
Asiegbu, Ikechukwu F., Ph.D, 1*, Powei Daubry M., B.Sc, MBA 2.

1. Senior Lecturer, Department of Marketing, Faculty of Management Sciences, University of Port Harcourt, Port Harcourt, Rivers State, Nigeria.
2. School of Post Graduate Studies, University of Port Harcourt, Port Harcourt, Nigeria.

* E-mail of the corresponding author: ikasie@yahoo.com

Abstract

This paper is a conversation on professional competence in sales job. It examines the nature of sales force competence, its need, and the dimensions required in business-to-business and consumer durable products marketing. The paper notes that to establish, build, and sustain long term exchange relationships in these industries, use-of-sales force is imperative. However, it is of the view that for the sales force to be effective and achieve optimal performance it must have some levels of competences in terms of knowledge, skills and readiness to exhibit appropriate behavior in sales job contexts. The paper also stresses that sales force competences are required in two dimensions – sales force communicative competence and sales force marketing competence. It argues that these professional competences are vital and economical in sustaining competitive advantage in the sale of industrial and consumer durable products.

Key Word: Behavior, communicative competence, knowledge, marketing competence, sales force competence, skill

Paper Type: View Point.

1. Introduction

It is a common knowledge that organizations all over the world operate in dynamic, complex, and uncertain environments. These turbulent environments from time to time, present a number of challenges that favorably or unfavorably affect their marketing performance. Firms seek ways to use their capital to take advantage or minimize the effects of business environments on their marketing efforts. However, it has been argued that specifically human capital, not physical capital, may be the ultimate determinant of firm performance (Alder, 1998). Knowledge workers, such as salespeople, are becoming the rising power in the knowledge economy (Drucker, 1995 and 1999). Competence is the driving force behind the success of any business, especially in knowledge-based firms (Walter, 2003). Sales force is critical in business-to-business marketing because it creates and sustains competitive advantage (Avlonitis and Panagopolous, 2006). Some sales losses and business failures have been attributed to sales force ineffectiveness and incompetence (Mallin and Mayo, 2006). Low sales volume and market share recorded by some firms might not be unconnected directly or indirectly to the abysmal performance of their sales forces, resulting from their incompetence. This paper identifies the key sales force competence elements and dimensions required in the successful sale of business-to-business, domestic, and consumer durable products.

A handful of scholars have joined in the competence conversation (Mirabile, 1995; Mansfield, 1996; Woodruffe, 1992; Blancero, et al, 1996; Gerald et al, 1997; Schoonover et al, 2002; Johansson and Hurria, 2003; McCain et al, 2004; Avilar, 2005; Defloor et al, 2006; Ley et al, 2007; Zeb-Obipi, 2007). To be specific, some are on organizational communication context (Mendex Garcia and Perez Canado, 2005; Chen and Starosta, 1996); health care and counseling context (Diaz-Lazaro and Cohen, 2001); consultation (Jackson & Hayes, 1993); nursing (Koskinen and Tossavainen, 2004); dental hygiene care delivery (Fitch, 2004); bicultural communication competence (Kin, 2002); cultural competence (Wiseman, 2002); Yamazaki, 2007; Vander Zee and Brinkmann, 2004). However, none of them is specifically focused on sales force competence, hence our interest in this regard. This paper focuses on the nature of sales force competence, its need and required dimensions for optimal performance in sales job.

2. Nature of Sales Force Competence

A firm’s sales force is a team consisting of a stock of salespeople acting for the firm in prospecting, communicating, servicing, and information gathering (Asiegbu et al, 2001). The term competence originated from latin verb “competere”, which means to be suitable. A number of competence definitions abound in literature (Blancero et al, 1996; Ulrich et al, 1995; Mansfield, 1996; McLagan, 1997; Gerald, 1995; Mirabiles,
The paper takes a look at the following:

- Competence is groupings of behaviors that encompass the knowledge, skills, attitudes, motives, and temperament that distinguish excellent performers (Schoonover et al., 2000).
- Competence is the ability and willingness to carry out a task by applying knowledge and skills (Johansson and Hurria, 2003).
- Competence is a collection of observable behaviors that superior performers exhibit more consistently than average performers, grouped according to a central theme; the combined knowledge, skills, and abilities needed to perform a specific job or task (McCain et al., 2004).
- Competence is a set of behaviors that encompass skills, knowledge and abilities and personal attitudes that, taken together, are critical to successful work accomplishment. Key characteristics of competence are that it should be observable and measurable (Avilar, 2005).
- Competence is a functional adequacy and the capacity to integrate knowledge and skills with attitude and values into the specific contexts of practice (Defloor et al., 2006).
- Competence is the cognitive (e.g., knowledge and skills), affective (e.g. motivates) characteristics of dispositions of a person which enable him or her to perform well in a specific situation. Competences are dynamically combined by the performer to meet situational requirements (Ley et al., 2007).

Klein (1996) argues that competences are not psychological constructs but thematic groups of demonstrated observable behaviors that discriminate between superior and average performance. It is apparent that these behaviors require no inference, assumption, or interpretation. All these definitions share similar view. First, most of the competence definitions assume that competence elements are knowledge, skills, attitudes or other attributes which together underlie effective job performance or accomplishment. Second, these competence elements must be observable or measurable. Third, these elements of competence differentiate between excellent and other performers. This paper views sales job as unique and thus, suggest that sales force competence be uniquely defined to give the desired focus. The paper, therefore, defines sales force competence as those observable knowledge, skills, and behaviors, which differentiate between superior and other performers in the context of sales job. This definition recognizes a sales person competence to be a measure of his or her knowledge, skills and behavior in sales job (2.1). Sales job competence is, thus, a demonstration to establishing, building and sustaining above-normal marketing exchange relationship with customers and the total commitment and willingness to exhibit appropriate knowledge, skill, and behavior in a specific selling situation.

This definition is supported by Ley et al (2007), who argue that competences are behaviors that demonstrate excellent performance, but are different from knowledge, skills and motives. Competences do not include mere knowledge and baseline skills, but do include the behavioral application of knowledge and the manifestation of skills that result in success. Also, competences are not work motives, but involve observable behaviors that are related to motives. In this regard, sales force competence is portrayed as a set of success factors, which contribute to achieving high performance and concrete results in sales job.

One of the elements in our sales force competence definition is sales force skills. Skill (Techne in Greek) is used to denote expertise development in the course of training and experience (Clark, 2004). Skills mean to carryout in performance – ability to do. Sales force skill is, therefore, the demonstration of expertise, such as ability to make effective sales presentations or close sales. A sales force skill is the ability to exhibit a sequence of behaviors that achieve specific sales objectives.
of selling behavior that is fundamentally related to attaining a performance objective. Ability to identify the exact cause of the failure of a new product is a skill because it requires the ability to identify a sequence of actions, which will accomplish a specific objective. It also entails being able to identify potential obstacles to sales, and means of overcoming them. The skills can be applied to a range of different situations. Three basic types of skills are recognized, namely: basic, intermediate and advanced skills (Clark, 2004). A salesperson without basic skills needs to be tutored, trained or guided by a more experienced salesperson. A fresh graduate with B.Sc degree in marketing may have only basic skills. Intermediate skills means the basic skills have been obtained and the advanced skills imply that both the basic and intermediate skills have been obtained.

The second element of sales force competence is sales force knowledge. Knowledge is the capacity for effective action (Nielsen, 1997). This is information accumulated in a particular area of expertise, such as prospecting or sales talk. It comprises facts and procedures - to do. Nielsen (1997) maintains that competence consists of three different types of knowledge, namely: specific, integrative (or integration), and deployment knowledge, according to him, specific knowledge is knowledge concerning specific areas or knowledge domains, such as technology, engineering, medicine, or child care or customer care. However, a competence will be dependent on the integration or combination of a number of areas of specific knowledge. Integrative knowledge represents the knowledge underlying the ability to integrate the different domains of specific knowledge. Specific and integrative knowledge are, however, of little value if this knowledge is not used to create economic or commercial value for the firm. A firm needs to have knowledge about how to derive value from its technology and knowledge bases in order to survive in a competitive environment. Deployment knowledge focuses on ability to exploit and use both specific and integrative knowledge to create value that can be commercialized. Accordingly, a sales force needs to have specific knowledge in areas such as the firm’s 7Ps of marketing, competitors, customers, marketing intermediaries, the firm itself, government regulations, technological innovations, political, social, religious and other environments of marketing. They must have the ability to integrate these specific knowledge areas and utilize them in establishing, building and sustaining marketing exchange relationships with the organization’s valued customers. Thus, a sales force competence is dependent on the existence of all three type of knowledge. Each of these knowledge types has four major dimensions or characteristics, namely; content (context), location, articulation, and diffusion level. The third element of sales force competence is sales force behavior. Sales force behavior is his or her actions with regard to sales job. (c/f Solomon, 2002). These actions depend on the sales person’s self concept, motive and traits.

A sales person’s self-concepts consist of attitudes, values and self-image. A sales person’s self-image is the understanding the sales person has of his or her self and an assessment of where he or she stands in the context of values help by others in his/her environment. A trait is a general disposition to behave in certain ways. A sales person’s is an attribute he/she has which is the trait of believing he/she is in control of his/her future and fate. When a sales person faces a challenge in sale job, he/she uses his/her initiative to handle it, rather than resorting to waiting for someone else to do it.

Sales person’s motives are recurrent thoughts driving his/her behaviors. A sales force motive is a drive or thought related to a particular goal, like accomplishment, which is a need to improve and compete against a standard of excellence, high energy level, ability to take initiative, result orientation, tenacity, integrity, adaptability, resilience, ability to deal with detailed information and lateral thinking (Encyclopedia of marketing, 2001). These elements of competence – knowledge, skills and behavior are appropriate to performing effective customer relationship management and customer care management (Gilmore and Ganson, 1993) and hence required in sales job.

Ley et al, (2007) identify four levels of competence, namely basic knowledge, standardized application, complex application, and expertise. These levels indicate that a competence, usually, is composed of knowledge in a certain domain as well as skills needed for its application. It presupposes that the development of a competence in a certain domain follows a sequence: (a) basic declarative knowledge is developed first (b) skills in the form of contextualized rules are developed later (c) increasing flexible forms of application, (d) expertise refers to the highest stage of application using highly contextualized and implicit skills in the particular situation. This, no doubt, agrees with out definition of sales force competence in this paper.

3. The Need for Sales Force Competence

In both domestic and global economies, selling is increasingly becoming more vital and sophisticated. Personal selling involves direct interaction between salespeople and customers. It requires good interpersonal skills and training because of its highly professional nature. Salespeople are pre-occupied with creating value for both their firms their customers. Sales force can build long-term exchange relationships that benefit both their customers and the company it represents. Personal selling and hence, sales force is critical to the sale of many goods and services, especially major commercial and industrial products as well as consumer durables (Dalrymple, 2004).
The dizzying pace of technological innovations has continued to make consumers more fickle in their decision making. The world is becoming increasingly, a global village, stiffening competition by the day. Consequently, selling job is becoming so difficult that only professionals achieve significant success in it. Donaldson (1998) identified some challenges that are peculiar to selling jobs. These include: (i) sales force, most often, has inadequate or incomplete information about their jobs in terms of its requirements..., especially concerning the needs and preferences of customers (ii) sales force usually works alone and independently without direct supervision (iii) sales force operate in an inter-organizational boundary position, which creates role conflict (iv) sales job is demanding in terms of the degree of innovation and creativity required (v) sales job requires adaptability and sensitivity from sales force, to needs of customers frequently met by different degrees of antagonism, hostility and aggression (vi) sales decisions many have to be made quickly requiring decisiveness and mental alertness on the part of the sales force. Also Stanton and Futrell (1991) observe that salespeople need some tact, diplomacy, social poise and social intelligence in dealing with customers. These require that sales force be competent in order to be appropriate and effective in sales job (Chen and Starosta, 1998).

Furthermore, Dalrymple et al (2004) argue that increase in competition and customer developments have brought about some changes in the selling process of certain products. According to them, increase in competition is caused by globalization, shorter product life cycles, and blurred boundaries. In the global perspective, a firm operating in one part of the globe now finds itself competing with others from different parts of the world, using vendors located in other economies, or to sell to customers that are selling in other countries. These situations can give rise to intensive competition and require that the sales force adjust from a local to a global perspective. Technological innovations, transfer and its porous nature, have resulted in increasing number of competitors, shorter product life cycles, rapid imitation, thus, paving way for a relatively narrower window of product differentiation. Sales and customer focus skills required of salespeople are most important in the introduction and decline stages of the product. This means that the personal relationship and intimate customer knowledge required of the sales force become the primary basis of differentiation and leverage for a supplier (Howard, 2002). Developments in information and communication highway are often at the heart of boundary blurring. Certain applications do not draw boundaries in terms of the materials they require. For instance there are blurred boundaries in the use of metal, plastic, fibre, hardboard, paper, glass, to produce furniture. These developments have made it more difficult and complex to sell effectively against a broader set of competitors.

The customer developments that brought about some changes in selling process include the fact that customers now prefer to purchase from fewer suppliers, rising expectations, and increasing power. Buying organizations are finding that the costs of maintaining relationships with multiple supplier sources far exceed any possible price savings. Procurement and customer inventory holding costs, and the associated a closer supplier – customer relationship are better when purchasing from a few vendors. Customer expectations are continually on the increase because of the fickle nature of consumer behavior. Customer expectations are raised by how well a business performs relative to the competitors, the higher standards set in other industries, and by expectations of cost savings. As customers are becoming more sophisticated and educated, it is becoming increasingly difficult to impress them with marketing efforts. In terms of capital outlay, many dominant retailers have grown bigger and more powerful than the manufacturers and wholesalers that supply them, and they are now using their channel power to dictate and direct the supplier – customer relationship. According to Dalrymple et al (2004), these competitive- and customer–related factors account for changes in selling process such as relationship selling, customer relationship management, team selling, global account management, internal marketing, and productivity perspective. These have made the breath of knowledge, skills, and behavior required of sales force to excel in sales job increase, hence, the need for sales force competence especially in business-to-business and durable products marketing.

4. Sales Force Competence Dimensions
Any member of a sales force must possess knowledge, skills, as well as show willingness to exhibit appropriate behavior in any selling context. There is an increasing recognition of the fact that sales force should have competences necessary to carryout their activities. It is also widely recognized that sales force competences are the key to improved and even above-normal marketing performance (Carson and Gilmore, 1989). These issues are no less relevant in the context of customer care. It becomes imperative that sales must have appropriate competences for successfully implementing customer care packages. Recognizing the unique nature of sales job and critical role of sales force in customer care, value delivery, market orientation, and customer relationship management, this paper argues that for sales force to be competent in sales job it must possess both communicative and marketing competence dimensions.

4.1 Sales Force Communicative Competence
Communicative competence communication competence is the ability of a sales force to demonstrate knowledge of the appropriate communicative behavior in a given situation (Larson et al, 1978). Communication competence
describes the ability to choose a communication behavior that is both appropriate and effective for a given situation (Capstone, 2001). Communication competence consists of knowledge, skill and motivation (Spitzberg and Cupach, 1984). According to NCLRC, 2004), communicative competence is composed of linguistic, sociolinguistic discourse, and strategic. Linguistic competence is ability to know how to use the grammar, jargon and syntax of selling and marketing language. Sociolinguistic competence is: knowing how to use and respond to marketing and selling language appropriately in the selling context. Discourse competence is: knowing how to interpret the larger context and how to construct longer stretches of marketing language so that the parts make up a coherent whole. Strategic competence is: knowing how to recognize and repair communication breakdowns with customers (cf. NCLRC, 2004).

Some scholars describe communication competence in terms of appropriateness and effectiveness (Spitzberg and Cupach, 1984; McCroskey, 1982; Chen and Starosta, 1996). Effectiveness describes a sales force ability to produce intended effects through interaction with prospects, and this can be observed by the prospects with whom the sales force interacts. Chen and Starosta (1996) maintain that appropriateness of sales force behavior implies the following abilities:

(a) the sales force ability to recognize how a selling situation constrains communication with prospect and customers.
(b) the sales force ability to avoid inappropriate responses when communicating with prospects and customers.
(c) the sales force ability to fulfill appropriately such communication functions as controlling, sharing, feeling, informing, ritualizing, and imaging.

Leclerc and Martin (2004), suggest that communication competence can also be assessed in terms of non-verbal, verbal and trait perspectives. According to them, non-verbal dimension involves approachability, poise, attentiveness and touch; verbal dimension comprises language adaptability, interpersonal inclusion, and assertiveness; while trait dimension involves being open-minded, zealous, interesting and candid. Similarly, Martin and Harmer (1989), maintain that communication competence has three categories: non-verbal behavior, verbal behavior and conversational management behavior. This implies that a sales force communication competence means its ability to listen carefully to customers, sharing product and company information with customers, as well as market information with management. This means that communication competence requires the sales force to smile, look pleasant, appear corporate, be attentive to customer views and problems, and identifying with them.

Sales force is involved in a lot of communicative behavior. The communication process is highly complex and a wide range of factors may contribute to the perception of sales force communicative competence. However, Wiemann and Backlund (1980) maintain that the common aspects of communicative competence required knowledge workers are empathy, behavioral flexibility, ad interaction management, (which involves control, power, and general responsiveness to others). This paper is of the opinion sales force communicative competences can be measured with these that behavioral dimensions which is in its relationship with its customers. Empathy means taking the role of the other person and imaging the situation from his/her perspective (Rychen, and Salganik, 2001). Empathy is the ability to understand the customers’ problems from their point of view. Sales force must take time to identify with each of the customer’s concerns in a genuine manner if they want to meet or exceed their expectations, and ultimately succeed in sales job. The sales force must exhibit flexible behavior in its relationship with its customers. A salesperson must adapt behavior to that matches each selling situation. This will enable him or her understand the customers preferences and problems.

Generally, communicative competences may embrace a more tangible set of attributes namely: ability to make sound judgments, creativity, and willingness to take risks, decisiveness, and context of the total customer relationship management package. In addition, customer relationship management requires sound knowledge of customer expectations, desires, and satisfactions, and knowledge of how to translate these to the transaction and interaction processes of customer relationship management. Clearly, this requires considerable and compatible competence in communication in order to maintain mutual understanding between company and customer. Furthermore, experience and judgment can be added as key factors towards effective customer relationship management. Sound judgment in decision making is essential, but this will only be achieved by the effective mix of knowledge and communication and these will be immensely enhanced by meaningful experience competence.

4.2 Sales Force Marketing Competence
Marketing competences encompass both process and capability. Webster (1992) groups marketing processes into three categories – value defining processes, value development processes, and value delivery processes. Details are shown in Table 4.1. This paper is of the opinion that sales force must demonstrate expertise level competence in customer value delivery. In addition, customer focused-selling, team work interpersonal skills, marketing communications, and computer literacy have been listed as marketing competences that are fundamental to the
effective performance of the sales force (Baker, 1999). Customer focused selling is a demonstration of a consistent ability to meet and exceed customer expectations.

Teamwork is the ability to function as a member of a cross-functional team. Interpersonal skill is the ability to listen and understand the needs of others, to manage conflicts, and to convey information. Marketing communications involve exchange of product information between buyers and sellers. Computer literacy is the ability to use data retrieval systems, develop database, apply computer-based, apply computer based models etc.

Table 4.1: The Three Major Categories of Marketing Processes

<table>
<thead>
<tr>
<th>Value Defining Process</th>
<th>Value Developing Process</th>
<th>Values Delivering Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Analysis of core competences</td>
<td>* Development of procurement strategy.</td>
<td>* Development of the field sales force.</td>
</tr>
<tr>
<td>* Strategic positioning of the firm in the value chain</td>
<td>* Vendor selection</td>
<td>* Order entry, credit and post-sales service.</td>
</tr>
<tr>
<td>* Economic analysis of customer use systems.</td>
<td>* Strategic partnering with service providers (e.g., credit, database management, product service and disposal).</td>
<td>* Advertising and sales promotion. Applications engineering. Product upgrades and recalls. Customer training.</td>
</tr>
<tr>
<td></td>
<td>* Developing pricing strategy. Developing the value proposition</td>
<td></td>
</tr>
</tbody>
</table>


Also, according to Gillis and Beauchemin (2002), an expert sales force should consistently demonstrate competence in product knowledge, business planning, customer awareness, and knowledge sharing. Product knowledge competence is a complete familiarity with assigned products, including product history and their features and benefits. Business planning competence reflects a thorough knowledge of top-producing customers and business opportunities and challenges. That knowledge may come from territory sales data, anecdotal customer information, product bulletins, pink sheets and related backgrounder reviews. Sales people share the information formally and informally with managers and peers. Customer awareness competence is a thorough understanding of customer’s business and knowledge of the competitive market, needs and use of products in the categories. Sales force competence in knowledge is commitment to sharing knowledge throughout the organization by communicating with management through sales reports and monthly meetings about sales status.

To be experts in sales job, this papers argues that sales force needs to have the following baseline qualities and characteristics – high level problem solving ability, experimentation with new approaches, ability to apply what is learned from personal and group experiences, commitment to share what they know with others throughout the company, and interest in learning how their actions contribute to overall corporate goals. These intangible sales force competence qualities must be associated with specific quantifiable competences by defining the skills and behaviors that go along with them.

Furthermore, this paper believeurs that while a sales force should have adequate knowledge in the areas thus discussed, marketing competence specifically requires sales force to demonstrate ample exclusive and unique competences in the following functions: prospecting for new customers, qualifying leads, explaining who the company is and its products, closing orders, negotiating prices, servicing accounts, gathering competitive and marketing information, allocating products during times of shortages, creating demand, and establishing and sustaining long-term profitable exchange relationships between the organization and its valued customers.

5. Conclusion and Implication

Being competent means knowing what to do and how to get it done. The essence of competence in sales job is: knowing the effects of various environmental forces and being able to respond appropriately in moments of crisis. The ability to respond well in moment of crisis may seem merely a specialized application of a general sense of competence. Responding effectively to a crisis places special weight upon the ability to make use of appropriate knowledge and skills with speed, insight and interest. This response involves projecting a complex and partially flexible mix of calmness, energy, passion, and technical skill (Bauer, 2010). In order to remain competitive, an organization needs to position itself strategically in terms of customer care, value delivery,
market orientation, and customer relationship management. In this regard, the use of sales force becomes imperative. However, incompetent sales force has unlimited chances to be ineffective, and exhibit abysmal performance. Competence describes a number of important pre-dispositions and abilities such as commitment, empathy, flexibility, sensitivity to results and adeptness (NCLRC, 2004). Competence is considered as ability or a set of skilled behaviors (Spitzerg and Cupach, 1984). Sales force is saddled with the task of satisfying both its company and the company’s valued customers. This paper believes that for sales force to be effective in sales job, it must be capable of demonstrating relevant knowledge, skills, and behavior required for above-normal performance in any sales job situations. This makes professional competence in sales job vital. There is, therefore, the need to impress on salespeople to develop a moral compass to use those skills appropriately.

Two dimensions of sales force competences are recognized in this paper – communicative and marketing competence dimensions, for effective sales job performance. These two dimensions of sales force competence can be an inherent (trait) ability or learned (state) ability or both (Yamazaki, 2007). This paper recommends these competences to industrial and commercial products firms as well as consumer durables companies. It maintains that for a sales force to be effective in its onerous task of making the organization achieve its nominated objectives, it must be adaptive to its selling environment. This can only be possible if the sales force has adequate communicative and marketing competences which would enable them timely and precisely recognize and respond to changes in the business environment, most often, occasioned by competitive and technological innovations. In this regard, sales force competence is very critical in ensuring success in business-to-business and durable products marketing. Sales force competence can be used by these firms in gaining desired competitive strength, and achieving sustainable economic growth. A firm that engages competent sales force, no doubt, contributes, in no small measure, to the development and sustenance of not only the organization itself, but also its host economy.

References

2. Anders, P. N. (1999), Capturing Knowledge within a Competence, Department of Production, Aalborg University, Denmark.


127


This academic article was published by The International Institute for Science, Technology and Education (IISTE). The IISTE is a pioneer in the Open Access Publishing service based in the U.S. and Europe. The aim of the institute is Accelerating Global Knowledge Sharing.

More information about the publisher can be found in the IISTE’s homepage: http://www.iiste.org

The IISTE is currently hosting more than 30 peer-reviewed academic journals and collaborating with academic institutions around the world. **Prospective authors of IISTE journals can find the submission instruction on the following page:** http://www.iiste.org/Journals/

The IISTE editorial team promises to the review and publish all the qualified submissions in a fast manner. All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Printed version of the journals is also available upon request of readers and authors.

**IISTE Knowledge Sharing Partners**

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar