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# The impact of dynamic capabilities on competitive advantage: an empirical study of firms in the customs clearing and freight forwarding industry in Zimbabwe

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**Abstract:** Although the impact of dynamic capabilities on competitive advantage has been subjected to recurrent scrutiny in both theoretical and empirical studies, there is however still no consensus. In addition, such studies have been skewed towards developed countries. This study cures both the geographical gap and the disagreement among researchers by testing the relationship between dynamic capabilities and competitive advantage from a third world perspective. Based on a survey of 70 firms in the customs clearing and freight forwarding industry in Zimbabwe, this study finds that dynamic capabilities are the holy grail of competitive advantage. This significant linkage reduces the scarcity of empirical support to the relationship between dynamic capabilities and competitive advantage.

**Keywords:** dynamic capabilities; competitive advantage; VUCA; sensing capabilities; seizing capabilities; reconfiguration capabilities.

**Reference** to this paper should be made as follows: Mutsvanga, T. (2021) 'The impact of dynamic capabilities on competitive advantage: an empirical study of firms in the customs clearing and freight forwarding industry in Zimbabwe', *Int. J. Sustainable Strategic Management*, Vol. 9, No. 1, pp.34–50.

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## 1 Introduction

The current business landscape is characterised by volatile, uncertain, complex and ambiguous (VUCA) conditions. The notion of VUCA owes its existence to the US Army War College where it was initially coined in the late 1990s. Thereafter, it was adopted by strategic business leaders to describe the chaotic, turbulent and rapidly changing business environment that has become the 'new' normal (Ara and Kumar Das, 2014). In such an environment like the one obtaining in Zimbabwe, all companies, be they public or private, which continue to operate in a default mode as they will be writing their operational obituary. Put simply, companies can continue to operate in their traditional ways at their own peril. VUCA-type worlds destabilise the smooth operations of companies. The destabilising effect of VUCA conditions requires more than simply having better ordinary capabilities; it calls for strong dynamic capabilities (Schoemaker

et al., 2018). Similarly, to succeed in environments aforesaid, there is need to integrate functions and processes within the company to create dynamic capabilities (Millar et al., 2018). Therefore, it is crystal clear that dynamic capabilities are a potential antidote to negative effects that are brought about by the VUCA world. As such, in recent years, dynamic capabilities have become a key topic in management research (Easterby-Smith et al., 2009). Similarly, recent bibliometric studies (Vogel and Guttel, 2013; Stefano et al., 2010) corroborate the prevalence of studies focusing on dynamic capabilities in the strategy research.

Further, research on dynamic capabilities stands amongst the most prolific streams of research within the field of management for the last two decades (Albort-Morant et al., 2018). Several scholars (Teece, 2012, 2018; Teece et al., 1997; Eisenhardt and Martin, 2000) have asserted that dynamic capabilities constitute a solid foundation for sustainable competitive advantage especially in today's dynamic environment. The universal positive influence of dynamic capabilities on competitive advantage was also recognised by Schilke (2014). According to Breznik and Lahovnik (2016), the durability of firms' competitive advantage has been decreasing over time and this has drawn the attention of both researchers and scholars alike. Coincidentally, both VUCA and dynamic capabilities concept were brought to the fore around the same time, the late 1990s. Therefore, if the argument by Breznik and Lahovnik (2016) is anything to go by, then research interests on the link between dynamic capabilities and competitive advantage started or ought to have started in earnest in the late 1990s.

It is noteworthy that the value that is derived from dynamic capabilities largely depends on the economic context. Dynamic capabilities thrive most in situations where they are rare and the rate of innovation and experimentation is low. To that end, the performance benefits conferred by dynamic capabilities would be more pronounced in developing countries (Fainshmidt et al., 2016). Surprisingly, previous studies in this area mainly focus on firms operating in Western developed markets and little is known about what dynamic capability is and its relationship with performance in transition economies (Li and Liu, 2014) and such a vacuum is even more pronounced in developing countries such as Zimbabwe. Literature is replete with exemplar studies which investigated the relationship between competitive advantage and dynamic capabilities from the perspective of developed economies (see Schilke, 2014; Breznik and Lahovnik, 2016; Wilhelm et al., 2015). Be that as it may, the concept of dynamic capabilities, although widely mentioned in strategic management literature, still remains not enough empirically tested (Tajala, 2013). Given the above limitations, it has remained difficult to ascertain the value of dynamic capabilities for a firm's competitive advantage (Schilke, 2014) especially in less developed countries in general and Zimbabwe in particular.

There is a general consensus in literature that customs duty is an important revenue stream for the majority of governments in less developed countries. This is consistent with trends in Zimbabwe where customs duty has been among the three major contributors of tax revenue in Zimbabwe (Zhou and Madhiken, 2013). According to the said authors, customs duty has been contributing more than 16% of the total revenue. In concurrence, Zake (2011) averred that in Zimbabwe the average contribution of customs duty has been 15.2%. Customs duty is mainly levied from importers and exporters. With regard to the majority of transactions, there is no line of sight between the revenue authority and importers/exporters. It is the customs clearing and freight forwarding companies which act on behalf of importers, exporters and transporters in as far as shipping, freight forwarding and customs clearing are concerned. The freight forwarding

industry is the lifeline of every country in terms of trade, there can be no trade without freight forwarding and customs clearing (Mawanza et al., 2018). Due to small capital requirements and low entry barriers, the industry is characterised by cut throat competition. Resultantly, companies which continue hewing at their traditional radar will get a tough landing. But how can they crash land when dynamic capabilities have long been touted as a potential source of competitive advantage? The response is that both the industry and this part of the world have escaped the attention of academics for quite a long time and therefore, the conceptualisation and contribution of dynamic capabilities to competitive advantage remains unknown. This study sought to cure the glaring literature gap through establishing the relationship between dynamic capabilities and competitive advantage of firms in the customs clearing and freight forwarding industry.

## **2 Theoretical framework**

### *2.1 Dynamic capabilities view*

The dynamic capabilities view came forth as a direct response to the criticisms that were levelled against the resource-based view (RBV). In this connection, The DC view can be conceptualised as a modified, somewhat ‘updated’ view of the RBV (Cavusgil et al., 2007). There is a variety of research articles which explicate the origins, evolution and definitions of the DCV. As Peteraf et al. (2013) remark, the developments in the field of dynamic capabilities are strangling on two umbilical cords of two papers by Teece et al. (1997) and Eisenhardt and Martin (2000). In other words, the genesis of the DCV can be traced back to the work of these authors. Therefore, the interests of justice cannot be served if definitions of the concept are not connected to and collected from the source. As a point of entry, dynamic capabilities are higher-level competences that determine the organisation’s ability to integrate, build, and reconfigure internal and external resources/competences to address, and possibly shape, rapidly changing business environments (Teece et al., 1997). Equally, dynamic capabilities refer to the organisation’s processes that use resources – specifically the processes to integrate, reconfigure, gain and release resources – to match or even create market change (Eisenhardt and Martin, 2000).

Thereafter, several scholars took aim at the definitions with a view of coming up with an agreed position. To that end, renowned contributors to the dynamic capabilities view worked in concert and came up with a refined definition. They define dynamic capabilities as the capacity of an organisation to purposefully create, extend, or modify its resource base (Easterby-Smith et al., 2009). This is the definition that was adopted in the study. However, it is worth noting that the definition did not settle the debate. The dynamic capability construct is still suffering from lack of definitional clarity. This is exemplified in numerous recent studies (e.g., Easterby-Smith et al., 2009; Barreto, 2010; Wilhelm et al., 2015).

From the above definition, it is clear that dynamic capabilities are deliberately activated. The spray gun approach is excluded from this definition. The concept of aiming at nothing and in the end, immaculately hitting at something does not have space in the concept of dynamic capabilities. In other words, the element of luck is not part of dynamic capabilities. Furthermore, the definition distinguishes between resources and dynamic capabilities. In short, the two are not synonyms but dynamic capabilities are

processes which impact upon resources. According to Ambrosini and Bowman (2009), the adjective 'dynamic' in the dynamic capabilities construct does not refer to environmental dynamism, neither does it refer to capabilities themselves but it relates to changes in the resource base and the renewal of resources. Finally, it is critical that a distinction be made between dynamic capabilities and strategy. Teece (2012) argues that a mixture of dynamic capabilities and a good strategy will enable an organisation to satisfy the needs of its customers and exploit competitive opportunities that may arise. Therefore, dynamic capabilities ought to be used in conjunction with, not in place and instead of, a good strategy.

## *2.2 Types of dynamic capabilities*

Different authors propose different types of dynamic capabilities. However, the issue of whether or not such types, varied as they are, can be developed and honed in a single organisation has not been adequately addressed in the literature. In this study, dynamic capabilities were categorised as sensing, seizing and reconfiguration capabilities (Teece, 2007; Johnson et al., 2011; Zitkiene et al., 2015; Mgbemena, 2016; Helfat and Peteraf, 2015).

### *2.2.1 Sensing capabilities*

According to the dynamic capabilities framework that was developed by Teece (2007), sensing constitutes the first process of dynamic capabilities. Sensing new opportunities is very much a scanning, creation, learning and interpretive activity (Teece, 2007). From a broader perspective, sensing capabilities entail identification and assessment of an opportunity (Teece, 2012) while Johnson et al. (2011) view them as capabilities whose role is to sense opportunities and threats. Likewise, Roy and Khokle (2016) note that sensing does not only border on the realisation that rapid change is occurring but it requires the integration of such information in a meaningful manner. Evidence from emerging literature further suggest that this task falls squarely on the shoulders of top management. For example, Helfat and Peteraf (2015) posited that sensing capabilities mainly draw on two managerial cognitive capabilities namely perception and attention.

From the foregoing, it is evident that sensing capabilities enable an organisation to scan and interpret its external environment. The idea behind is to enable an organisation to identify opportunities ahead of its current and/or potential competitors before they become obvious. If done successfully, sensing enables an organisation to focus on where it will be tomorrow, rather than on where it is today (Agwunobi and Osborne, 2016). In this regard, Wilhelm et al. (2015) argue that sensing capabilities places an organisation on a vantage point where it can uncover latent demand, assess risk timely and detect both offensive and defensive tactics of competitors without being compromised. From a slightly different angle, sensing refers to the appreciation of market and technological opportunities and the mobilisation of the required resources (Katkalo et al., 2010; Inan and Bititci, 2015). The definition pays particular attention to technological opportunities. Therefore, CEOs that pay more attention to, and more accurately perceive, emerging shifts in technology and customer demand are more likely to sense new opportunities, and therefore may move more quickly (Helfat and Peteraf, 2015). The general framework developed by Teece et al. (1997) present sensing capabilities as a point of departure as it marks the point where either an opportunity or threat posed by the external environment

is detected. One should not be surprised, therefore if an enterprise senses a business opportunity but fails to invest (Teece, 2007) because what is required in sensing is completely different from what is needed in seizing.

### *2.2.2 Seizing capabilities*

The second stage in the dynamic capabilities framework adumbrated above is known as seizing. Once an organisation senses new strategic options, it has to activate them through a process called seizing. This relates to mobilisation of resources to address an opportunity and to capture value from doing so (Teece, 2012). Similarly, Teece (2007) posited that opportunities and threats that are discovered through sensing call for some kind of investment so as to thwart the threats or exploit the opportunities. This could be achieved through the introduction of new products and services (Teece, 2007) and effecting incremental changes to existing business models (Helfat and Peteraf, 2015). The gist of the foregoing argument is that there is need for meticulous deployment of resources so that an organisation can fully address opportunities and threats arising from the external environment. With regards to micro foundations of seizing capabilities, Teece (2007) remarked that the manner in which an organisation delivers value to its customers, lures customers to pay for value in an endeavour to realise profits is dependent on the business model employed.

However, the mere fact that an organisation is adept at sensing opportunities does not mean that the same will apply to seizing. This is so because managerial skills needed to sense are quite different from those needed to seize and those needed to reconfigure (Teece, 2007). Teece (2007) posited that new products or services could be another way of addressing a sensed opportunity. Such a task falls squarely on the shoulders of chief executive officers. There is evidence to suggest that CEOs account for nontrivial variations in organisational performance. According to Helfat and Peteraf (2015), this is referred to as CEO effect. The ability of CEOs to make timely and informed investment decisions as well as designing sound business models determines how well an organisation can seize an opportunity. This brings with it advantages that are associated with striking early. In actual fact, the organisation structure and business model should be ready for such exploitation of opportunities (Kindstrom et al., 2013). Per Teece (2007) model referred to in the foregoing paragraph, seizing capabilities are positioned at the middle, following sensing and followed by reconfiguration capabilities.

### *2.2.3 Reconfiguration capabilities*

When opportunities are sensed and seized, reconfiguration follows. Without doubt, this enables an organisation to remain evolutionary fit. Likewise, reconfiguration is needed to maintain evolutionary fitness and, if necessary, to try and escape from unfavourable path dependencies (Teece, 2007). Evolutionary fitness refers to how well a dynamic capability enables an organisation to make a living by creating, extending or modifying its resource base (Helfat et al., 2007 as cited in Helfat and Peteraf, 2009). Reconfiguration capabilities, as the third leg of the dynamic capabilities triad (Helfat and Peteraf, 2015), refers to the transformation and recombination of assets and resources (Ambrosini and Bowman, 2009). According to Agwunobi and Osborne (2016), the possession of dynamic capabilities brings with it an ability for organisations to transform and reconfigure themselves to gain and sustain competitive advantage. Accordingly, reconfiguration has

been recognised by Teece et al. (1997) and Teece (2007) as a core element of dynamic capabilities which plays a pivotal role in achieving sustainable competitive advantage. Further, the need to recombine and reconfigure organisational resources has been heightened by the ever-changing technological environment and shifting customer preferences. Similarly, Eisenhardt and Martin (2000) refer to a dynamic capability that is responsible for reconfiguring resources as patching. Through patching, an organisation can combine, add or split resources. At this stage, managers achieve synergistic resource combinations in ways which do not result in these resources diminishing their value.

### *2.3 Competitive advantage*

The concept of competitive advantage has dominated strategic management research but surprisingly, there is no unanimously agreed definition. Several attempts were made to come up with a precise definition but the endeavour is proving to be a wild goose chase. Arguably, the first formal definition of the competitive advantage was coined by Barney (1991). He notes; “A firm is said to have a competitive advantage when it is implementing a value-creating strategy not simultaneously being implemented by any current or potential competitors”. The definition was heavily criticised notably by Foss and Knudsen (2002). Resultantly, a refined definition emerged. An enterprise has a competitive advantage if it is able to create more economic value than the marginal (breakeven) competitor in its product market (Peteraf and Barney, 2003) where economic value is regarded as the difference between perceived customer value and the cost of production. Consistent with this conceptualisation, superior firm performance relative to rivals commonly serves as an empirical indicator of competitive advantage (Schilke, 2014).

Recent scholarship shows that the definitional lacunae is there to stay. Wirda et al. (2019) see competitive advantage as an outcome of strategy implementation through utilisation of different organisational resources. The definition misses the relative aspect that is associated with competitive advantage. Also, it considers any result, whether intended or not, as competitive advantage. Further, competitive advantage is the ability of one organisation to outperform others because it produces desired goods or services more efficiently and effectively than its competitors (Nwabueze and Mileski, 2018). Although different from the definition by Peteraf and Barney, they share a lot of commonalities. Therefore, the study adopts the definition by Peteraf and Barney (2003).

### *2.4 The influence of dynamic capabilities on competitive advantage*

There is overwhelming evidence to suggest that literature on the relationship between dynamic capabilities and competitive advantage is sharply divided. This explains why there has been abundant debate around the purpose of dynamic capabilities (Mohamad and Sarpong, 2016). According to Teece (2007), the ambition of dynamic capabilities is not only to account for variations in enterprise-level competitive advantage, but to assist managers in overcoming zero profit conditions which may confront homogeneous firms operating perfectly competitive markets. From the above, it is evident that Teece proposed a positive link between dynamic capabilities and competitive advantage. This view confirms the earlier proposition by Teece et al. (1997) that there is a positive relationship between dynamic capabilities and competitive advantage especially in situations of environmental dynamism. However, Barreto (2010) conducted a review of

past research and established that there was a plethora of studies whose findings were pointing in a different direction as they had shown less confidence in them being regarded as predictors of competitive advantage. The same viewpoint had been initiated by Eisenhardt and Martin (2000) who recognised that dynamic capabilities are necessary but not sufficient enough to create competitive advantage. Per their argument, long-term competitive advantage does not stem from dynamic capabilities themselves but it is a product of resource configurations which they create. To this end, the source of long-term competitive advantage lies in using dynamic capabilities sooner, more astutely, or more fortuitously than the competition to create resource configurations that have that advantage (Eisenhardt and Martin, 2000). While the above views seem to proffer different outcomes of dynamic capabilities, a closer look at the import of their arguments suggest that link between dynamic capabilities and competitive advantage is not outrightly denied. Where there is perhaps less agreement in prior work is on the question of the extent to which dynamic capabilities necessarily confer competitive advantage (Helfat and Peteraf, 2009).

Dynamic capabilities studies that followed did not help matters as a series of empirical studies produced mixed results. Traditionally, the literature has assumed a universally positive effect of dynamic capabilities on competitive advantage (Schilke, 2014). A direct, significant and positive link between dynamic capabilities and competitive advantage was established in numerous studies (Li and Liu, 2014; Kaur and Mehta, 2017; Fainshmidt et al., 2016). Closely related to this reasoning, there is also another school of thought which recognises a conditional positive relationship between dynamic capabilities and competitive advantage. The strength of this relationship is contingent upon managers' ability to build renewable capabilities such as superior product design or business partnering (Cavusgil et al., 2007).

Conversely, there are other studies which established that dynamic capabilities and competitive advantage were not related (Ogunkoya et al., 2014) while some scholars found that the effect of dynamic capabilities on performance is moderated by environmental dynamism. Resultantly, Schilke (2014) found an inverse U-shaped relationship between dynamic capabilities and competitive advantage, implying that the relationship is strongest when environmental dynamism is moderate but relatively weak under conditions of high or low dynamism. These studies highlight the complex nature of the relationship between dynamic capabilities and competitive advantage and also that there is a scholarly debate on the relationship of the two variables itself. Though lot of researchers have discussed the significant positive relationship between dynamic capabilities and competitive advantage, but the relation as a whole is an area that needs further study to understand its implication and the relationships between them holistically (Banerjee et al., 2018). That said, the study hypothesises that;

- H0 There is no significant relationship between dynamic capabilities and competitive advantage.
- H1 There is a significant relationship between dynamic capabilities and competitive advantage.

### **3 Materials and methods**

The study adopted a positivist research paradigm. Researchers who work from this perspective explain in quantitative terms how variables interact, shape events, and cause outcomes (Tuli, 2010). Accordingly, the study used a quantitative research approach. Over and above the fact that the study sought to determine a cause-effect relationship between dynamic capabilities and competitive advantage, there is a plethora of studies which have investigated the relationship between the variables using quantitative methods (Sachitra and Chong, 2017; Chukwuemeka and Onuoha, 2018; Ogunkoya et al., 2014; Kaur and Mehta, 2017). Taken together, these factors justified the use of a positivist paradigm and a quantitative research approach in a study whose aim was to confirm or refute theory. The study used a cross-sectional research design to collect data from managing directors and other senior executives at customs clearing and freight forwarding companies. The study considered this category of respondents as they have intimate knowledge of the operations of their respective companies. Of the 150 questionnaires (one per company) that were distributed, 70 were properly completed and returned. This translates to a response rate of 46%. Structured questionnaires were distributed electronically to all respondents whose mailing address were obtained from the Shipping and Freight Forwarders Association of Zimbabwe (SFAAZ), a body representing the interests of Clearing agents in Zimbabwe. Mailing details for respondents not affiliated to SFAAZ were obtained through the chain referral system. Based on the obtained mailing list, the study targeted all firms as similar studies recorded very low response rates of 12.7% (Ismail et al., 2012).

The research used a five-point Likert scale instrument which ranged from strongly disagree (1point) to strongly agree (five points). As regards dynamic capabilities, previous researchers (e.g., Danneels, 2016) have already conceded that there no universally accepted approach to measure its key constructs. Partly, this is due to the fact that the dynamic capabilities view arrived on the strategic management scene in or around 1997. Hence, the area is relatively new to have an established, standard and accepted way of measuring its key constructs. To ensure content validity of the selected items, a thorough literature search was conducted. Eventually, the dynamic capabilities construct was operationalised using sensing, seizing and reconfiguration capabilities. This classification is consistent with Teece et al. (1997) and Teece (2007). Therefore, their arguments in conjunction with a previously validated scale by Kump et al. (2018) informed the measurement scale developed for this study. The first subconstruct (sensing) was measured using five items while the other two were measured using four items each. Similarly, in designing competitive advantage scale the study considered theoretical contributions from Peteraf and Barney (2003) and Barney (1991). Further, the study used measurement scales, with relevant adaptations, from previously validated study studies on competitive advantage by Sigalas et al. (2013). The construct was measured with seven items. The term ‘validated’ signifies that the psychometric properties (i.e., reliability and validity) of the scale have been tested and meet certain standards (Simpson and Lord, 2015). Therefore, this study adopted instruments whose validity and reliability were already known.



## 4 Results

The gathered data were coded into SPSS version 20 where it was firstly transformed. This was done because all the four constructs namely sensing capabilities, seizing capabilities, reconfiguration capabilities and competitive advantage were measured by multiple items. Resultantly, the mean score of the multi-items in respect of each construct was computed and used in subsequent analysis. Thereafter, preliminary tests were done to check for outliers, reliability and the suitability for using parametric tests. In this study, internal consistency reliability was used as the research instrument was administered only once. In this regard, Cronbach's alpha was then used to estimate reliability of the instrument and its values range from 0 to 1. An acceptable alpha value is one that is 0.7 or higher (Lobiondo-Wood and Haber, 2013). However, there are some authors (Bryman and Bell, 2007; Jenyo and Soyoye, 2015) who posit that a threshold greater than 0.6 suffices. From the results in Table 1, all the Cronbach's alpha reliability coefficients were about or above 0.70. This is an indication of high reliability.

**Table 1** Reliability analysis

<i>Construct</i>	<i>Cronbach's alpha</i>	<i>N of items</i>
Sensing capabilities	0.755	5
Seizing capabilities	0.810	4
Reconfiguration capabilities	0.667	4
Competitive advantage	0.748	7

To support the use of parametric tests, the study firstly tested for multicollinearity and normality of data. Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated (Adeboye et al., 2014). Diagnostics were conducted to verify if there was any excessively high level of multicollinearity. From the results in Table 4, variance inflation factors (VIF) ranged between 1.344 and 1.885 while tolerance values ranged between 0.530 and 0.744. These ranges were well within accepted thresholds as O'Brien (2007) argued that tolerance values which are less than 0.20 or 0.10 and/or a VIF between 5 and 10 or above suggest multicollinearity problems. Therefore, the requisite assumption was satisfied. Further, normality tests were done using Shapiro-Wilk tests ( $P > 0.05$ ). The reason for preferring Shapiro-Wilk test over Kolmogorov-Smirnov test was that the former is the most powerful normality test, followed by Anderson-Darling test, Lilliefors and Kolmogorov-Smirnov test (Nornadiah and Yap, 2011) and has good power properties over a wide range of asymmetric distributions (Yap and Sim, 2011). This was complemented by the visual inspection of graphic presentations in the form of histogram, box plots and normal Q-Q plots,

### 4.1 Hypotheses testing

A multi-variate regression analysis was conducted to establish the relationship between dynamic capabilities and competitive advantage of freight forwarding and customs clearing companies in Zimbabwe. Sensing, seizing and reconfiguration capabilities were used as independent variables while competitive advantage was used as the dependent variable. The resultant model yielded the results depicted in Table 2. From the model, the

adjusted R-square is 0.352. This means that dynamic capabilities jointly account for 35.2% of variations in competitive advantage.

**Table 2** Regression model summary

<i>Model</i>	<i>R</i>	<i>R-square</i>	<i>Adjusted R-square</i>	<i>Std. error of the estimate</i>
1	0.617 <sup>a</sup>	0.380	0.352	0.441

Notes: <sup>a</sup>Predictors: (constant), reconfiguration capabilities, sensing capabilities, seizing capabilities.

Dependent variable: competitive advantage.

Additionally, the study used ANOVA results to confirm that the regression model achieves a high degree of fit, with an overall statistical significance,  $F(3.66) = 13.491$ ;  $p < 0.001$ . Overall, the ANOVA results inveterate that sensing capabilities, seizing capabilities and reconfiguration capabilities predict competitive advantage of customs and freight forwarding companies.

The null hypothesis H0 predicted that there was no significant relationship between dynamic capabilities and competitive advantage but based on results from the regression model summary and ANOVA table ( $R = 0.617$ ,  $R^2 = 0.380$ , adjusted  $R^2 = 0.352$ ,  $F(3.66) = 13.491$ ;  $p < 0.001$ ), the null hypothesis is rejected and the study concludes that there is a significant and positive relationship between dynamic capabilities and competitive advantage.

**Table 3** ANOVA<sup>a</sup>

<i>Model</i>		<i>Sum of squares</i>	<i>Df</i>	<i>Mean square</i>	<i>F</i>	<i>Sig.</i>
1	Regression	7.876	3	2.625	13.491	0.000 <sup>b</sup>
	Residual	12.844	66	0.195		
	Total	20.720	69			

Notes: <sup>a</sup>Dependent variable: competitive advantage.

<sup>b</sup>Predictors: (Constant), reconfiguration capabilities, sensing capabilities, seizing capabilities.

**Table 4** Coefficients<sup>a</sup>

<i>Model</i>		<i>Unstandardised coefficients</i>		<i>Standardised coefficients</i>	<i>T</i>	<i>Sig.</i>	<i>Collinearity statistics</i>	
		<i>B</i>	<i>Std. error</i>	<i>Beta</i>			<i>Tolerance</i>	<i>VIF</i>
1	(Constant)	0.722	0.517		1.398	0.167		
	sensing capabilities	0.154	0.148	0.135	1.040	0.302	0.556	1.798
	Seizing capabilities	0.294	0.114	0.342	2.570	0.012	0.530	1.885
	Reconfiguration capabilities	0.282	0.121	0.262	2.328	0.023	0.744	1.344

Note: <sup>a</sup>Dependent variable: competitive advantage.

The study used the coefficients table (Table 4) to determine which type of dynamic capabilities contributed most to the prediction of the outcome. The results show that with

the exception of sensing capabilities ( $\beta = 0.135$ ,  $t(70) = 1.040$ ,  $p > 0.05$ ), seizing capabilities and reconfiguration capabilities were significantly contributing to competitive advantage. Seizing capabilities ( $\beta = 0.342$ ,  $t(70) = 2.570$ ,  $p < 0.05$ ) had the most significant unique contribution followed by reconfiguration capabilities ( $\beta = 0.262$ ,  $t(70) = 2.328$ ,  $p < 0.05$ ).

## 5 Discussion and conclusions

The study sought to investigate the impact of dynamic capabilities on competitive advantage of firms in the customs clearing and freight forwarding industry in Zimbabwe. In the main, the contribution of the study to the literature on dynamic capabilities is two-fold: first, the positive impact of dynamic capabilities and competitive advantage in less developed countries like Zimbabwe was empirically proven. Contrary to the view held by Kiggundu et al. (1983) that the universal applicability of Western generated theories in contexts with different environmental conditions is in doubt, this study affirms that dynamic capabilities are the 'holy grail' of competitive advantage. This study corroborates the assertion by Fainshmidt et al. (2016) that the value of dynamic capabilities is more pronounced in developing countries. Therefore, this significant empirical milestone will benefit all organisations whose ecosystem resembles similar characteristics to those of Zimbabwe. Second, the study offers an empirical grounding to the dynamic capabilities view.

The study results indicate that overall, dynamic capabilities account for 35.2% (adjusted  $R^2 = 0.352$ ) of variations in competitive advantage. This implies that dynamic capabilities significantly influence competitive advantage of firms in the customs clearing and freight forwarding industry. This supports earlier findings from several studies (Li and Liu, 2014; Kaur and Mehta, 2017; Fainshmidt et al., 2016). With respect to the unique contribution of sensing capabilities, seizing capabilities and reconfiguration capabilities, the study made some interesting findings. The most significant unique contribution to competitive advantage was obtained from seizing capabilities. This appears to be a merited finding because timely investment decisions and designing of sound business models are made at this stage. In the absence of all these, an organisation cannot gain and sustain competitive advantage. Good sensing and reconfiguration capabilities heavily depend on seizing capabilities. In other words, seizing capabilities play a 'fetch and carry' role similar to the one played by box-to-box midfielders in soccer. Seizing activities interpret the sensed information for the organisation and for further use when reconfiguring the asset base (Maijanen and Jantunen, 2016).

Reconfiguration capabilities provided the second highest significant unique contribution to competitive advantage. Again, this finding is plausible. Subsequent to investment, dynamic capabilities for recombination and reconfiguration can alter the accumulated asset base of the organisation further, leading to an incremental effect on firm performance and competitive advantage, and to new positions and paths (Helfat and Peteraf, 2009) (emphasis added). The 'add on' effect of reconfiguration capabilities does not clearly indicate whether or not the magnitude should be always below that of seizing capabilities. This is an area still open for further research.

Finally, the study found a positive but insignificant contribution of sensing capabilities. This implies that sensing capabilities are not directly related to competitive advantage. However, this does not mean that sensing capabilities can be wished away. By

their nature, sensing capabilities involve the organisation's interaction with its external environment and making sense out of it. Dynamic capabilities of opportunity identification ('sensing') and investment in these opportunities ('seizing') lead to new positions and paths, which then affects firm performance in terms of growth, profits and competitive advantage (Helfat and Peteraf, 2009) (emphasis added). Evidently, competitive advantage will only result when sensing capabilities are amalgamated with seizing capabilities. This means that, on their own, sensing capabilities do not result in any competitive advantage. It is not enough to monitor the external environment (Teece, 2007). In agreement, Maijanen and Jantunen (2016) found an indirect relationship between sensing capabilities and competitive advantage. In conclusion one would say that although the ability of companies to identify opportunities will not directly result in competitive advantage, it will provide the base upon which predictors of competitive advantage (seizing and reconfiguration capabilities) derive their strength.

## **6 Theoretical and managerial implications**

The contributions of the article to the literature on dynamic capabilities view are manifold. The debate about dynamic capabilities has reached a point where theoretical arguments should be further complemented by relevant empirical work (Protogerou et al., 2012). Therefore, this article advanced the dynamic capabilities literature by embarking on relevant empirical work in line with the above call. In the process, the article reduced the relative scarcity of empirical studies on the impact of dynamic capabilities on competitive advantage especially in the Zimbabwean context. Previously, the relationship between dynamic capabilities and competitive advantage has been mired in controversy. There have been and still are conflicting views on the nature of such relationship. Adopting a gap spotting stance, the article focused on the Zimbabwean context which had previously escaped the attention of scholars.

Against that backdrop, the article provides a nuanced understanding of the relationship between dynamic capabilities and competitive advantage as it has unequivocally and empirically established that the relationship is both positive and significant. This refutes previous allegations by Arend and Bromiley (2009) that the concept is not only tautological but enjoys weak empirical support. In the same vein, the article debunks further empirical concerns raised by the said authors from previous dynamic capabilities studies that 32% of the studies had fewer than ten observations. The sample size of this study and its resultant response rate were enough to allay the empirical fears raised by Arend and Bromiley (2009). Based on their yet another empirical accusation that only 5% of studies reported negative findings joins a bandwagon of 95% of other studies with the same intellectual foci, a scenario which Arend and Bromiley (2009) refer to as positive findings bias. In my view, this is not a bias per se but these are tell-tale signs of the usefulness of dynamic capabilities as predictors of competitive advantage. The study avoided treating dynamic capabilities as a single and holistic construct. Rather, it used three generic proxies of dynamic capabilities namely sensing, seizing and reconfiguration. It turned out that each proxy contributed to competitive advantage in its own unique way. Hence, this finding also helps to cure the tautology question.

As regards managerial implications, the study findings do not only assist managers on how to build but leverage dynamic capabilities with a view of attaining and enduring

competitive advantage. From the results, it is evident that of the three proxies for dynamic capabilities, sensing capabilities do not provide a significant contribution to competitive advantage. Therefore, managers should place reliance on the other two proxies namely seizing and reconfiguration. The study had its own limitations. Data were gathered from respondents in one industry. Therefore, there is need to extend the research to other industries as well. That the study results can be generalised to other developing countries cannot be vouched for. Accordingly, it is recommended that similar studies be conducted in other under developed countries. The peculiarities of each industry or country would require the incorporation of mediating or moderating variables such as environmental dynamism. These factors are conspicuous by their absence from this study. Future studies should consider the interaction effect of these variables on dynamic capabilities. The study operationalised used the generic classification of dynamic capabilities. In future, studies should consider using specific types of dynamic capabilities.

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## Questionnaire

*Dynamic capabilities and competitive advantage: customs clearing and freight forwarding industry in Zimbabwe*

### *Dynamic capabilities and competitive advantage*

To what extent do you agree or disagree with the following statements regarding the level of adoption and practice of dynamic capabilities and competitive advantage in your company. Use the key below to tick as appropriate;

1 = Strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

		1	2	3	4	5
<i>Sensing capabilities</i>						
SEC1	Our company knows the best practices in the market					
SEC2	Our company is up-to-date on the current market information					
SEC3	Our company systematically searches for information on the current market situation					
SEC4	As a company, we know how to access new information					
SEC4	Our company quickly notices changes in the market					
<i>Seizing capabilities</i>						
SC1	Our company can quickly relate to new knowledge from the outside					
SC2	We recognise what new information can be utilised in our company					
SC3	Our company is capable of turning new technological knowledge into process and product/service innovation					
SC4	Current information leads to the development of new products and/or services					
<i>Reconfiguration capabilities</i>						
RC1	By defining clear responsibilities, we successfully implement plans for changes in our company					
RC2	Decisions on planned changes are pursued consistently in our company					
RC3	In the past, we have demonstrated our strengths in implementing changes					
RC4	In our company, change projects can be put into practice alongside the daily business					
<i>Competitive advantage</i>						
CA1	Our company is always the first to introduce new products/services in the market					
CA2	Our company exploits all market opportunities					
CA3	Our company fully exploits market opportunities					
CA4	Our company neutralises all competitive threats					
CA5	Our company fully neutralises all competitive threats					
CA6	Our company offers highly reliable products and services to its customers					
CA7	Our company provides customised products to its customers.					