Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

MANAGEMENT IMITATION ORIENTATION: CONCEPT, DEFINITION AND DEVELOPMENT OF MEASUREMENT SCALE

TEHMINA LATIF
Ph.D. Scholar, Institute of Business Administration, University of the Punjab, Pakistan.

Dr. SANIA ZAHRA MALIK
Professor, Institute of Business Administration, University of the Punjab, Pakistan.

Abstract

This study is the first attempt to develop a reliable and psychometrically sound measure of management imitation orientation in the banking industry using a rigorous approach. For this purpose, the study is divided into three stages in accordance with the most common contemporary practices of the scale development process. First, the item-generation stage which identifies a pool of relevant items to be extracted for scale development. Second, the theoretical analysis stage to test the content validity followed by the third stage which comprises of a psychometric analysis of items for testing reliability and construct validity following American Psychological Association (1985) criteria of reliability and validity for assessment of behavioural studies. After a thorough analysis of the construct's reliability and validity, a 5-item Likert scale was developed based on a literature driven definition of the concept of management imitation orientation.

Keywords: Imitation Orientation, Scale Development, Reliability, Validity, Psychometric properties, Exploratory Factor Analysis, Confirmatory Factor Analysis

INTRODUCTION

The banking industry is flourishing rapidly owing to rising financial needs of the business sector. Due to the critical role played by the banking sector to an economy, organizations need to adapt changing market trends either through innovation or imitation to improve the value delivered to shareholders and customers to gain and maintain a competitive advantage as well as to avoid elimination from the banking sector. A vast majority of previous studies (Lee & Tang, 2018; Latif, Qadeer & Farooqui, 2021; Frank, Cortimiglia, Ribeiro & de Oliveira, 2016; Mahmoud, Blankson, Owusu-Frimpong, Nwankwo & Trang, 2016; Lieberman & Asaba, 2006; Richard, Barnett, Dwyer & Chadwick, 2004) highlights the important role played by management strategic orientations particularly imitation orientation in banking industry (Deephouse, 1999; Chang, Chaudhuri, & Jayaratne, 1997). Imitation is the conscious or unconscious act of copying others (Piana, 2004). This behaviour does not come at once rather it develops gradually after repeatedly and closely observing someone else's actions that appear desirable (Fridland & Moore, 2015) to the individual (who is imitating). It may exist in an individual employee or build up to the organization level.

Imitative behaviour is not an innate characteristic, but a collective strategic attitude shared by individuals at all levels of an organization (Richard et al., 2004). As firm level imitation has broad implications for decision making processes at all managerial levels (Ordanini, Rubera & DeFillippi, 2008) and influences organizational practices (Rivkin, 2000), it is very imperative to observe this behaviour. Organizations may imitate each other for one

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

or more of the reasons of introducing novel products, services, and processes, adopting managerial methods and institutional forms, entering a market and timing of investment (Lieberman & Asaba, 2006). All these activities of a business are collectively called organizational practices. Realizing the significance of imitation accentuated by Theodore Levitt, several studies provided theoretical foundation to imitation (Lee & Tang, 2018; Jenkins, 2014; Naranjo-Valencia et al., 2011; Semadeni & Anderson, 2010; Apesteguia, Huck & Oechssler, 2007; Lieberman & Asaba, 2006; Zhou, 2006; Haunschild & Miner, 1997). Although numerous studies provide theoretical foundations for imitation behaviour in banking sector, organizational behaviour literature lacks a comprehensive measure and definition of imitation orientation. The existing literature investigates the concept of imitation and imitation behaviour by examining patenting information obtained from companies. Lee and Tang (2018) studied imitation orientation using the construct and definition based on a review of two studies (Shenkar, 2010; Schnaars, 1994). Although the deductive approach thoroughly reviewed literature to generate the theoretical definition and items of the construct (Morgado et al., 2018; Hinkin, 1995), they did not consider criteria suggested by the extant literature for assessment of psychometric soundness of the measure. Hinkin (1995) asserts that to be effective and reliable, a measure should demonstrate content validity, construct validity, convergent validity, and discriminant validity. Filling this gap, this study is the first attempt to develop a reliable and psychometrically sound measure of management imitation orientation at the banking industry using a rigorous approach. For this purpose, the study is divided into three stages in accordance with the most common contemporary practices of the scale development process (Morgado, et al., 2018; Swanson & Holton, 2015). First, the item-generation stage which discusses the relevant literature to develop an operationalized definition of imitation orientation and identifies a pool of relevant items to be extracted for scale development. In the second stage, which is the theoretical analysis stage, a theoretical analysis has been conducted to test the content validity followed by the third stage which comprises of a psychometric analysis of items for testing reliability and construct validity following American Psychological Association (1985) criteria of reliability and validity for assessment of behavioural studies which states that an effective measure should demonstrate content validity, construct validity, internal consistency and criterion-related validity (Hinkin, 1995). The proposed scale coincides the dual challenge of achieving the beauty of parsimony in the numbers of items used while maintaining the multidimensionality of the imitation orientation construct (Steenkamp & Baumgartner, 1995).

Stage I - Items Generation

Item-generation phase of scale development seeks to provide theoretical support for initial item pool (Hutz, Bandeira & Trentini, 2015). Following the footsteps of vast majority of previous researchers this study uses deductive method for item generation since this approach is considered as the most extensively used method of item generation (Bolton & Lane, 2012). If properly executed, this method helps ensure content validity of the final scale (Swanson & Holton, 2015). About 84.7% of the studies conducted during 1976-2015 on scale development, used literature review for item generation believing that the

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

quality of the generated items depends on the conceptual basis of the construct (Morgado et al., 2018). The paper does not mention all the scholarly work on imitation rather it takes into consideration the essence of some important studies that are considered as key to provide a foundation for valid and reliable scale of management imitation orientation.

Key Theoretical Developments in Business Imitation Literature

a) Strategic Typology of Organizations based on the Propensity to Imitate

Miles, Snow, Meyer & Coleman (1978) proposed a strategic typology of organizations based on their position on the adaptive cycle and focused on the managerial disposition or propensity to imitate under conditions of entrepreneurial, technological, and administrative problems faced by top management of different organizations (Ordanini et al., 2008). They categorized the organizations into three types; i) the prospectors, who wish to establish themselves as innovative while compromising their profitability and responding to the environment that is more dynamic than those of other organizations in the same industry, ii) The defenders, who lie at the opposite end of prospectors along the same continuum, strive for stability in the environment and seek to maintain their competitive position through competitive pricing and quality and iii) the analysers. In between prospectors and defenders along the continuum, another category exists- the analysers. Analysers closely observe prospectors and defenders' practices and adopt a selective strategy seeking a balance. The analysers tend to adopt the practices of prominent prospectors once their viability is demonstrated. They also seek standardization by matching practices with other organizations to achieve cost efficiency. In essence, some organizations when faced with certain entrepreneurial, technological, or administrative problems, tend to closely observe competitors' practices. And once they find a desirable solution, they imitate that practice. This process is consistent with the imitative learning process suggested by Bandura, Ross and Ross (1961) whereby the subjects were set to closely observe the model and consequently the subjects started imitating some of the acts of the model covertly. Once they received fruitful results from those acts, they developed imitative behaviour. They also found that results were positive in cases where the subject and the model had matching characteristics. This process is called partial or selective imitation. The focus of the current study is to capture the behaviour of analysers.

b) Modes of Selective Inter-Organizational Imitation

Based on neo-institutional and learning theories, Haunschild and Miner distinguished between three distinct modes of selective interorganizational imitation in 1997. First, frequency-based imitation where an organization seeks legitimacy by replicating or copying the practices of most organizations in the industry. When many organizations share a practice, the legitimacy of that practice is enhanced (Li & Yao, 2010; Ordanini et al., 2008; Li, Yang, & Yue, 2007; Tolbert & Zucker, 1983; DiMaggio & Powell, 1983). When many organizations adopt the same practice the value of that practice is perceived as high (Abrahamson & Rosenkopf, 1993) and the frequency itself provides a technical rationale for adoption (Haunschild & Miner, 1997). This mode of imitation is called frequency-based imitation. Second, trait-based imitation whereby organizations adopt the

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

products, services and processes of legitimate organizations based on certain traits of those organizations such as size or high performance. Rogers (1995) suggested that high-status opinion leaders exert special influence over others. Following the actions of successful organizations can reduce failure risk for adopters since the practices have already been accepted within the industry and customers. Third, outcome-based imitation which is meant to target those practices which are successful after being implemented. It can be a starting point, a procedure, or the outcome of others' practices (Piana, 2004). This classification of imitation describes the tendency of imitative organizations to closely observe and follow other organizations' selective activities. These activities could be an idea, a technology, a process, administrative practices or an outcome of other organizations. These activities appear desirable and feasible for their own business.

c) Theories of Business Imitation: Information-Based and Rivalry-Based Perspectives

Lieberman and Asaba in 2006 laid the foundation of two theories of business imitation - the information-based theory which posits that organizations follow other organizations perceived as having superior information. This perspective describes imitative processes where organizations learn by drawing inferences from others' behaviour in the industry (Lieberman & Asaba, 2006). Owing to uncertainty of outcomes and increased risk attached to innovative activities, the imitation of superior products, services, processes, and managerial practices is identified as a fundamental part of the competitive process since it provides the imitating organizations with better ways of performing their own activities (Henisz & Delios, 2001). Organizations also seek to homogenize their products, services, and practices with other organizations under the same set of conditions to become legitimate (Haunschild & Miner, 1997; Hawley, 1986; DiMaggio & Powell, 1983). Another stream of imitation literature calls this perspective "Information Cascades or the theory of herd behaviour" according to which organizations tend to imitate others to align their behaviour with most other organizations in the market when they perceive that others possess superior information. Since this homogenization would positively contribute to the value of such behaviour and reduce the risk of negative reputation from failures (Abrahamson & Rosenkopf, 1993; Banerjee, 1992), therefore, eliminating the risk of potential negative consequences of one's own decision is the motive behind the propensity to imitate. Cyert and March (1963) argue that homogenization of practices for seeking legitimacy is rational since it is an economical approach to exploration costs to reduce uncertainty (Xie & Li, 2017). The rationale behind mimetic isomorphism and herd behaviour is that once enough organizations adopt a particular behaviour, it becomes legitimate and other organizations also follow the same behaviour without second thought (Oliver, 1997).

The other is the rivalry-based theory of business imitation which assumes that organizations imitate each other to maintain competitive parity or avoid falling behind competitors (Weterings & Boschma, 2009; Lieberman & Asaba, 2007). Building upon Tirole (1990), rivalry-based imitation is based on competition dynamics and is regarded as a response to mitigate competitive rivalry or risk. It often occurs when organizations have comparable resources and market positions. In such situations, competitive

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

behaviour of organizations is interdependent, and competition can become intense, eroding company profits and prices (Peteraf, 1993). To avoid competition, organizations may differentiate or homogenize (Deephouse, 1999). Since differentiation entails the risk of failure, homogenization through imitating others' strategies helps to maintain a relative competitive position in the market. It also helps to reduce competitive intensity by avoiding price wars (Porter, 1979). Therefore, firms often opt to pursue homogenization of practices whereby competitors tend to match actions of rivals to mitigate risk. Also known as the industrial organization perspective (Ordanini et al., 2008), this theory suggests that imitation is a conservative but profitable strategy. Organizations within an industry are interdependent and may face intense competition in the form of a leader-challenger relationship. They tend to reduce competitive intensity through competitive games (Tirole, 1990) by maintaining a balance in their utilization of resources and competitive practices avoiding price wars and aiming to enforce tacit collusion of output (Chen & MacMillan, 1992). In tacit collusion, competing firms use strategies that minimize the response of the other firm without explicitly saying so. For this purpose, organizations duplicate their product lines to mitigate rivalry (Klemperer, 1992). This matching behaviour shows commitment to the status quo, by neither giving up the current position nor falling into conflict with other firms (Chen & MacMillan, 1992). This theory suggests that industry structure plays a significant role in facilitating inter-organizational imitation. If the firms share similar sets of resources and offerings are not significantly differentiated then imitation can help them reduce rivalry and enhance their capacity to copy the decisions of other companies (Greve, 1998; Fiegenbaum & Thomas, 1995) otherwise there would be a strong competitive reaction where both firms may have to face a decline in profits because of price cuts. Imitation in an innovation supporting environment does not smoothen competition rather it may lead to inferior performance. Therefore, the propensity to imitate also serves the purpose of smoothing competitive rivalry.

d) Drivers of Imitation Orientation

To understand the motivations behind the firms' imitative behaviour, it is necessary to examine the relevant theoretical currency. Dutton and Freedman (1985) asserted that cost absorption and the risks attached to research, discovery and experimentation are the main motivational forces that encourage organizations to copy others' practices. Firms try to avoid uncertainty of business outcomes by first observing the benefits and drawbacks received by other organizations' practices, then selecting only those practices that appear beneficial and feasible to the imitating firm (Liberman & Asaba, 2006; Kraatz, 1998). Hence, externalizing exploration may represent the motivation behind propensity to imitate. In 1997, Haunschild and Miner pointed out that the main driving force of the propensity to imitate others is the reduction of environmental uncertainty under which firms search for legitimacy (Ordanini et al., 2008). Mizruchi and Fein (1999), later, added that this legitimacy can best be achieved through copying the practices of key players in the industry and helps in reducing the risk of failure under uncertain environmental conditions (DiMaggio & Powell, 1983). The organizational learning perspective on inter-organizational imitation suggests that imitation of other organizations' practices captures the experiences of superior organizations (Levitt & March, 1988). During the next decade,

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

further advancements on the same concept indicated that risk aversion and risk minimization remain an important motive behind imitation orientation. If rivals match each other, there is no risk that any firm will perform better or worse than the other. In this way, organizations maintain their competitive position by playing safe. Follow-the-leader behaviour is generated by risk aversion (Head, Mayer & Ries, 2002). Another source of management risk aversion is to avoid being negatively judged (Piana, 2004). In such a situation, if a firm follows what others did and fails, the follower also fails. Then there is no risk of losing repute as all the firms in an industry are faced with this failure, so the image of the firm is legitimized. Drawing from the above-mentioned theoretical accounts, it is concluded that organizations in a particular industry tend to closely observe and copy competitors' ideas, technologies and other practices that seem desirable to them for seeking legitimacy, avoiding uncertainty of outcomes, risk minimization and falling behind competition. After carefully analysing the previous literature, a pool of 25 items was generated. While developing the statements, the inclusion of key indicators of imitation and all possible drivers mentioned in the literature was ensured that may lead management of an organization to observe and follow other organizations' practices in an industry.

Stage II – Theoretical Analysis

The theoretical analysis phase of scale development seeks to establish content validity to ensure that the initial items pool reflect the construct of interest (Arias, Lloreda & Lloreda, 2014).

Content Validity

Content validity is the adequacy with which a measure assesses the domain of interest. The literature driven items were screened in three stages to check their suitability for the construct of management imitation orientation. Initially, 25 items were extracted based on theoretical definitions which were used as a guide for the creation of items (Schwab, 1980). This method is called deductive approach for scale development which is appropriate when some theory already exists in the literature (Hinkin, Tracey & Enz, 1997). Following the guidelines proposed by Clark and Watson (1995), due attention was paid to produce a comprehensive, comprehendible, and exhaustive initial pool of items to assess the target constructs. It was also ensured that the items cover maximum possible aspects of business strategies that may lead to imitative practices. Complex or "double-barrelled" structuring was avoided (Schaefer et al., 2015). These items then passed through peer-screening to determine whether these were non- repetitive, easily comprehendible, and communicative of the concept. As a result of this screening 18 items were retained. Those 18 items then pretested for content adequacy to provide support for content validity. For this purpose, the items were reviewed by five experts in the field including academicians and researchers and were accepted after some revisions in the initial version. The detailed comments received from the experts are described in section below.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

(a) Comments and opinions of academia experts

The questionnaire was sent to five experts in management keeping with Lawshe (1975) who suggested an expert validation panel of minimum 5 experts to conduct content validation. They were asked to give their valuable and knowledgeable opinion on the items based on the extent to which each item is consistent with the given definition and literature driven objectives of imitation orientation stating the purpose that the instrument is meant to identify the items that are consistent with the concept. To seek guided responses from the peer group and the experts, a definition of imitation orientation and an elaborative statement were developed. This is given below along with comments and feedback from each expert.

"The propensity to observe and adopt competitors' ideas or processes and industry practices into one's own organization." This orientation generates homogeneity of business practices and minimizes risk to maintain a relative competitive position in the industry and to avoid falling behind competitors or acquiring superior information from other organizations.

As per expert 1, "the items appear to be part of the instrument. You are measuring the propensity to observe/adopt. It implies the inclination/tendency to observe and the adoption of ideas and technology by the respondent. Therefore, phrase the statements in such a way that it helps in measuring the respondent's personal inclination/ tendency/ actual behaviour/ action/ attitude. It should not be a general observation about others/public". Saying this he replaced the word "We" with "I". Also, he rephrased a few items that were accepted as suggested except a few. But we ignored the suggestion of replacing "We" with "I" since the instrument is meant to investigate the collective behaviour of management on the part of firms, therefore, an individual's attitude could not be representative of a firm's practices.

Expert 2 commented that "the items reflect the following research objectives to me:

- You want to check if organisations follow the best practices in the industry
- Assumption: They help reduce cost, reduce uncertainty, or minimise risk, and will give positive results when implemented.
- You are using the term innovative organisations. Are you sure your definition of an innovative organisation is the same as that of the respondent? An innovative organisation may or may not be successful. The instrument assumes that you are only talking about successful innovative organisations".

Her perception of the items was right and was an indication that the instrument had been developed in the right direction.

Comment 1: "are you sure your definition of an innovative organization is the same as that of the respondent?" We noted the point and replaced the word innovative organizations with "competitor organizations" where the term was used to describe other organizations in general whose actions are being followed. She also commented on some items that need to be elaborated on here. Such as

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Comment 2: “Although you have used the term innovative organizations here but is there a difference between 1 and 5?" we discuss it here.

Item 1: We closely observe and respond to the best practices of other organizations.

Item 5: We look for business practices in the best of form as applied by other organizations.

Both the items were required to be part of the instrument since item 1 represents the imitation of best practices of other organizations. In contrast, item 5 corresponds to the imitation of only “the most effective form” of similar practices performed by other organizations.

Comment 3: Further she inquired about item 1 that “Are we talking about a certain type of organization or organizations in general?”

The instrument was meant to measure the imitation of business practices in a particular industry. Respondents would be asked about their competitors in general. Therefore, the item does not point to a particular organization. However, “other organizations” was replaced with “competitor organizations" as mentioned earlier.

Comment 4: She also pointed out that item 9 is not needed with item 10. Where,

Item 9: We borrow ideas / practices of innovative organizations to establish quick competitive advantage among others.

Item 10: We target opportunities in industry for competitive advantage. This comment was ignored after careful consideration since item 9 addresses the adoption of only innovative organizations' practices whereas item 10 reflects the possible opportunities available from within the industry rather than merely from innovative organizations.

Comment 5: She also suggested rephrasing items 11 and 13 to ensure that their purpose is clearly communicated. Where,

Item 11: Adopting ideas from innovative organizations is cost effective.

Item 13: Copying other organizations’ practices saves investment in research and development. This comment was incorporated.

Expert 3 suggested including one or two comparative statements as to an imitative and innovative approach. Therefore, item 12 which was “It is easy to systemize and implement an adopted idea” was replaced with “It is easy to systemize and implement an adopted idea as compared to a new one”. We also incorporated his suggestion to replace the word “copying” with “imitating” in the item “By copying other organizations’ practices we can save investments in research and development” to make the statement soft and sophisticated. He further suggested including an item addressing the price motive behind imitating a practice. Therefore, we added an item that states, "We match our practices with competitors to avoid price wars”.

Expert 4 rephrased a few statements that were accepted as suggested. Expert 5 approved the instrument stating it as an appropriate and representative piece of work for

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

the concept and its definition. In addition, it was approved for its literature-driven objectives. Table 1 represents the final version of 18 items that entered the next stage of scale development.

Table 1: Literature Driven Items

Sr.	Items	Source
V1	We closely observe and respond to the best practices of competitor organizations.	Haunschild & Miner, 1997
V2	We follow the practices of high-performance organizations.	DiMaggio & Powell, 1983
V3	Innovative organizations are better informed therefore we keenly observe them.	Banerjee, 1992
V4	Developing our own ways of doing business is a waste of time if better solutions already exist in the market.	Haunschild & Miner, 1997
V5	We look for business practices that are in the best of form as applied by other organizations.	Nunes, Mulani & Gruzin, 1997
V6	By following innovative organizations, we can earn a good reputation.	Abrahamson & Rosenkopf, 1993
V7	We can easily target the maximum number of customers by adopting ideas from competitors.	Lieberman & Asaba, 2006
V8	Practicing similar ways of doing business by all organizations in the industry is important for targeting maximum customers.	Abrahamson & Rosenkopf, 1993
V9	Borrowing ideas / practices of innovative organizations help us attain quick competitive advantage.	Levitt, 1966
V10	We target opportunities in industry for gaining competitive advantage.	Haunschild & Miner, 1997
V11	Adopting ideas from innovative organizations is cost effective.	Levitt, 1966
V12	It is easy to systemize and implement an adopted idea as compared to a new one.	Nunes, Mulani & Gruzin, 1997
V13	By imitating other organizations' practices we can save investments on research and development.	Levitt, 1966; Dutton & Freedman
V14	We receive fruitful results after implementing practices of competitor organizations.	Nunes, Mulani & Gruzin, 1997
V15	We adopt innovative organizations' ideas and practices since these are already tested.	Haunschild & Miner, 1997
V16	We seek help from competitors' practices when outcomes are uncertain.	Kraatz, 1998
V17	We believe if we stop to follow the best practices, we will fail.	Cyert and March (1963)
V18	We match our practices with competitors to avoid price wars.	Chen & MacMillan, 1992

(b) Uni-dimentionality

The purpose of this section is to develop a psychometrically sound measure of management imitation orientation in terms of reliability and validity. The items extracted from the literature in Table 1 have been quantitatively tested in this section to further the scale development process. The content validity of a construct can be tested by ensuring that all items load only on a single factor. After obtaining expert opinions and modifying

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

the scale accordingly, the uni-dimensionality of the items was ensured. For this purpose, a survey was conducted to get responses to the proposed items. The methodology used for this purpose is described below.

A) Research design

This study was aimed at developing and validating a scale for measuring management imitation orientation in the banking industry, using cross-sectional data. Qualitative methods such as literature review and expert opinion were employed for item generation and content validity. An imitation orientation scale was developed from the screened items generated from literature review for assessing the criterion validity of the scale. The data was analysed using exploratory factor analysis (FA) and confirmatory factor analysis (CFA) towards illuminating the structural and psychometric properties of the scale. In general, the research conceptualization and procedures were guided by the principles of measurement of data suggested by Coombs (1964).

Participants: The study population consisted of branch managers of various commercial banks operating in Pakistan. These banks included Muslim Commercial Bank, Habib Bank, United Bank, National Bank of Pakistan, Meezan Bank and the Bank of Punjab. Data was collected through a structured closed-ended questionnaire consisting of items drawn from literature and screened by peers and an expert panel. The questionnaires were sent to managers of the selected commercial banks operating in Lahore via electronic mail. Total 20 branches were targeted among whom 17 responded and returned the questionnaires back generating a response rate of 88%. A total of 150 questionnaires were sent, of which 131 valid questionnaires were received back. Therefore, the study sample consisted of those 131 managers. Among the 131 managers, 100 (76.3%) respondents were male and 31 (23.7%) were female. Majority of respondents (91.6%) had postgraduate qualifications. The average age of respondents was 28.85 years, with an average job tenure of 8.5 years.

Sampling Technique: The study sample was drawn using the purposive sampling technique. A purposive sample was used to overcome the consequences that can arise from a restricted class of homogeneous respondents such as reduced correlations among items, falsely low estimates of factor loadings and correlations among factors (Tucker & MacCallum, 1997; Comrey & Lee, 1992; Gorsuch, 1990). Moreover, purposive sampling is considered desirable in exploratory studies to maximize the discovery of heterogeneous patterns and problems in a particular context under study (Erlandson, Harris, Skipper & Allen, 1993). Furthermore, according to Viswanathan, Anderson and Thomas (2005), convenience sampling is considered suitable for such studies because these are not intended to draw inferences regarding population, rather are aimed at correlational analysis to examine relationships between items and constructs.

Sample Size: The sample size was determined following the guidelines for best practices in factor analysis, that is, a variable to participant ratio of 1:5, and a minimum of 100 subjects (Gorsuch, 1990). Studies suggest that sample size is not a methodological concern when developing scales (Swanson & Holton, 2005). Small samples are

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

advantageous in that they provide a more conservative means of distinguishing practical significance from statistical significance (Stone, 1978; Schmitt & Klimoski, 1991).

B) Data Collection Procedure

The reduced version of items was rated by bank managers to validate the data in an industrial context. For this purpose, prior permission was obtained from branch managers via telephone calls and referrals explaining the academic purpose of the survey. Cross-sectional data was obtained through structured questionnaires via electronic mail which took about a couple of weeks. For data collection, respondents were asked to rate how characteristic each of the following is for you" on a five-point Likert scale. The construct is developed on a 5-point Likert scale keeping in view the fact that a vast majority of scales used by behavioural scientists in survey questionnaires are Likert scales (Schmitt & Klimosky, 1991; Cook, Hepworth, Wall, TD & Warr, 1981). Moreover, it is proven that coefficient alpha reliability with Likert scales increases up to five points, then levels off (Lissitz & Green, 1975).

C) Study Context

The data was gathered from the banking industry because this industry is flourishing rapidly owing to the rising financial needs of the business sector. Moreover, a vast majority of previous studies (Latif, Qadeer & Farooqui, 2021; Lee & Tang, 2018; Frank, Cortimiglia, Ribeiro & de Oliveira, 2016; Mahmoud, Blankson, Owusu-Frimpong, Nwankwo & Trang, 2016; Lieberman & Asaba, 2006; Richard, Barnett, Dwyer & Chadwick, 2004) found the banking sector much relevant to management strategic orientations particularly imitation orientation (Deephouse, 1999; Chang, Chaudhuri, & Jayaratne, 1997). Strategic posture in an organization is exhibited by multiple layers of management (Stevenson & Jarillo, 1990). However, for this study the branch managers were chosen since they remain actively involved in the decision-making process and implementing policies in their respective branches (Richard et al., 2004) and therefore represent top management characteristics.

D) Data Analysis

The collected data was then entered into SPSS version 25 for screening for missing values and outliers. Further, exploratory factor analysis was conducted to identify items that load highly on imitation orientation. Factor analysis provides the conventional data analytical framework for scale development and theory testing (Fabrigar, Wegener, MacCallum & Strahan, 1999; McKinley et al., 1997; Floyd & Widaman, 1995).

Common Factor Analysis

The study was intended to identify the underlying structure that loads highly on management imitation orientation construct; therefore, common factor analysis was the most suitable technique to reflect what the variables share in common (Hair et al., 2014). The principal axis factoring method recommended for scale development (Ford, MacCallum, & Tait, 1986; Rummel, 1970) was conducted on 18 extracted items. The items with lower loadings were eliminated following restricted criteria of .50 suggested by

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Hair et al. (2014) for a sample of 120 observations while maintaining a power of .80 at .05 significance level. These dimensions were extracted and scrutinized based on a priori knowledge and expert opinion.

Overall Measure of Inter-Correlation

To build statistical significance, it was ensured that a structure does exist among variables before performing factor analysis. For this purpose, the indicators were observed. For an appropriate structure, a substantial number of variables should show a smaller partial correlation but that should not be less than .3. Correlation matrix in Table 2 indicates that majority of the items shared a correlation of minimum .3. Indicators V4, V10, V11, V15 were not meeting this criterion. However, they were initially retained in factor analysis for further verification.

Table 2: Correlation Matrix

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	V15	V16	V17	V18
V1	1.000																	
V2	0.380	1.000																
V3	0.390	0.469	1.000															
V4	0.203	0.269	0.146	1.000														
V5	0.445	0.430	0.357	0.341	1.000													
V6	0.316	0.460	0.307	0.335	0.501	1.000												
V7	0.324	0.242	0.135	0.201	0.446	0.475	1.000											
V8	0.122	0.098	0.045	0.324	0.244	0.431	0.285	1.000										
V9	0.299	0.221	0.298	0.378	0.481	0.404	0.384	0.342	1.000									
V10	0.055	0.122	0.218	0.177	0.201	0.121	0.015	0.029	0.001	1.000								
V11	0.020	0.184	0.177	0.189	0.187	0.050	0.114	0.214	0.089	0.155	1.000							
V12	-.007	0.317	0.416	0.258	0.147	0.286	0.214	0.296	0.197	0.343	0.366	1.000						
V13	0.253	0.289	0.369	0.289	0.471	0.331	0.268	0.338	0.401	0.116	0.143	0.296	1.000					
V14	0.153	0.301	0.270	0.370	0.195	0.506	0.369	0.294	0.379	0.064	-0.024	0.374	0.376	1.000				
V15	0.062	0.000	0.066	0.260	0.169	0.101	0.193	0.426	0.316	0.038	0.231	0.152	0.141	0.207	1.000			
V16	0.176	0.218	0.170	0.333	0.311	0.322	0.215	0.362	0.334	0.295	0.190	0.324	0.229	0.315	0.194	1.000		
V17	0.056	0.150	0.339	0.266	0.274	0.269	0.182	0.031	0.254	0.305	0.121	0.339	0.303	0.175	0.005	0.149	1.000	
V18	0.093	0.372	0.424	0.233	0.310	0.356	0.324	0.175	0.169	0.207	-0.003	0.291	0.200	0.287	0.054	0.242	0.282	1.000
a. Determinant = .002																		

Bartlett's test of sphericity was performed to check whether sufficient correlations exist among variables to be factor analysed. This test should be significant at the .05 level for factor analysis to be appropriate (Hinton et al., 2004). Table 3 indicates that the chi-square is 752.56 which is significant at p = .000 with df = 153, thus meeting the criteria. To determine whether factor analysis is appropriate for a given data set, sampling adequacy is another measure. The index value ranges from 0-1 where 1 means each variable is perfectly predicted by other variables. Kaiser-Meyer-Olkin test of sampling adequacy (Kaiser, 1974) should be greater than .7 (Perry, Nicholls, Clough & Crust, 2015). KMO value of .769 given in Table 4.3 indicates that 76.9% of variance was extracted by the factor and the analysis was appropriate for the given data structure.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.769
Bartlett's Test of Sphericity	Approx. Chi-Square	752.562
	Df	153
	Sig.	0.000

Total Variance Extracted

Since the study identifies the factor structure of only one variable, no criteria need to be applied for the extraction of a number of factors. However, to make the analysis more transparent, latent root criteria of greater than 1 and cumulative percentage criteria of 60% of total variance extracted by successive factors was applied. Table 4 represents the criteria for factor extraction based on rescaled total variance explained. The table shows that 4 factors were available to be extracted based on total variance extracted by the factor solution. Total variance represents the percentage of variance accounted for by a factor in its underlying structure. It should be greater than the common variance explained by each variable within the structure. The table illustrates that 26.766% of the total variance is explained by the information contained in the first factor. In contrast, the remaining 3 factors did not extract a sufficient amount of variance. Therefore, it could preliminary be concluded that this factor is the strongest candidate to represent the construct of imitation orientation.

Table 4: Total Variance Explained

Factor				Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.354	29.746	29.746	4.818	26.766	26.766
2	1.729	9.604	39.350	1.162	6.454	33.220
3	1.599	8.882	48.232	1.054	5.857	39.077
4	1.143	6.351	54.583	.642	3.567	42.645

Factor Matrix

The factor matrix based on rescaled data is given in Table 5. The matrix represents the loadings each item has on its respective factor. This method is widely used for the identification of underlying dimensions in extensive item sets (Park & Yoon, 2009; Ottenbacher et al., 2006). These loadings reflect the degree of correspondence between the items and their factor. As explained earlier 4 factors were extracted from the data. The loadings less than .50 were eliminated to find a more comprehensive underlying structure of the factors. Items that loaded highly on a single factor were retained whereas lower loadings and cross loadings were eliminated. The table shows that 10 items were highly correlated with the first factor. While 2 items loaded on Factor 2 and 3 with single loading each. The majority of the items share a common variance of more than .3 providing a reasonable basis for initially retaining the items. However, the fate of items containing factors 2 and 3 needs to be addressed.

Statement of item 12 (factor 3): It is easy to systemize and implement an adopted idea compared to a new one.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Statement of item 15 (factor 2): We adopt innovative organizations' ideas and practices believing that these are already tested.

The extant literature discussed above and the definition of the concept of imitation orientation reflect that the construct of management imitation orientation intends to measure the tendency of management to keep an eye on other organizations' practices in a particular industry rather than gauging the adoption of their practices. The above two indicators apparently reflect the construct that may belong to absolute adoption of an idea or practice instead of showing the behavioural tendency to imitate, therefore, can possibly be loaded on different factors.

Table 5: Factor Matrix[a]

	1	2	3	4
V1	.429	-.123	-.420	.158
V2	.555	-.295	-.108	-.006
V3	.555	-.508	.023	.026
V4	.527	.162	.073	.031
V5	.692	-.066	-.317	.347
V6	.698	.038	-.185	-.212
V7	.535	.134	-.203	-.066
V8	.494	.494	.108	.008
V9	.604	.217	-.173	.056
V10	.278	-.217	.318	.124
V11	.268	.058	.357	.355
V12	.553	-.129	.586	-.086
V13	.573	.002	-.038	.051
V14	.594	.145	.012	-.487
V15	.294	.504	.125	.152
V16	.501	.133	.153	.039
V17	.410	-.230	.171	.016
V18	.485	-.218	.041	-.170
Extraction Method: Principal Axis Factoring.				
a. 4 factors extracted. 15 iterations required.				

Nevertheless, factor 1 represents a stronger basis for measuring tendency to imitate; therefore, it can be further analysed for developing management imitation orientation.

Item-Total Correlation

Item-total correlations and squared multiple correlations were analysed using item-total statistics for identifying items that have item-total correlations above .4 which is the acceptable criteria for scale development. The results indicated that all items have an item-total correlation above .4, and most of them display squared multiple correlation greater than 30%, which is sufficient to gain insight into the underlying structure of a variable. Even though item 4 had squared multiple correlations below 30%, all items were included in the confirmatory factor analysis so that construct validation and reliability statistics could be determined. Table 6 gives item-total statistics.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Table 6: Item-Total Statistics

Sr.	Items	Item-Total Correlation	Squared Multiple Correlation
V2	We follow the practices of high-performance organizations.	.501	.372
V3	Innovative organizations are better informed therefore should be keenly observed.	.431	.316
V4	Developing own ways of doing business is a waste of time if better solutions already exist in the market.	.462	.274
V5	We look for business practices that are in the best of form as applied by other organizations.	.625	.524
V6	By following innovative organizations, we can earn a good reputation.	.649	.487
V7	We can easily target the maximum number of customers by adopting ideas from competitors.	.476	.339
V9	Borrowing ideas / practices of innovative organizations help us attain quick competitive advantage.	.577	.384
V13	By imitating other organizations' practices we can save investments on research and development.	.529	.344
V14	We receive fruitful results after implementing practices of competitor organizations.	.540	.432
V16	We seek help from competitors' practices when there is uncertainty of outcomes.	.423	.207

Stage III – Psychometric Analysis

Confirmatory Factor Analysis

Once the underlying structure of the imitation orientation scale was obtained, it was assessed for construct validity using confirmatory factor analysis using AMOS 26. It was conducted to quantify the goodness of fit of the resulting factor structure. Confirmatory factor analysis is advised for scale development since it specifies a priori relationships and confirms that the factor analysis has been conducted thoroughly and appropriately (Hinkin et al., 1997). It also identifies variables that load highly in factor analysis but lack fit due to lack of external consistency (Gerbing & Anderson, 1998). It was conducted using the maximum likelihood method on all 10 items. Figure 1 shows a 10-item reflective model of imitation orientation. It is evident from the figure that 3 items had standardized loadings greater than .6 indicating they were strong candidates for retention. 3 items had standardized loadings below 5.5 which were considered candidates for deletion. The remaining 4 items required some discussion to reach a balance between parsimony and model identification.

To be good, a measurement scale should be parsimonious to facilitate analysis but should not introduce estimation problems in case of under-identifying variables (Cronbach & Meehl, 1955). Research suggests that it is difficult to improve the reliability of five appropriate items by adding items to a scale (Schriesheim & Hinkin, 1990; Hinkin & Schriesheim, 1989). Therefore, an over-identified scale with at least 4 items is recommended (Hair et al., 2010). Items V2, V7 with equal loading of .56 and V13, V14 with equal loading estimate of .58 need to be addressed. Both pairs also showed almost equal squared multiple correlations of .310 and .334, respectively.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

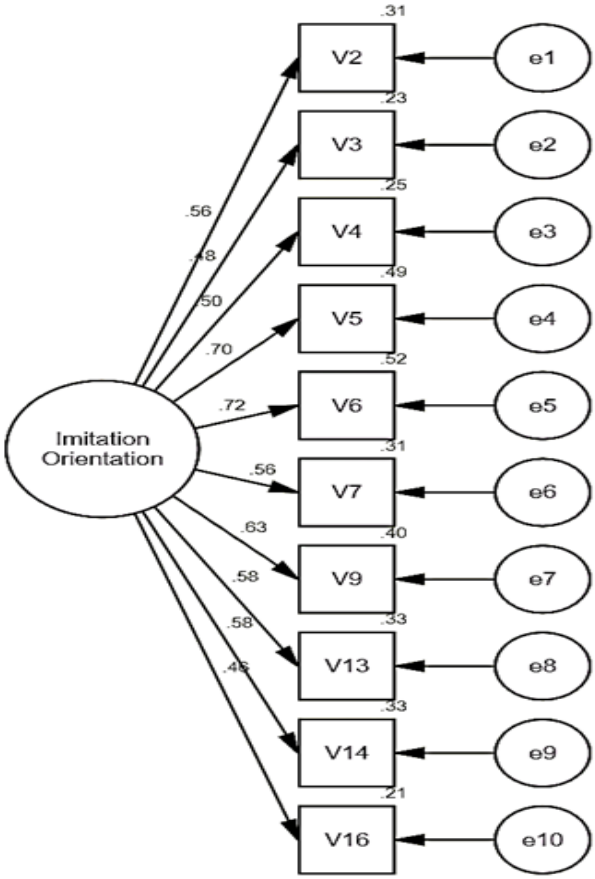

Figure 1: 10-item Reflective Model of Imitation Orientation

The confirmatory factor analysis was again carried out on the resulting 7-item scale. It was revealed that all 7 items could not be retained since the goodness of fit indices were not acceptable and the chi-square statistic was significant which should be insignificant. It was also observed that the standardized loading of V2 was reduced to .53 and that of V7 was increased to .60. Therefore, V7 was kept while V2 was deleted. But the loading estimates for V13 and V14 remained equal. Squared multiple correlation of V14 was .315 and V13 was .313 but the difference was negligible. Therefore, it was suggested that goodness of fit statistics should be obtained while retaining each of these 2 variables with other 3 already retained. Goodness of fit indices indicated that V14 should be dropped while keeping V13 in the construct. Figure 2 represents the final 5-item model indicating standardized loadings of each item on management imitation orientation. All the items have standardized loadings greater than .6 except V13 which are considered sufficient for a good measurement scale. It is also evident that loading estimates are greater than error terms suggesting suitability of the loadings.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

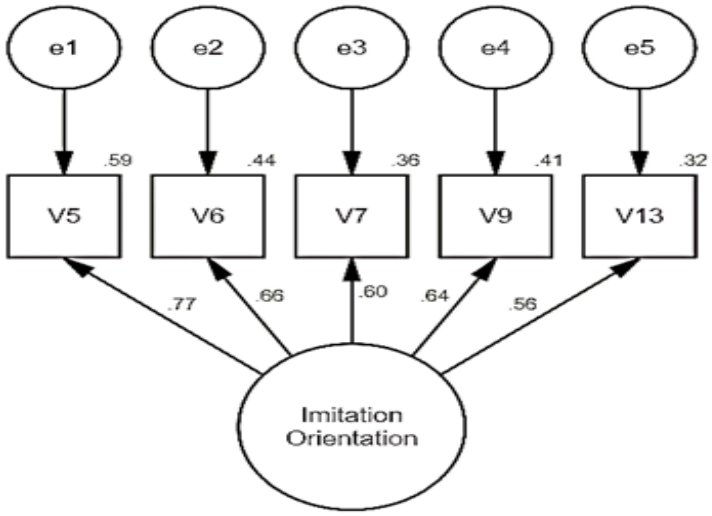

Figure 2: 5-item Construct of Management Imitation Orientation

Analysis results revealed that all the standardized loadings were significant at $p < .01$ which is an impressive parameter of statistical significance. The loadings were positive indicating that the items were of the same valence. Thus, scale development is strengthened by the above parameters. To avoid laborious effort, the scale validity assessment was done on the final 5-item construct proposed for measurement of management imitation orientation.

Table 7 represents the goodness of fit indices for the proposed indicators of management imitation orientation construct. The absolute fit index (chi square = 5.598, $p > .05$), was insignificant, supporting the theoretical foundation of imitation orientation through the corresponding observed covariance matrix. GFI was .982 whereas RMSEA was .030 at the 90% confidence interval indicating a good-fitted model (Browne & Cudeck, 1993). RMSEA below .05 describes how well a model fits its population and adjusts for sample size. As a rule of thumb one absolute and one incremental fit index can be reliable for effective results along with RMSEA (Latif et al., 2021). Therefore, selective incremental fit indices such as CFI and TLI were also observed which showed a value of .996 and .992, respectively, indicating an excellent model fit (Hair et al., 2014; Hu & Bentler, 1999). All the fit indices were within the ideally acceptable range of .95 for a better fit, therefore, it can be concluded that the model overall was good fitted.

Table 7: Goodness of Fit Indices

GOF Indices	CFA Model
χ2 (p-value)	5.598 (.347)
CMIN/DF	1.120
GFI	.982
CFI	.996
TLI	.992
RMSEA	.030 (.000 - .129 at 90% confidence interval)
PCLOSE	.525

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Construct Validity

Construct validity refers to the relationship between a measure and its underlying indicators. Construct validity has four components: convergent validity, discriminant validity, nomological validity and face validity.

Convergent validity

Convergent validity can be measured by standardized factor loading estimates, construct reliability and average variance extracted (Hair et al., 2014). It can be seen in the figure that all the loadings are greater than .5 and statistically significant. This meets the criteria of convergent validity. Another measure is the average variance extracted by indicators of a construct. It can be measured by taking the mean of squared standardized factor loadings which should be .5 or higher (Hair et al., 2014; Pallant, 2000). AVE for the proposed construct was .422 which is lower than the reference criteria. However, this lower value would be acceptable if the other criteria for convergent validity, such as reliability, are met, additionally, it does not produce discriminant validity problems (Ping, 2009). Construct reliability is also an indicator of convergent validity which should be .5 or higher (Hair et al., 2010) as a rule of thumb for a reliable scale and it is customary to use Cronbach's Alpha (Cronbach, 1951). The reliability of the proposed construct was measured using Cronbach's Alpha which was .781 thus providing support for convergent validity (George & Mallery, 2003). The Cronbach's alpha equal or above .7 represents a large coefficient for exploratory measures (Nunnally, 1978) which represents a strong item covariance and suggests that the sampling domain has adequately been captured (Churchill, 1979). Table 8 gives convergent validity estimates.

Table 8: Convergent Validity Statistics

Convergent Validity Indicator	Statistic
Standardized factor loadings	>.55
AVE	.422
Reliability	.781

Discriminant validity

For a construct to be distinct from other constructs, a recommended approach is that the AVE of an individual construct should be greater than the inter-construct squared correlation of two variables (Hair et al., 1998). For this purpose, the construct of management imitation orientation was analysed with the construct of risk aversive orientation adapted from a previous study (Wuellenweber, 2007) in CFA. The data on risk aversive orientation was gathered in keeping with Swanson and Holton (2005) who stated that "for each novel measure being developed, at least one similar measure should be included in the analysis". The results indicated that the AVE of management imitation orientation (AVE = .646) was greater than the inter-construct squared correlation (r = .127* .127 = .016) of the two variables providing evidence of discriminant validity. Moreover, there were no cross-loadings present among the items of the two constructs which also strengthens discriminant validity (Jayasinghe-Mudalige, Udugama & Ikram, 2012).

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

Nomological and face validity

In order to assure nomological validity, inter-item correlations were observed which indicated that all the items were significantly correlated with each other at $p < .01$ as given in Table 9 given below.

Table 9: Inter-Item Correlation Matrix

	V5	V6	V7	V9	V13
V5	1.00				
V6	.501	1.00			
V7	.446	.475	1.00		
V9	.481	.404	.384	1.00	
V13	.471	.331	.268	.401	1.00
p < .01					

It indicates that the items are adequately related to each other and can be used to represent a common construct. Moreover, face validity was also ensured before theoretical testing by looking into the content of the scale whether it subjectively appears to represent the concept of imitation orientation. The reliable and valid scale for management imitation orientation is given in Table 10.

Table 10: Management Imitation Orientation Scale

Sr.	Items of Construct
1.	We look for business practices that are in the best of form as applied by other organizations.
2.	By following innovative organizations, we can earn a good reputation.
3.	We can easily target the maximum number of customers by adopting ideas from competitors.
4.	Borrowing ideas / practices of innovative organizations help us attain quick competitive advantage.
5.	By imitating other organizations' practices, we can save investments on research and development.

The study defines the concept of imitation orientation as **"**the propensity to actively search, observe and follow competitors' ideas, technology or practices which appear desirable for one's own organization."

Study Implications

This study contributes to imitation and strategic management literature in number of ways. First, this study is the first attempt to conceive an operationalized definition and a reliable and valid measure of imitation orientation, after rigorous review of relevant literature and application of methodological procedures, that could be utilized in future studies to measure the varying degree of imitation orientation at firm level. Second, the validated measurement scale of imitation orientation can be used for assessing the propensity and nature of imitative practices adopted in an organization. The managers who wish to decide upon the extent of imitative practices for business outcomes can utilize the measure of imitation orientation as a strategic diagnostic tool. In-spite of relying upon the absolute presence or absence of imitation adoption in organizational processes, the management may decide upon desirable level and nature of imitative practices in the organization, for example, organizations may imitate each other for one or more of the

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

reasons of introducing new products, services and processes, adopting the managerial methods and organizational forms, entering a market and timing of investment (Lieberman & Asaba, 2006). This could be achieved by more comprehensive view of different indicators of imitation orientation in which the organization need to excel or restrain.

Limitations and Future Directions

The contributions mentioned above should be interpreted in the light of the limitations faced by the study. First, this study construed and operationalized the concept of imitation orientation. Conception of such type is liable to certain limitations. One potential limitation faced by the development of the instrument is the inclusion of all relevant items concerning the imitation orientation because of the complexity of the concept. However, this limitation has been attempted to be minimized by multiple and rigorous round of theory building through literature review and obtaining expert opinion (Vigoda-Gadot, Eldor & Schohat, 2013). Moreover, the construct has been validated using rigorous methodological approaches of theory testing (Sharma & Weathers, 2003; Steenkamp & Baumgartner, 1995). Another potential limitation faced by the conceptualization of imitation orientation is the use of convenience sample of a single industry. A particular nature of the industry may have an impact on responses regarding the imitation orientation since different industries may have different response to a specific indicator of imitation orientation. To minimize the impact of this limitation, future studies should incorporate diverse nature of industries to get varied response for further validation of the construct of imitation orientation. Therefore, this measure may assist the management in decision making and resource allocation associated with imitative/innovative activities.

CONCLUSION

The existing literature lacks a comprehensive operationalized definition and a reliable measure of management imitation orientation. This study develops and validates a reliable measure of imitation orientation based on a literature-driven definition. It is extracted from previous studies that banking organizations often actively look for competitors' practices which are successful and gain popularity after implementation. It could be an idea, a technology, a start, or an outcome of other organizations' practices that can be imitated. After a thorough analysis of the construct's reliability and validity, a 5-item Likert scale of management imitation orientation was developed. This study hopes to open new horizons in strategic management literature by providing a basis for measuring the concept in future studies.

References

1. Abrahamson, E. & Rosenkopf, L. (1993). Institutional and competitive bandwagons: Using mathematical modeling as a tool to explore innovation diffusion. Academy of Management Review, 18, 487–517.
2. American Psychological Association (1985). Standards for educational and psychological testing. Washington, DC: Author

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

3. Apesteguia, J., Huck, S., &Oechssler, J. (2007). Imitation- theory and experimental evidence. Journal of Economic Theory, 136(1), 217-235.

4. Arias, M. R. M., Lloreda, M. V. H., & Lloreda, M. J. H. (2014). Psicometría. Alianza Editorial.

5. Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. The Journal of Abnormal and Social Psychology, 63(3), 575.

6. Banerjee, A.V. (1992). A simple model of herd behavior.Quarterly Journal of Economics, 107, 797–817.

7. Bolton, D. L., & Lane, M. D. (2012). Individual entrepreneurial orientation: development of a measurement instrument. Education + Training, 54(2/3), 219–233. http://dx.doi.org/10.1108/00400911211210314.

8. Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models (pp. 136-192). Newbury Park, CA: Sage.

9. Chang, A., Chaudhuri, S., & Jayaratne, J. (1997). Rational herding and the spatial clustering of bank branches: an empirical analysis.

10. Chen, M. J., & MacMillan, I. C. (1992). Nonresponse and delayed response to competitive moves: The roles of competitor dependence and action irreversibility. Academy of Management Journal, 35(3), 539-570.

11. Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. Journal of marketing research, 16(1), 64-73.

12. Clark, L., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. Psychological Assessment, 7(3), 309-319.

13. Comrey, A. L., & Lee, H. B. (1992). Interpretation and application of factor analytic results. Comrey AL, Lee HB. A first course in factor analysis, 2, 1992.

14. Cook, J. D., Hepworth, S. J. Wall, TD, & Warr, PB (1981). The experience of work. San Diedo: Academic Press.

15. Coombs, C. H. (1964). A theory of data.

16. Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests, Psychometrica 16(3): 297-333.

17. Cronbach, L.J. & Meehl, P.C (1955). Construct validity in psychological tests. Psychological Bulletin, 52: 281-302.

18. Cyert, R. M., & March, J. G. (1963). A behavioral theory of the firm. Englewood Cliffs, NJ, 2.

19. Deephouse, D. L. (1999). To be different, or to be the same? It'sa question (and theory) of strategic balance. Strategic management journal, 20(2), 147-166.

20. Dutton, J.M. & Freedman, R.D. (1985). External environment and internal strategies: calculating experimental and imitating in organizations. In Lamb, R. and Shrivastava, P. (eds), Advances in Strategic Management, 3. Greenwich, CT: JAI Press, pp. 39–67.

21. Erlandson, D. A., Harris, E. L., Skipper, B. L., & Allen, S. D. (1993). Doing naturalistic inquiry: A guide to methods. Sage.

22. Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating

23. Fiegenbaum, A. & Thomas, H. (1995). Strategic groups as reference groups: theory, modeling and empirical examination of industry and competitive strategy. Strategic Management Journal, 16, 461–476.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

24. Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. Psychological assessment, 7(3), 286.

25. Ford, J. K., MacCallum, R. C., & Tait, M. (1986). The application of exploratory factor analysis in applied psychology: A critical review and analysis. Personnel psychology, 39(2), 291-314.

26. Frank, A. G., Cortimiglia, M. N., Ribeiro, J. L. D., & de Oliveira, L. S. (2016). The effect of innovation activities on innovation outputs in the Brazilian industry: Market-orientation vs. technology-acquisition strategies. Research Policy, 45(3), 577-592.

27. Fridland, E., & Moore, R. (2015). Imitation reconsidered. Philosophical Psychology, 28(6), 856-880.

28. George, D., & Mallery, P. (2003). Reliability analysis. SPSS for Windows, step by step: a simple guide and reference, 14th edn. Boston: Allyn & Bacon, 222-232.

29. Gerbing, D.W. & Anderson, J.C., (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. Journal of marketing research, 25(2), pp.186-192.

30. Gorsuch, R. L. (1990). Common factor analysis versus component analysis: Some well- and little-known facts. Multivariate Behavioral Research, 25(1), 33-39.

31. Greve, H.R. (1998). Managerial cognition and the mimetic adoption of market positions: what you see is what you do. Strategic Management Journal, 19, 967–988.

32. Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998). Multivariate data analysis. (5th ed.). Prentice-Hall, New Jersey.

33. Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). Multivariate data analysis. (7th ed.). Prentice-Hall, New Jersey.

34. Hair, J., Black, W., Babin, B.Y.A., Anderson, R., & Tatham, R. (2014). Multivariate data analysis. A global perspective. India: Pearson Prentice Hall.

35. Haunschild, P. R., & Miner, A. S. (1997). Modes of interorganizational imitation: The effects of outcome salience and uncertainty. Administrative science quarterly, 472-500.

36. Head, K., Mayer, T., & Ries, J. (2002). On the pervasiveness of home market effects. Economica, 69(275), 371-390.

37. Henisz, W.J. & Delios, A. (2001). Uncertainty, imitation and plant location: Japanese multinational corporation 1990–1996. Administrative Science Quarterly, 46, 443–475.

38. Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. Journal of management, 21(5), 967-988.

39. Hinkin, T. R., & Schriesheim, C. A. (1989). Development and application of new scales to measure the French and Raven (1959) bases of social power. Journal of applied psychology, 74(4), 561.

40. Hinkin, T. R., Tracey, J. B., &Enz, C. A. (1997). Scale construction: Developing reliable and valid measurement instruments. Journal of Hospitality & Tourism Research, 21(1), 100-120.

41. Hinton, D. E., Pham, T., Tran, M., Safren, S. A., Otto, M. W., & Pollack, M. H. (2004). CBT for Vietnamese refugees with treatment-resistant PTSD and panic attacks: A pilot study. Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies, 17(5), 429-433.

42. Hutz, C. S., Bandeira, D. R., & Trentini, C. M. (2015). Psicometria. Artmed Editora.

43. Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1), 1-55.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

44. Jayasinghe-Mudalige, U. K., Udugama, J. M. M., & Ikram, S. M. M. (2012). Use of structural equation modeling techniques to overcome the empirical issues associated with quantification of attitudes and perceptions. Sri Lankan Journal of Applied Statistics, 13, 15-37.

45. Jenkins, M. (2014). Innovate or imitate? The role of collective beliefs in competences in competing firms. Long Range Planning, 47(4), 173-185.

46. Kaiser, H. (1974). The application of electronic computers to factor analysis. Educational and Psychological Measurement, 141-151.

47. Klemperer, P. (1992). Equilibrium product lines: Competing head-to-head may be less competitive. The American Economic Review, 740-755.

48. Latif, T., Qadeer, F., & Farooqi, S. (2021). Individual innovative behavior: Interplay of reputation, job requirement and expected positive performance outcomes. Asian Management Research Journal, 2(2).

49. Lawshe, C. (1975). A quantitative approach to content validity. Personnel Psychology, 28, pp 563–575.

50. Lee, R. P., & Tang, X. (2018). Does It Pay to Be Innovation and Imitation Oriented? An Examination of the Antecedents and Consequences of Innovation and Imitation Orientations. Journal of Product Innovation Management, 35(1), 11-26.

51. Levitt, B. & March, J.G. (1988). Organizational learning. Annual Review of Sociology, 14, 319–340.

52. Levitt, T. (1966).Innovative imitation. Harvard Business Review, 44(5), 63-70.

53. Li, J. T., & Yao, K. (2010). The role of reference groups in international investment decisions by firms from emerging economies. Journal of International Management, 16(2): 143–153.

54. Li, J. T., Yang, J. Y., & Yue, D. R. (2007). Identity, community, and audience: How wholly owned foreign subsidiaries gain legitimacy in China. Academy of Management Journal, 50(1): 175–190.

55. Lieberman, M. B., & Asaba, S. (2006). Why do firms imitate each other? Academy of Management Review, 31(2), 366-385.

56. Lissitz, R. W., & Green, S. B. (1975). Effect of the number of scale points on reliability: A Monte Carlo approach. Journal of applied psychology, 60(1), 10.

57. Mahmoud, M. A., Blankson, C., Owusu-Frimpong, N., Nwankwo, S., & Trang, T. P. (2016). Market orientation, learning orientation and business performance: The mediating role of innovation. International Journal of Bank Marketing, 34(5), 623-648.

58. McKinley, R. K., Manku-Scott, T., Hastings, A. M., French, D. P., & Baker, R. (1997). Reliability and validity of a new measure of patient satisfaction with out of hours primary medical care in the United Kingdom: development of a patient questionnaire. Bmj, 314(7075), 193.

59. Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational strategy, structure, and process. Academy of Management Review, 3(3), 546-562.

60. Mizruchi, M.S. & Fein, L.C. (1999). The social construction of organizational knowledge: A study of the uses of coercive, mimetic, and normative isomorphism. Administrative Science Quarterly, 44, 653–683.

61. Morgado, F. F., Meireles, J. F., Neves, C. M., Amaral, A. C., & Ferreira, M. E. (2018). Scale development: ten main limitations and recommendations to improve future research practices. Psicologia: Reflexão e Crítica, 30(1), 3.

62. Naranjo-Valencia, J. C., Jiménez-Jiménez, D., &Sanz-Valle, R. (2011). Innovation or imitation? The role of organizational culture. Management Decision, 49(1), 55-72.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

63. Nunes, P. F., Mulani, N. P., & Gruzin, T. J. (2007). Leading by imitation. Outlook, 1.

64. Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

65. Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource -based views. Strategic Management Journal, 18, 697–713.

66. Ordanini, A., Rubera, G., & DeFillippi, R. (2008). The many moods of inter-organizational imitation: A critical review. International Journal of Management Reviews, 10(4), 375-398.

67. Ottenbacher, M., Gnoth, J., & Jones, P. (2006). Identifying determinants of success in development of new high-contact services: Insights from the hospitality industry. International Journal of Service industry management.

68. Pallant, J. F. (2000). Development and validation of a scale to measure perceived control of internal states. Journal of personality assessment, 75(2), 308-337.

69. Park, D. B., & Yoon, Y. S. (2009). Segmentation by motivation in rural tourism: A Korean case study. Tourism management, 30(1), 99-108.

70. Perry, J. L., Nicholls, A. R., Clough, P. J., & Crust, L. (2015). Assessing model fit: Caveats and recommendations for confirmatory factor analysis and exploratory structural equation modeling. Measurement in physical education and exercise science, 19(1), 12-21.

71. Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. Strategic management journal, 14(3), 179-191.

72. Piana, V. (2004). http://www.economicswebinstitute.org/glossary/imitation.htm (accessed on 04/10/2016).

73. Ping, R. A. (2009). "Is there any way to improve Average Variance Extracted (AVE) in a Latent Variable (LV) X (Revised)?" [on-line paper]. http://www.wright.edu/~robert.ping/ImprovAVE2.doc).

74. Porter, M.E. (1979). The structure within industries and companies' performance. Review of Economics and Statistics, 61, 214–227.

75. Richard, O. C., Barnett, T., Dwyer, S., & Chadwick, K. (2004). Cultural diversity in management, firm performance, and the moderating role of entrepreneurial orientation dimensions. Academy of management journal, 47(2), 255-266.

76. Rivkin, J.W. (2000). Imitation of complex strategies. Management Science, 46, 824–844.

77. Rogers, E.M. (1995). Diffusion of innovations. Fourth edition. New York. Free Press.

78. Rummel, R. J. (1970). Applied factor analysis, Evanston, IL: Northwestern Univer.

79. Schaefer, L. M., Burke, N. L., Thompson, J. K., Dedrick, R. F., Heinberg, L. J.,

80. Schmitt, N., Klimoski, R. J., Ferris, G. R., & Rowland, K. M. (1991). Research methods in human resources management. South-Western Pub.

81. Schnaars, S. P. 1994. Managing imitation strategies: How later entrants seize markets from pioneers. New York: The Free Press/Macmillan.

82. Schriesheim, C. A., & Hinkin, T. R. (1990). Influence tactics used by subordinates: A theoretical and empirical analysis and refinement of the Kipnis, Schmidt, and Wilkinson subscales. Journal of applied psychology, 75(3), 246.

83. Schwab, D.P. (1980). Construct validity in organizational behaviour. Research in Organizational Behaviour 2, 3-43.

84. Semadeni, M., & Anderson, B. S. (2010). The follower's dilemma: Innovation and imitation in the professional services industry. Academy of Management Journal, 53(5), 1175-1193.

Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/
Journal of Tianjin University Science and Technology
ISSN (Online):0493-2137
E-Publication: Online Open Access
Vol: 56 Issue: 08: 2023
DOI 10.5281/zenodo.8255441

85. Sharma, S., & Weathers, D. (2003). Assessing generalizability of scales used in cross-national research. International Journal of Research in Marketing, 20(3), 287-295.

86. Shenkar, O. 2010. Imitation is more valuable than innovation. Harvard Business Review (April): 28–29.

87. Steenkamp, J. B. E., & Baumgartner, H. (1995). Development and cross-cultural validation of a short form of CSI as a measure of optimum stimulation level. International Journal of Research in Marketing, 12(2), 97-104.

88. Stevenson, H. H., & Jarillo, J. C. (2007). A paradigm of entrepreneurship:

89. Stone, M. (1978). Cross-validation: A review. Statistics: A Journal of Theoretical and Applied Statistics, 9(1), 127-139.

90. Swanson, R. A., & Holton, E. F. (2005). Research in organizations: Foundations and methods in inquiry. Berrett-Koehler Publishers.

91. Tirole, J. (1990). The Theory of Industrial Organization. Cambridge, MA: MIT Press.

92. Tolbert, P.S. & Zucker, L.G., (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880-1935. Administrative science quarterly, pp.22-39.

93. Tucker, L. R., & MacCallum, R. C. (1997). Exploratory factor analysis. Unpublished manuscript, Ohio State University, Columbus.

94. Vigoda-Gadot, E., Eldor, L., & Schohat, L. M. (2013). Engage them to public service: Conceptualization and empirical examination of employee engagement in public administration. The American Review of Public Administration, 43(5), 518-538.

95. Viswanathan, H., Anderson, R., & Thomas III, J. (2005). Evaluation of an antiretroviral medication attitude scale and relationships between medication attitudes and medication nonadherence. AIDS Patient Care & STDs, 19(5), 306-316.

96. Weterings, A., & Boschma, R. (2009). Does spatial proximity to customers matter for innovative performance? Evidence from the Dutch software sector. Research Policy, 38(5), 746-755.

97. Wuellenweber, K. (2007). The role of manager's risk attitude for outsourcing success. In ECIS, pp. 430-441.

98. Xie, Z., & Li, J. (2017). Selective imitation of compatriot firms: Entry mode decisions of emerging market multinationals in cross-border acquisitions. Asia Pacific Journal of Management, 34(1), 47-68.

99. Zhou, K. Z. (2006). Innovation, imitation, and new product performance: The case of China. Industrial Marketing Management, 35(3), 394-402.