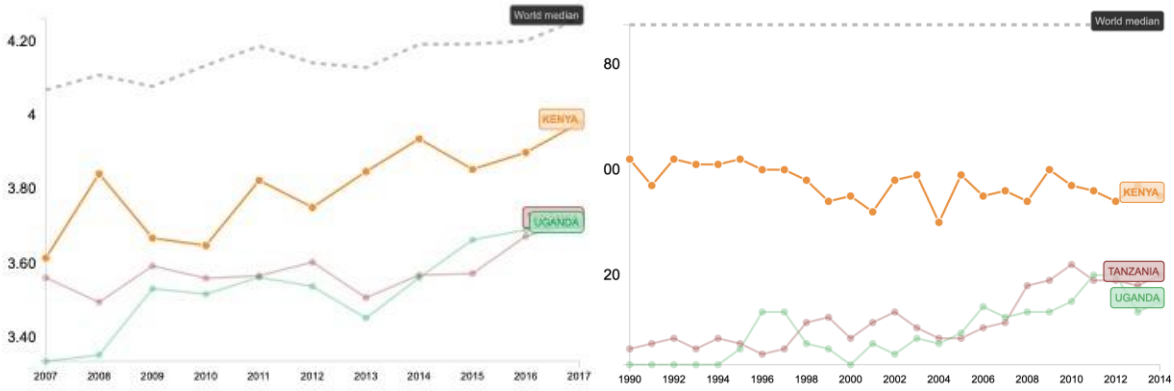
Source: AfDB (2019)

In terms of country competitiveness and competitive industrial performance comparison, Kenya performs better than Uganda and Tanzania,[20] as shown in Figure 4. In the first graph, Kenya gained country competitiveness ranking by about 1,02 percentage points over the 2007-2017 period. Uganda improved its competitiveness ranking in 2014, overtaking Tanzania but still less than Kenya. To support the argument that Kenya has a more competitive business environment, the competitive industrial performance for Kenya has been relatively higher than Uganda and

[20] https://tcdata360.worldbank.org accessed 9 Aug 2021

Tanzania over the 1990-2014 period. This would imply that the firms in Kenya are more likely to pursue an innovation strategy to foster their competitive edge.

Figure 4 Competitiveness index and competitive industrial performance comparison



Source: World Bank TCdata360

However, the training conducted by the firms that innovated presents an interesting picture, with firms that developed in-house R&D indicating relatively similar proportions in terms of the training conducted across the firms in the three countries. On average, about 55 per cent of the firms that introduced in-house R&D across the three countries conducted training specifically to facilitate this innovation activity.

Differences appear to be in both product and process innovation. The proportion of firms that introduced new products was distributed with the highest at 53 per cent in Kenya, followed by Uganda at 30 per cent and Tanzania at 28 per cent. Uganda and Tanzania had relatively similar proportions, probably owing to the similarity in the level of economic development in the two countries relative to Kenya. A similar pattern is evident for process innovation, although firms in Tanzania appear to have a relatively higher proportion of 45 per cent compared to product innovation with only 28 per cent.

5 Conclusions and areas for further research

Based on the survey data, preliminary evidence in Uganda, Tanzania and Kenya indicates the potential role of HRM activities as key strategic dimensions in firm innovation. This is clear from the descriptive statistics for product and processes innovation activities in terms of key HRM

practices, particularly recruitment and training. Moreover, survey data also highlights the importance of HRM practices in firm innovation. The policy implication is that enhanced product competitiveness should diminish the perceived fears of competition by firms in Kenya, Uganda, and Tanzania. This diminished fear of competition will lead to reducing non-tariff barriers (NTBs) and increasing intra-regional trade among these countries. In the context of the ongoing integration efforts within the African continent towards the AfCFTA, the insights from this chapter reinforce the need for a competitive product by firms. This has a direct bearing on market entry to export markets, given the relatively limited preference utilisation by most African countries in preferential arrangements. This could boost regional value chains and intra-regional trade.

In terms of further work, it is not clear, however, the extent to which HRM practices may drive innovation or *vice versa*. Since the analysis of causative dimensions has not been covered, such a useful inference constitutes an area for further research. Equally, it will be useful to examine the role of firm characteristics as an intermediating role in the HRM innovation interrelationship. The research could also be extended by incorporating firm competition in the equation to assess its impact on innovative activities and the intensity of utilisation of HRM practices. It introduces other dimensions that could be explored, for example, that which drives the incentive of the firm to expand and its implications on product competitiveness.

References

AfDB (2019), 'East Africa Economic Outlook 2019, a report by the African Development Bank Group

AfDB/OECD/UNDP (2017) *African Economic Outlook 2017: Entrepreneurship and Industrialisation*, OECD Publishing, Paris, https://doi.org/10.1787/aeo-2017-en

Arvanitis, S 'Modes of labour flexibility at firm level: Are there any implications for performance and innovation? Evidence for the Swiss economy' (2005) 14 *Industrial and Corporate Change* 993

Aryanto, R, Fontana, A & Afiff, AZ 'Strategic human resource management, innovation capability and performance: An empirical study in Indonesia software industry' (2015) 211 *Procedia-Social and Behavioural Sciences* 874

Barney, JB 'Strategic factor markets: Expectations, luck and business strategy' (1986) 32 *Management Science* 1231

Barney, JB 'Firm resources and sustained competitive advantage' (1991) 17 *Journal of Management* 99

Beugelsdijk, S 'Strategic human resource practices and product innovation' (2008) 29 *Organisation Studies* 821

Bohnet, I & F Oberholzer-Gee *Pay for performance: Motivation and selection effects* (Harvard Business School 2001)

Booyens, I 'Are small, medium and micro-sized enterprises engines of innovation? The reality in South Africa' (2011) 38 *Science and Public Policy* 67

Cohen, WM & Klepper, S 'Firm size and the nature of innovation within industries: The case of process and product R&D' (1996) 78 *Review of Economics and Statistics* 232

Ennen, E & Richter, A 'The whole is more than the sum of its parts: Or is it? A review of the empirical literature on complementarities in organisation' (2010) 36 *Journal of Management* 207

Hayek, FA 'The use of knowledge in society' (1945) 35 *American Economic Review* 519

Jensen, MC & Meckling, WH, 'Specific and general knowledge and organisational structure' in Werin, L & Wijkander, H (eds) *Contract economics* (Oxford 1992) 251

Jiang, K, Lepak, D, Hu, J & Baer, J 'How does human resource management influence

organisational outcomes? A meta-analytic investigation of mediating mechanisms' (2012) 55 *Academy of Management Journal*

Jiménez-Jiménez, J & Sanz-Valle, R 'Innovation and human resource management fit: An empirical study' (2005) 26 *International Journal of Manpower* 364

Laursen, K & Foss, NJ 'New human resource management practices, complementarities and the impact on innovation performance' (2003) 27 *Cambridge Journal of Economics* 243

Laursen, K & Foss, NJ 'Human resource management practices and innovation' in Dodgson, M, Gann, DM & Phillips, N (eds) *The Oxford Handbook of Innovation Management* (Oxford 2014)

Looise, JK & Van Riemsdijk, M 'Innovating organisations and HRM: A conceptual framework' (2004) 15 *Management Revue* 277

Love, J & Roper, S 'Organising innovation: Complementarities between cross- functional teams' (2009) 29 *Technovation* 192

Michie, J & Sheehan, M 'HRM practices, R&D expenditure and innovative investment: Evidence from the UK's 1990 Workplace Industrial Relations Survey' (1999) 8 *Industrial and Corporate Change* 211

Özbağ, GK, Esen, M & Esen, D 'The impact of HRM capabilities on innovation mediated by knowledge management capability' (2013) 99 *Procedia-Social and Behavioural Sciences* 784

Paauwe, J & Boselie, P 'HRM and performance: What's next?' (2005) 15 *Human Resource Management Journal* 68

Schmelter, R., Mauer, R., Börsch, C., & Brettel, M. (2010). Boosting corporate entrepreneurship through HRM practices: Evidence from German SMEs. *Human Resource Management*, *49*(4), 715-741.

Schumpeter, JA *The theory of economic development: An inquiry into profits, capital, credit, interest and the business cycle* trans Opie, R (Oxford University Press 1912/1934)

Shipton, H, Fay, D, West, M, Patterson, M & Birdi, K 'Managing people to promote innovation' (2005) 14 *Creativity and Innovation Management*118

Tan, CL & Nasurdin, AM 'Human resource management practices and organisational innovation: Assessing the mediating role of knowledge management effectiveness' (2011) 9 *Electronic Journal of Knowledge Management* 85

UNECA African Union and AfDB (2016), Assessing Regional Integration in Africa (ARIA VII): Innovation, Competitiveness and Regional Integration

Wang, ZM ‘Organisational effectiveness through technology innovation and HRM strategies’ (2005) 26 *International Journal of Manpower* 481

Zhang, Z, Wan, D & Jia M ‘Do high-performance human resource practices help corporate entrepreneurship? The mediating role of organisational citizenship behaviour’ (2008) *Journal of High Technology Management Research* 128

Zhou, H, Dekker, R & Kleinknecht A ‘Flexible labour and innovation performance: Evidence from longitudinal firm-level data’ (2011) 20 *Industrial and Corporate Change* 941

Zoghi, C, Mohr, R & Meyer, P ‘Workplace organisation and innovation’ (2010) 43 *Canadian Journal of Economics-Revue Canadienne De Economique* 622