Valuable, rare, inimitable, non-substitutable and exploitable (VRINE) resources on competitive advantage

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ABSTRACT

Background: Much research on Resource-based theory (RBT) empirical indicators has focused on various industries in developed, emerging and developing economies. However, little research has been conducted on Zimbabwean banks.

Purpose of study: The study’s aim was to investigate the relationship between VRINE resources and competitive advantage. It focused on how banks use resources to realize competitive advantage.

Design/Methodology/Approach: Using a quantitative survey method a sample size of 204 CEOs, Directors, Managers and Supervisors participated. The survey’s data were analyzed through regression.

Results/Findings: The study found that each dimension of VRINE resources contributes independently to explaining the bank’s competitive advantage. Hence value, rarity, inimitability, non-substitutability and exploitability were found to be the best predictors of competitive advantage.

Recommendations: Zimbabwean banks need to consciously adopt the VRINE resources that will minimize threats and allow them enjoy the opportunity of competitive advantage.

Managerial implication: The adoption of VRINE resources implies that banks are enabled to survive, thrive and maintain competitive advantage. In addition, if senior managers give employees greater autonomy to exploit resources at their disposal, will go a long way in sustaining competitive advantage.

Key words: competitive advantage, VRINE resources, resource-based theory
Introduction

Banks worldwide jostle for competitive positions to serve customers. Even after an economic turmoil (such as the 2007-2009 financial crisis) banks strategized to remain competitive. The developed economies (United States, Japan and Germany) thrived through financial linkages and synchronization for country pairs that are more financially connected as a means to survive (Kalemli-Ozcan, Papaioannou & Perri 2012). In Africa, the battle to survive in the financial sector remains, with other banks deepening regional integration for survival. According to the Kenyan Bankers Association (2014), as of December 2012, 11 Kenyan banks had a regional presence in five neighboring countries, while Rwanda’s Bank of Kigali established its operations in Kenya in 2013. These banks flock to economies where inflation is relatively low and macro-economic fundamentals seem stable to gain competitive advantage (Njoroge & Ouma 2014). Zimbabwean banks are not an exception, they too fight to survive and to enjoy competitive advantage.

The Zimbabwean banking sector has gone through six distinct phases since the attainment of independence in 1980 (Maune, 2014). Banks functioned under semi-command economy from 1980 to 1990, with no meaningful competition. The period 1991 to 2000 signifies the second phase where a number of institutions, commercial banks and discount houses entered the sector (Maune, 2014). The period 2000 to 2004 represented another phase driven by the political factor particularly the land reform program of 2000 (Maune, 2014). This is the era which resulted in the imposition of the sanctions and it was the beginning of the economic meltdown. From 2004 to 2008, the period experienced hyperinflation, serious cash shortages, massive printing of cash, severe foreign currency shortages and no much activity in the financial sector (Gono 2009). The 2009 to 2013 is the fifth period and it witnessed two major events, which is the formation of the inclusive government (the Government of National Unity 2009-2013) and the introduction of the multi-currency regime (Pasara & Gadzirai 2020). There was a drop-in annual inflation rate to a single digit, political stability and stable economic environment (Matanda, Hlupeko & Madzokere 2018). The sixth phase runs from 2014 to current and it marks the post-dollarization era which saw a number of banks closing due to the failure to meet the minimum capital requirement of $100 million for commercial banks as set by the finance minister in 2012. This period saw the introduction of a surrogate currency (the bond note) of 2016 and the RTGS dollar of 2019. Both currencies were pegged at par with the USD and no separate accounts were opened to masses which led to the majority of Zimbabweans losing their USD savings because the currency lost its value badly as the Gresham law clearly states that bad money drives out good. The banking sector credibility was further lost during this phase.

Zimbabwean economy has remained fragile, characterized by hyperinflation, high liquidity constraints, unsustainably high external liabilities, massive deindustrialization and informalization. Zimbabweans developed a culture of carrying hard cash and using it for almost all transactions, large and small due to lack of confidence in the banking sector as a result of high bank charges, low interest rates and historically unfavorable banking systems due to lack of consistency in policy making. Despite the above challenges affecting the banks’ credibility, banks also fight fierce competition not only among themselves but from other external firms providing financial services. For example, from the telecommunication industry, there is Ecocash and One Wallet which again is a serious threat to banks (Chagwiza 2014). Shops such as Edgars, Topics and N Richards are also involved in the distribution of financial services by offering credit cards which in turn mounts competitive pressure on banks. There is also Mukuru and Inn bucks.

Regardless of all the circumstances highlighted above, some banks are more successful than others because of the resource factor. This research paper sought to analyze the factors that are causing banks to occupy different positions on the success ladder. For a bank to gain and maintain a competitive advantage, the RBT suggests tangible and intangible resources. For
the purposes of this study, VRINE resources were operationalized to advance knowledge and understanding of competitive advantage among banks.

**Literature Review**

Competitive advantage is the ability of firms to create positions above competitors (Protano et al, 2019). These are unique competencies that differentiate the organizations from competitors, which gives them an upper position in the market (Syahchari & Sahban, 2019). Competitive advantage can be temporary competitive advantage, sustained competitive advantage or absolute competitive advantage (Carpenter & Sanders, 2009:79). Resources are the inputs that a firm uses to generate products and services and implementing its strategies (Carpenter & Sanders, 2009:76; Helfat & Peteraf, 2003; Wernerfelt, 2013:635). Barney (1991:101) defines resources as assets, capabilities, organizational processes, firm attributes, information, controlled by a person that enable the organization to conceive of and implement strategies. Capabilities are the activities that constitute a firm's value chain and govern how efficiently and effectively the inputs in a firm will be transformed into outputs Ehlers and Lazenby (2011:116). Capabilities are a special type of firm resources Makadok (2001:389) which helps a firm to perform a coordinated set of duties (Chmielewski & Paladino, 2007:446; Helfat & Peteraf, 2003), utilizing the firm’s resources, for the purpose of achieving a particular result. Capabilities can be dynamic (Teece, Pisano & Shuen, 1997:509; Teece, 2007:1319), distinctive or core competences (Carpenter & Sanders, 2009:77).

**Theoretical Underpinnings**

This study considered various conceptual models from previous research (for example, Lin & Wu, 2014:410; Newbert, 2008:747; Talaja, 2012:55). The models combine the RBT, dynamic capabilities, competitive advantage and performance. The constructs from these researches are combined to form a research model for this study. Lin & Wu (2014)’s study VRIN and Non-VRIN resources with dynamic capabilities as the mediating factor. However, they did not unpack each VRIN characteristic. Markman et al (2004) captured inimitability and non-substitutability to superior performance. Newbert (2008) captured value, rareness and performance with competitive advantage as the mediating factor. Talaja (2012) shows that a firm’s competitive advantage is determined by the value or rareness of its resources and capabilities. Thus, the researcher adapted the above constructs to come up with a model which has value, rareness, inimitable, non-substitutable and exploitable as independent variables and competitive advantage as the dependent variable.

**Conceptual Model**

The conceptual framework below highlights the hypotheses on how the resource attributes potentially influence competitive advantage. The study is rooted in RBT to add to the empirical literature available on the relationship between resources and competitive advantage.
Resource-Based View (RBV) or Resource-based Theory (RBT)

The Resource-Based View of the firm is very relevant in the field of strategic management (Newbert 2008). The RBV of the firm has been developed by a number of scholars (Barney, 1986:1231, 1991:99; Wernerfelt 1984). Barney is generally acknowledged for his work to first formalize the resource-based literature into a comprehensive theoretical framework in his 1991 paper. The RBV has been widely used to assess internal weaknesses and strengths. The RBV of the firm analyses the firm’s performance from the resource perspective rather than the product side (Wernerfelt 1984). Hence, it is assumed that resources and capabilities that are valuable, rare, inimitable, non-substitutable, and exploitable contribute to competitive advantage. These five components; value, rarity, inimitability, non-substitutability and exploitability make an acronym – VRINE. The VRINE characteristics are individually necessary and collectively sufficient for the firm’s sustained competitive advantage (Arend & Lévesque, 2010). The VRINE analysis suggests how a firm can use its resources and capabilities to differentiate its offerings from competitors (Carpenter & Sanders 2009). According to Chisholm and Nielsen (2009), RBV of the firm is a pool of resources, as well as vital intangible resources that can generate competitive advantage and superior profits to a firm.

One of the strengths of the RBV theory is that it incorporates the insights of the early influential contributions to strategic management in order to explain how firms generate rents (Newbert 2008). Management picks up strategy based upon their resources and capabilities. Barney (1991) states that resources are valuable if they allow a company to create and implement strategies that improve its efficiency and effectiveness. The notion is supported by Bowman and Ambrosini (2003:291) who agree that a resource is valuable if it generates rents that can be captured by the firm. Thus, a valuable resource on its own will not result in a competitive advantage but it will allow a firm to compete among other players, in combination. A rare resource is a relatively scarce resource (Arend & Lévesque 2010:914; Barney 2007), the firm possesses. Such a resource generates superior margins or superior sales volumes at a cost equivalent to that of competitors (Bowman & Ambrosini 2003:291). In other words, a firm that owns a rare resource enjoys the first mover advantages, collects economic rents and enjoys profits for a short period before competitors imitate that resource.

A resource is said to be inimitable when it possesses additional attributes to protect it from the general rarity of a resource (Arend & Lévesque 2010:915). Barney (1995:53) points out that imitation can be in two ways that is duplication or substitution. Duplication is when an imitating firm builds similar kind of resources as the source firm while substitution is when competing firms offer a different resource that produces same results of the focal firm (Barney, 1995:53). A resource can be both valuable and rare but it is quite important to consider how difficult it is for competitors to imitate it.
Bowman and Ambrosini (2003:292) define non-substitutability as a resource that cannot be simply replaced by any other resource that provides the same benefits. When competing firms fail in producing a substitute then the competitive advantage is sustained by a firm possessing the resource or capability (Barney, 1991). A resource or capability can satisfy the VRIN criteria but the firm still needs to consider exploitability. If the firm cannot use its position to effectively use the resource or capability (Makadok, 2001:387) then it does not convey competitive advantage, in fact, it may increase opportunity costs. Arend and Lévesque (2010:915) argue that the exploitability characteristic can also be called organizational appropriability - the resource must produce value which can be realized by the firm itself rather than other firms from outside.

**Hypotheses Development**

**Valuable resources and competitive advantage**

A valuable resource has the ability to neutralize threats and enable a company to exploit opportunities that arise in a business environment (Talaja, 2012). Valuable resources can enable a firm to lower costs than rival firms, and could allow firms to differentiate its products or services (Bowman & Ambrosini, 2003:291). Talaja (2012) argues that the value of a resource or capability has to be measured in the context of the overall corporate strategy and the specific environment it operates. If a resource can facilitate a firm in identifying opportunities and eliminate threats in the implementation of strategies then it is a valuable resource (Newbert, 2008). This implies that if a bank could design and implement strategies that improve effectiveness and efficiency, then in some way the bank possesses valuable resources.

Newbert (2008) and Talaja (2012) agree that valuable resources contribute to positive competitive advantage. Therefore, the following hypothesis was developed:

\[ H_1: \text{There is a positive relationship between valuable resources and competitive advantage in the banking industry.} \]

**Rare resources and competitive advantage**

Barney (2007) posits that resources that are possessed by few competitors or possessed by only one firm are rare. A rare resource or capability gives the firm the privilege to enjoy benefits which puts the focal firm on a position of advantage over competitors, hence the basis of competitive advantage (Arend & Lévesque, 2010). Bowman and Ambrosini (2003:291) state that a rare resource is a relatively scarce resource. An organization possessing such a resource makes superior margins or superior sales volumes at a low cost. In other words, a firm that owns a rare resource enjoys the first mover advantages, collects economic rents and enjoys profits for a shorter period. Therefore, the firm is likely to enjoy competitive advantage.

Newbert (2008:756) suggests that the rarer a firm's resource and capability combinations, the greater the competitive advantages it will attain from their exploitation. Rare resources are a source of competitive advantage. Talaja (2012:61) argues that value and rareness of firm’s resources and capabilities are positively related. A valuable resource needs to be rare to generate competitive advantage. The results from Talaja’s study show that valuable and rare resources significantly affect a firm's competitive advantage as well as performance.

Arend and Levesque (2010) ran a regression analysis and results showed that rarity as a resource attribute is of great importance on competitive advantage. Arend & Levesque (2010:914) concluded that, if any of the characteristics are
violated, there is no prediction of a sustained competitive advantage. All the resource and capability attributes are equally important and relevant for sustained competitive advantage. Hence, it was hypothesized that:

H₂: There is a positive relationship between rare resources and competitive advantage.

Inimitable resources and competitive advantage

According to Arend & Lévesque (2010:915), a resource or capability is said to be inimitable if it possesses some additional attributes to protect it from the general rarity of a resource. Inimitability comes from the existence of isolating mechanisms which include causal ambiguity, social complexity or information asymmetries. These mechanisms protect the firm’s resources from imitation and preserve the stream of rents accruing to them (Bowman & Ambrosini 2003:292; Markman, et al., 2004:535). Resources and capabilities that are valuable, rare and difficult to imitate can lead to sustained competitive advantage. If competitors fail to come up with the exact resource or capability or other resources and capabilities that give the same benefits then the resource or capability is inimitable and is a source of competitive advantage (Carpenter and Sanders 2009). The implication therefore is, inimitable resources lead to competitive advantage.

Markman, et al (2004:540) points out that inimitability can be in form of patent citations and in their study, it was significantly related to competitive advantage. Their findings confirm that over and above scale, size, and investment, an innovating firm should also seek dominance over key technologies and supremacy proffered by patents to sustain competitive advantage. Resources are imperfectly imitable if competitors cannot obtain them on a particular market (Talaji, 2012). The firm possessing the resources enjoys the advantages of producing ahead of competitors and the advantage stays until competitors come up with the same resource or capability or alternatives which yields the same results and benefits. Thus, the argument above led to the development of this hypothesis:

H₃: There is a positive relationship between inimitable resources and competitive advantage.

Non-substitutable resources and competitive advantage

If there is no other resource that could be used as an adequate and worthy replacement for the existing resource, then the existing resources are not substitutable (Arend & Lévesque, 2010). If competing firms are failing in producing a substitute then the competitive advantage is sustained by a firm possessing the resource or capability. Markman, et al (2004:540) provide managerial insights concerning the use of patents and how high-quality inventions might be measured. They note that new products, new discoveries demonstrate important and highly focused inventions in the pharmaceutical industry which should be protected by patents in order to gain competitive advantage. The non-substitutability part (patent claims) was significantly related to new products.

Moreover, Bowman and Ambrosini (2003:292) state that non-substitutable resources are resources that cannot be replaced by any other resource that provides the same benefits. These resources are rare and imperfectly imitable as well. When competing firms fail in producing a substitute then competitive advantage is sustained by a firm possessing the resource or capability (Barney, 1991). Competing firms would take much time in trying to come up with substitute resources while the focal firm is enjoying super normal profits. It is interesting to note that findings in previous studies indicate non-substitutability (patent claims) as significantly related to new products and not to profitability. Therefore, the following hypothesis was developed:

H₄: There is a positive relationship between non-substitutable resources and competitive advantage.
Exploitable resources and competitive advantage

Arend & Lévesque (2010:915) posit that exploitability of a resource or capability can also be called organizational appropriability, that is the resource or capability must produce value which could be realized by the firm itself rather than competitors. A firm should be in a position to use its resources and capabilities productively at a cost advantage. Priem and Butler (2001) note that a resource that is valuable, rare, inimitable, and non-substitutable is also difficult to measure, manipulate, or deploy, and therefore difficult to exploit as well. Their synthesis presented a compelling analysis that some attributes of competitive advantage are not amenable to empirical testing. Management can fail to assess the firm’s resources and this can lead to formulation of falsifiable propositions (Markman, et al 2004). Their analytical assessment incited an important debate regarding RBV’s theoretical and practical utility.

If the firm cannot use its position to effectively use the resource or capability to create value then it does not convey competitive advantage, in fact, it may increase opportunity costs (Newbert 2008). Newbert (2008) argues that even if a firm owns resources that have the potential to create competitive advantage, that potential will not be realized if the firm does not own capabilities for resource exploitation. This could be argued that banks that own valuable, rare, inimitable and non-substitutable resources generate and sustain competitive advantage, only if exploitation is properly done. Consequently, the following hypothesis was developed:

H5: There is a positive relationship between exploitable resources and competitive advantage.

Research Methodology

The hypotheses were tested on a sample of 16 CEOs and Directors, 36 Managers, 81 Supervisors and 71 senior employees. Data were drawn from commercial banks in Zimbabwe. Some of the information for commercial banks was obtained from the Bankers Association of Zimbabwe and some from the Reserve Bank of Zimbabwe website. The study adopted a quantitative data collection method through the use of a questionnaire. Questions were based on the five resource attributes: value, rarity, inimitability, non-substitutability and exploitability (Barney 1991; Bowman & Ambrosini 2003; Newbert 2008; Nieves, et al., 2016; Talaji, 2012).

The questionnaire was pretested on a small sample of respondents. It was distributed to 25 employees and managers to test its reliability as supported by Cooper and Schindler (2014:85) who note that a pilot group should range from 25 to 100 respondents. Thereafter, the questionnaire was distributed to banks.

Constructs and Measurement items

Based on previous studies, this study adopted constructs and measures from literature to help in designing the questionnaire. The table below shows the source of each variable from which the items were adopted.
### Data Analysis and Results

#### Reliability and Validity

The validity of a measurement model is determined by the goodness-of-fit results, reliability, and evidence of construct validity, especially convergent and discriminant validity (Malhotra, 2010:700).

#### Root Mean Square Error of Approximation

<table>
<thead>
<tr>
<th>Model</th>
<th>RMSEA</th>
<th>LO 90</th>
<th>HI 90</th>
<th>PCLOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>.070</td>
<td>.047</td>
<td>.078</td>
<td>.076</td>
</tr>
<tr>
<td>Independence model</td>
<td>.243</td>
<td>.211</td>
<td>.227</td>
<td>.000</td>
</tr>
</tbody>
</table>

Root Mean Square Error of Approximation (RMSEA) for overall model fit is given. Lower RMSEA values indicate better model fit. A RMSEA value of 0.08 is considered conservative. With RMSEA = 0.070 in the table above, the model has acceptable fit. The manifest variables that are the indicators of a specific construct should have a high proportion of variance in common, known as convergent validity.

#### Cronbach’s Alpha

To assess the reliability and validity of the data, Cronbach alphas were computed for each scale used in the study. Alphas for all scales are above 0.700, suggesting that the scales are internally consistent (Cronbach 1971).

#### Summary of Cronbach’s Alphas

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>0.94</td>
</tr>
<tr>
<td>Rareness</td>
<td>0.96</td>
</tr>
<tr>
<td>Inimitable</td>
<td>0.93</td>
</tr>
<tr>
<td>Non-Substitutable</td>
<td>0.95</td>
</tr>
<tr>
<td>Exploitable</td>
<td>0.92</td>
</tr>
<tr>
<td>Competitive Advantage</td>
<td>0.93</td>
</tr>
</tbody>
</table>
Regression analysis was conducted to test the relationship between valuable resources and competitive advantage. The results gave an ANOVA statistically significant value of .001 which marks a statistically significant value. This means that if a bank owns resources that are valuable, in turn creates competitive advantage. On the other hand, the analysis depicts that there is a further positive relationship between rareness of resources and competitive advantage. The correlation coefficient between inimitability and competitive advantage is positive. \( r = .293 \) which represents a strong positive relationship between the two (2) variables. Standard \( p \) is 0.05 as the significant value and in this case our \( p \) value is .016 which is less than .05. On the non-substitutability, Pearson Chi-Square shows the results of the Chi-Square test: Chi-Square is 16.278, with 12 degrees of freedom, and this is significant at \( p = .179 \), thus the Wilks’ associated with the second function is 0.179, which is not significant at the 0.05 level. Therefore, it does not contribute significantly and the hypothesis is rejected.

The correlation coefficient between exploitability of resources and competitive advantage; \( r = .149 \) which represents a strong positive relationship between the two (2) variables, \( p = .033 \). Standard \( p \) is 0.05 as the significant value and in this case \( p \) value is .033 which is less than .05. This means that there is a positive relationship between exploitability and competitive advantage, and this hypothesis is accepted. The hypothesis implies that if the bank can appropriately exploit its resources, then competitive advantage increases. Hence the table below shows in summary.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>( H_1 ): There is a positive relationship between valuable resources and competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>( H_2 ): There is a positive relationship between rare resources and competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>( H_3 ): There is a positive relationship between inimitable resources and competitive advantage</td>
<td>Accepted</td>
</tr>
<tr>
<td>( H_4 ): There is a positive relationship between non-substitutable resources and competitive advantage</td>
<td>Rejected</td>
</tr>
<tr>
<td>( H_5 ): There is a positive relationship between exploitable resources and competitive advantage</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Conclusions and Recommendations

The relationship between valuable resources and competitive advantage was seen to be positive. This means that banks should own resources that are vital in exploiting market opportunities. Rare resources and profitability as an item of competitive advantage was also positive, meaning that the rarity of resources does influence profitability. Resources of banks should be rare in order to achieve competitive advantage.

Pearson’s correlation was used to compute the relationship that exists between inimitable resources and competitive advantage. The relationship turned out to be positive meaning that banks possessing resources that are difficult to replicate are most likely to increase competitive advantage leveraging on their difficult to match resources. Banks possessing those superior inimitable resources can introduce any innovation in the market before competitors can duplicate. This implies that, difficult to match resources improve a bank’s competitive advantage. A Chi-square test was carried out to measure the relationship that exists between non-substitutability of resources and competitive advantage. The relationship proved to be insignificant meaning that a bank may own non-substitutable resources but fail to attain competitive advantage. This could be because of failure to appropriately exploit the resources.

Results of the correlation analysis showed that the relationship between exploitability of resources and competitive advantage was positive. This means that a bank could easily exploit its resources and sustain its competitive advantage.
Resources that pass the VRINE test are involved in delivering and sustaining competitive advantage to the firm, by either providing product advantages perceived by customers or they confer process advantages that lead to lower unit costs. As such, they create rents and contribute to the firm’s super normal profit. Management of banks should also take note of the important aspect of the capability view (Eisenhardt & Martin, 2000; Teece, Pisano & Shuen, 1997) which addresses the process of future resource creation. The dynamic capabilities view emphasizes the capacity a firm facing a rapidly changing environment has to generate new resources, to renew or modify its resource mix. Each resource should have a relative advantage which then can be presented as a unique selling proposition.

REFERENCES


[22] GONO, G. 2008. MONETARY POLICY STATEMENT1, RESERVE BANK OF ZIMBABWE, HARARE.

[23] GONO, G. 2009. MONETARY POLICY STATEMENT, RESERVE BANK OF ZIMBABWE, HARARE


[31] MALHOTRA. N. K. 2010. MARKETING RESEARCH AN APPLIED ORIENTATION, 6TH EDITION, PRENTICE HALL, NEW JERSEY


11
[34] MATANDA E. DUBE H. & MADZOKERE N. 2018. “BLESSING OR CURSE”? INTRODUCTION OF BOND NOTES AS AN ANTIDOTE TO ZIMBABWE’S LIQUIDITY CRISES. MODERN ACCOUNTING AND AUDITING, 14, (5)252-264


[40] NJOROGE. L & OUMA. S. 2014. DETERMINANTS OF BANKS EXPANSION IN THE EAST AFRICAN COMMUNITY: AN EMPIRICAL ANALYSIS OF KENyan BANKS, KENyan BANKERS ASSOCIATION


[47] RBZ 2008. MONETARY POLICY STATEMENTS. RESERVE BANK OF ZIMBABWE.

[48] RBZ 2009. MONETARY POLICY STATEMENTS. RESERVE BANK OF ZIMBABWE.


[56] SYAHCHARI. D. H & SAHBAN. M. A. 2019. THE IMPACT OF INTELLECTUAL CAPITAL AND KNOWLEDGE MANAGEMENT ON COMPETITIVE ADVANTAGE, 10, (8)


[63] WAHYUNI. D. 2012. THE RESEARCH DESIGN MAZE: UNDERSTANDING PARADIGMS, CASES, METHODS AND METHODOLOGIES 10 (1)

