INSTITUTIONALIZING AND PATRONIZING SCIENCE: A HISTORY OF THE FOUNDING OF BATAVIAASCH GENOOTSCHAP

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Abstract

This article discusses an effort to advance sciences for the public benefit through institutionalization of knowledge production and a significant role of government patronage for science. With the support of the VOC colonial government, Jacob Cornelis Matthieu Radermacher founded Bataviaasch Genootschap der Konsten en Wetenschappen on April 24, 1778, for the advancement of arts and sciences in the Dutch colonies. Using the historical method, this study aimed to construct a historical understanding in explaining the founding of the first European learned society in the Asian colonies. The study found that European experience of institutionalization of knowledge production and establishment of the scientific information exchange network was a significant factor in the founding of BG and that the role of the VOC government's support was very significant to the point that BG's foundation became possible due to that support and the lack of it led to BG's temporary decline in activity from 1792 to 1812.

Keywords: *BG; European experience; government support; institutionalization of science*

PELEMBAGAAN DAN PATRONISASI ILMU PENGETAHUAN: SEJARAH BERDIRINYA BATAVIAASCH GENOOTSCHAP

Abstrak

Artikel ini membahas upaya memajukan ilmu pengetahuan untuk kepentingan publik melalui pelembagaan produksi pengetahuan dan peran yang signifikan dari patronasi pemerintah untuk sains. Dengan dukungan pemerintah kolonial VOC, Jacob Cornelis Matthieu Radermacher mendirikan Bataviaasch Genootschap der Konsten en Wetenschappen *pada tanggal 24 April 1778 untuk memajukan ilmu pengetahuan dan kesenian di tanah koloni Belanda. Menggunakan metode sejarah, studi ini bertujuan untuk membangun pemahaman historis dalam menjelaskan pendirian masyarakat terpelajar Eropa yang pertama di koloni-koloni Asia tersebut. Penelitian ini menemukan bahwa pengalaman Eropa dalam melembagakan produksi pengetahuan dan pembentukan jaringan pertukaran informasi ilmiah merupakan faktor penting dalam pendirian BG dan bahwa peran dukungan pemerintah VOC sangat signifikan hingga pendirian BG menjadi mungkin karena dukungan tersebut, dan ketiadaan dukungan tersebut menyebabkan penurunan sementara aktivitas BG dari tahun 1792 hingga 1812*.

Kata Kunci: *BG; dukungan pemerintah;pelembagaan sains; pengalaman Eropa*

I. INTRODUCTION

The study of science and society from a historical perspective can yield lessons having relevance in the present and the future both for the prosperity of society and for dealing with catastrophic situations. This article will focus on one episode of science in the colonial context, i.e., the institutionalization of scientific knowledge production in Batavia in the second half of the eighteenth century marked by the founding of BG. Understanding how the learned society emerged

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in the commercial setting of that colonial town can be a point of departure into understanding how science went through institutional development and was established through patronage and how the relation between the scientific institution and the governing body was established.

Inspired by the spirit of the European Enlightenment giving birth to learned societies in the Republic of the Seven United Netherlands in the second half of the eighteenth century, Jacob Cornelis Matthieu Radermacher (1741–1783), a VOC merchant and member of *Hollandsche Maatschappy der Wetenschappen* (henceforth HMW), proposed the establishment of a learned society in Batavia, the capital of the VOC colonial administration. He had not got approval from Governor-General Paulus Albertus van de Parra (1714–1775, in office 1761–1775) and Governor-General Jeremias van Riemsdijk (1712–1777, in office 1775–1777). It was only during the reign of Governor-General Reinier de Klerk (1710–1780, in office 1777–1780) that he obtained support to realize that plan of his by the founding of *Bataviaasch Genootschap der Konsten en Wetenschappen* or *Bataviaasch Genootschap* (henceforth BG) on April 24th, 1778. As the highest authority of the VOC government in the East Indies, De Klerk became the patron of BG and provided it with support and protection. Through circular letters, he encouraged VOC officials to become members of BG. Meanwhile, Radermacher donated a collection of his curious objects and the house De Klerk had given him to house them (Zuidervaart & Van Gent, 2004: 19–21). In its early organizational structure, Governor-General De Klerk held the position of supreme director (*Opperdirecteur*), while Radermacher was its president director (*Voorzittende Directeur*), and there were totally 192 members, spread across 20 VOC bases in the East Indies, the Indian coasts, the Cape of Good Hope, Ceylon, and Japan. (Verhandelingen van het Bataviaasch Genootschap der Konsten en Wetenschappen, 1779: 5–7, 30, 49–70).

In his book derived from his doctoral dissertation, *Van Batavia Naar Weltevreden*, Hans Groot acknowledges that BG was the first learned society in Asia (Groot, 2009: 2–3). Pieter Bleeker expressed his pride in this fact in his brief article on the history of this institution (Bleeker, 1853: 1). Since its early period, BG had possessed a cabinet of natural curiosities, which was the embryo of *Museum Nasional Indonesia* (Hardiati et al., 2014: 8–17), and a library of books and manuscripts, which was the embryo of *Perpustakaan Nasional* (Massil, 1989). The existence of the two national institutions of Indonesia and the roles they have been playing in the advancement of knowledge and culture are the evidence of BG's long history of knowledge documentation and exhibition as well as the significance of BG in the history of Indonesia.

Another contribution of this institution to the scientific knowledge production was the publication of its scientific journals. In 1779, BG published the first volume of its first scientific journal, *Verhandelingen van het Bataviaasch Genootschap der Konsten en Wetenschappen* (henceforth *VBG*). In total, there are 79 volumes, the last of which was published in 1950. In addition, 85 volumes of another of its journal, *Tijdschrift voor Indische taal-, land- en volkenkunde*, were published from 1853 to 1957 (Groot, 2009: 3).

Some authors wrote on BG in its early decades. As a secretary of BG, Pieter Bleeker wrote an article entitled "*Overzigt der Geschiedenis van het Bataviaasch Genootschap van Kunsten en Wetenschappen van 1778–1853*", included in the twenty-fifth volume of *VBG* (1853). He constructed a metropole-centric narrative by viewing the founding of BG as a realization of the spread of European civilization and sciences to Eastern countries and the Netherlands as the first nation to do so through the institutionalization of science. This is a brief overview or outline of BG's journey over the 75 years since its establishment to 1853, so that it does not provide much information on the institutionalization and networking aspects of BG. H. A. M. Snelders' article (1979), "*Het Bataviaasch genootschap van kunsten en wetenschappen in de periode 1778 tot 1816*" in *Documentatieblad werkgroep Achttiende eeuw. Jaargang 1979* and Hans Groot's *Van Batavia naar Weltevreden: Het Bataviaasch Genootschap van Kunsten en Wetenschappen, 1778–1867* (2009) were comprehensive in describing the institutional development of BG during their respective periods. However, they do not give sufficient space for tracing the root of BG to the European experience of institutionalization of science since the Renaissance period.

BG certainly did not exist in a vacuum. It did not just appear in the second half of the eighteenth century, but it had a background that could explain its existence. Thus, a few questions are raised to be answered in this article. First, what were the roots or factors leading to the founding of BG as the first learned society in European settlements in Asia in the late eighteenth century? Second, how did the social characteristic of the VOC society contribute to the founding of BG? Third, how was the relationship between the colonial government of the Company and BG at the time of its founding?

This article is a study of institutional history examining the significant factors and context surrounding the founding of BG as the first of European learned societies established in the Asian colonies (Kohlstedt, 1985). The study used the historical method: heuristics, source criticism, interpretation, and historiography (Kuntowijoyo, 2013: 73–82). The primary source used in this study is the first volume of *VBG*, published in 1779, as it provides information on the founding of BG. Other secondary sources are also used to fill the gaps in answering the questions of this study.

II. DISCUSSION

A. Institutionalizing Science in Batavia

The institutionalization of knowledge production, characterized by the emergence of institutions for the advancement of knowledge, has had a significant place in the intellectual history and history of science in Europe. Alvin W. Urquhart stated, "Scientific societies, universities, and, more recently, commercial and governmental research facilities have institutionalized modern science." (Urquhart, 1985: 55). Learned societies emphasized sharing in advancing arts, languages, and natural sciences. These institutions were part of scientific information exchange networks among intellectuals and scholars across Europe through the publication of journals of

the institutions, works of the members, as well as informal correspondence among them (Pyenson & Sheets-Pyenson, 1999: 74–100, 319–349). The study of these institutions has constituted a narrative of the history of science or that of the intellectual history that not only contains profiles of philosophers, scientists, experimenters, and inventors, as might usually be found in textbooks for school students, but also includes the vital role of scientific institutions as well as the international nature of scientific enterprises.

Learned societies had their roots in the 16th century European Renaissance, which was characterized by a high curiosity for new knowledge after gaining access to more abundant classical Greek and Latin literature (Fay, 1932: 256–257). In the Middle Ages, Constantinople maintained some classical traditions and filled its administrative elite with graduates from "diverse classically inspired schools" (Pyenson & Sheets-Pyenson, 1999: 32–33). The fall of Constantinople to the Ottomans in 1453, which marked the end of the Eastern Roman Empire, triggered some of Constantinople's learned intellectuals and the abundant classical literature to move to Italian cities. There emerged Renaissance academies for the study of classical works, from the fields of literature to natural philosophy, but there was also the *Accademia Platonica*, which was founded in Florence in 1442 (Cahall, 1892; George Sampson, 1959: 98; Hopkins, 2011: 256–257).

In the following centuries, there emerged learned societies focusing on the development of the fields of language and literature. The learned society of this type was considered "an offspring of the Italian Renaissance" (Evans, 1977: 129–151). Included in this category is *Accademia della Crusca*, which was founded in Florence in 1582–1583, was famous for compiling and publishing the first dictionary of modern Italian in 1612, *Vocabolario degli Accademici della Crusca*, and once played an editorial function to maintain the 'purity' of the Italian language used in literary writings before they were published (Tosi, 2011: 289–303). In the Kingdom of France, Cardinal Richelieu (1585–1642) founded *Académie Française* in 1635 under the reign of King Louis XIII with similar function for the French language (Evans, 1977: 129). In the German region, *Fruchtbringende Gesellschaft* was founded in Weimar in 1617 to standardize and promote German language and develop German literature, though it did not last long, while *Pegnesischer Blumenorden*, which was founded in Nürnberg in 1644, still exists today (Evans, 1977: 131–132).

In the field of natural sciences, the institutionalization of modern sciences is rooted in an awareness of the significance of cooperative production of natural knowledge and the culture of knowledge sharing. It was closely related to the Scientific Revolution in Europe. According to William Eamon & Françoise Paheau (1984: 327), in addition to the emergence of new ideas introduced to the society, the development of new institutions that played a role in discovering and disseminating new knowledge was a cornerstone for the Scientific Revolution in the sixteenth and seventeenth centuries. Lewis Pyenson & Susan Sheets-Pyenson (1999: 75) stated, "Scientific societies were an essential component, not a mere by-product, of the Scientific Revolution." The production of scientific knowledge began to be done through division of labor among researchers, investigators, observers, and experimenters, with the results shared for all. While this led to

more abundant knowledge production, the common acceptance of research findings requires the existence of scientific norms and values mutually agreed upon in order to ensure the credibility and reliability of scientific activities. Scientific societies have had their strategic role as "a vital instrument for formulating and transmitting scientific norms and values" (Pyenson & Sheets-Pyenson, 1999: 74–75). This development has led to the establishment of networks of scholars adopting the scientific norms and values in carrying out their scientific activities.

The tradition of science correspondence between scholars from different countries played an important role in the network formation in Europe. Henry Oldenburg, a secretary of the Royal Society, was known for science communication, where he built a network of correspondence with many European scholars so as to raise the Royal Society's reputation in the field of science in the continental Europe (Pyenson & Sheets-Pyenson, 1999: 88–90). In Urquhart's geographical mapping, in the second half of the seventeenth century as well as the eighteenth century, communication and information exchange activities flourished, and, with the establishment of many printing and publishing centers in Europe, the dissemination of scientific information through periodicals became increasingly dispersed until it found its way to the colonies (Urquhart, 1985: 55–71). The networks of science communication and information exchange that took place across national borders were so well established that it is not surprising that Lewis Pyenson & Susan Sheets-Pyenson (1999: 88) stated, "Modern science began as an international undertaking."

The emergence of learned societies in the field of experimental science was triggered in part by the dissatisfaction with the Medieval university (Evans, 1977: 129–131; Pyenson & Sheets-Pyenson, 1999: 46–47). However, although the Scientific Revolution did not originate within universities, the main figures of the Scientific Revolution in the sixteenth and seventeenth centuries, such as Nicolaus Copernicus (1473–1543), Andreas Vesalius (1514–1564), and Galileo Galilei (1564–1642), were all associated with universities, either as professors or alumni. Moreover, universities received, responded to, and taught new ideas about the natural science after the Scientific Revolution (Pyenson & Sheets-Pyenson, 1999: 49–51). In the second half of the seventeenth and the eighteenth centuries, the majority of the 614 European scientists included in the *Dictionary of Scientific Biography* (16 volumes), edited by Charles Gillespie, were educated at universities, and 188 (31%) scientists held positions at universities or other tertiary institutions (J. Gascoigne, 1995: 575–581).

Before flourishing in France, England, and German region, the starting point of the modern natural science was Italian cities during the Renaissance with the classical and Muslim scholars as their predecessors (Urquhart, 1985: 55). In Robert Gascoigne's historical demography, scientists in Italian region made up about fifty percent of the total European scientists in the early modern period (R. Gascoigne, 1992: 553). The institutionalization of natural knowledge also began in Italian region. Information about learned societies on the field of natural sciences existing before the seventeenth century is limited. However, historians of science mention *Accademia dei Segreti* or *Academia Secretorum Naturae*, an informal society founded by Giambattista della Porta in

Naples in the 1560s, *Accademia Segreta*, pioneered by Girolamo Ruscelli about two decades before *Accademia dei Segreti*, and *Accademia degli Affidati* (1548) in Bologna (Pyenson & Sheets-Pyenson, 1999: 83; Ruscelli et al., 1984: 328). The first, more widely known scientific academy was the one founded in 1603, based in Rome, and under the patronage and leadership of Federico Cesi, i.e., *Accademia dei Lincei*, of which Galileo was a member (Drake, 1966: 1194–1200; Hart, 1961: 22; Urquhart, 1985: 56). Another was founded in 1657 in the Tuscan city of Florence under the patronage of Ferdinando II de Medici and his brother Leopoldo de Medici, *Accademia del Cimento*, of which Galileo's disciples, i.e., Torricelli and Viviani, were members. This learned society published *Saggi di naturali esperieze* (1667), containing scientific writings with the authors' names anonymized. This learned society is said to have an influence on the founding of the Royal Society in London (Beretta, 2000; Pyenson & Sheets-Pyenson, 1999: 83).

While scientific institutions and publication found obstacles in the Italian region, science found fertile ground in northern Europe (R. Gascoigne, 1992). Royal Society was founded in London in 1660 and granted a royal charter by King Charles II in 1662. *Académie Royale des Sciences* was founded in Paris in 1666 with the support of Jean-Baptiste Colbert and King Louis XIV. These two institutions became the models imitated by other scientific societies in the eighteenth century (Pyenson & Sheets-Pyenson, 1999: 90–93). In the German region, not long after the Peace of Westphalia (1648), in 1652 emerged *Academia Naturae Curiosorum* (Evans, 1977: 135–140; Jedlitschka, 2008: 237–240). Its publication was *Miscellanea Curiosorum*. The academy later changed its name to *Deutsche Akademie der Naturforscher Leopoldina* under the patronage of Emperor Leopold of the Habsburg Dynasty in 1687, then, most recently, to *Nationale Akademie der Wissenschaften* in 2008. Another famous and still existing German learned society is *Kurfürstlich Brandenburgische Societät der Wissenschaften*, or *Societas Regia Scientiarum*, or the Berlin Academy, which was founded by Gottfried Wilhelm Leibniz (1646–1716) in 1700 with the support of the Electorate of Frederick III of Brandenburg. The society changed its name into *Königlich Preußische Societät der Wissenschaften* (1701) after the Elector was crowned King of Prussia with the title King Frederick I; into *Académie Royale des Sciences et Belles-Lettres de Prusse* (1744) after Frederick II merged it with the institution *Nouvelle Société Littéraire* (1743), then he changed the language preference from Latin to French; into *Königlichen Preußischen Akademie der Wissenschaften zu Berlin* (1810) when Wilhelm von Humboldt led the institution, then the language preference was changed from French to German; into *Preußischen Akademie der Wissenschaften* (1918) after the Kingdom of Prussia disappeared; and finally into *Berlin-Brandenburgische Akademie der Wissenschaften* from 1992 until today (The Berlin Academy, n.d.; Urquhart, 1985: 61–62).

The eighteenth-century Dutch Republic saw popularization and institutionalization of science. Not only learned individuals but also laymen and merchants were enthusiastic about attending exhibitions of physical experiments as well as scientific lectures by scholars like Benjamin Bosma and Daniel Gabriel Fahrenheit. This shows that interest in science was not limited by

the walls of universities. "This increasing interest in natural sciences outside the universities," noted H. A. M. Snelders, "led to a process of institutionalization" (Snelders, 1992: 308–312). Snelders mentions some of the learned societies that emerged in the Dutch Republic in the second half of the 18th century: (1) *Hollandsche Maatschappij der Wetenschappen*, founded at Haarlem in 1752; (2) *Zeeuwsch Genootschap der Wetenschappen*, founded at Vlissingen in 1765; (3) *Bataafsch Genootschap der Proefondervindelijke Wijsbegeerte*, founded at Rotterdam in 1769; (4) *Provinciaal Utrechtsch Genootschap van Kunsten en Wetenschappen*, founded at Utrecht in 1773; and (5) *Teylers Tweede Genootschap*, founded at Haarlem in 1778 (Snelders, 1992: 312–313).

The 18th-century science and its institutionalization in the colonial town of Batavia can be explained in terms of the networking established between Haarlem and Batavia. The attempt to establish a connection to the science in the Netherlands had already been conducted before the founding of BG. Johan Maurits Mohr (1716–1775), a learned parson living in Batavia, became the first HMW member residing in the Indies after the sending of his observation report on the transit of Venus in 1761. The report was sent to Leiden University and the University of Groningen in the Netherlands and published in the seventh volume (1763) of the *Verhandelingen* (*Transactions*) of HMW. He also built a great observatory in Batavia with the instruments sent from the Netherlands. Using the observatory, he observed the transit of Venus for the second time in 1769. The observation report was sent to the Netherlands and published in the twelfth volume (1770) of the *Verhandelingen*. He also observed a volcanic phenomenon in Java. His report on Mount Papandajan eruption in 1772 was published in the fourteenth volume (1773) of the *Verhandelingen* (Groot, 2009: 71; Snelders, 1979: 63; Zuidervaart & Van Gent, 2004: 7–11).

The idea of founding a learned society in Batavia was inspired by the founding of such institutions in the Dutch Republic in the second half of the eighteenth century. Not long after Reinier de Klerk became a governor-general, he wrote to Van der Aa, then secretary of HMW, that he would support the plan to establish the branch of HMW in Batavia and he relied the execution to Radermacher (Groot, 2009: 72–73). Although Radermacher finally determined to establish BG not as a branch of HMW, there was a genealogical relation between them as clearly shown in the first sentence of "*Voorbericht*" (Preface) in the first volume of *VBG*.

> "*Het Bataviasch Genotschap, 't geen thans het Eerste Deel zyner Verhandelingen in het licht geef, en aan het ordeel van ons geletterd Europa onderwerpt, is, om zoo te spreken, eene Dochter van de Hollandsche Maatschappy der Wetenschappen.*" (VBG, 1779: 3)
>
> "The Batavian Society, which now publishes the First Volume of its Transactions and submits it to the judgement of our literate Europe, is, so to speak, a Daughter of the Holland Society of Sciences." (VBG, 1779: 3).

The statement could have been to attract attention and secure support at the beginning of BG establishment by pointing out its links to the HMW, which had been founded decades earlier in Haarlem, had published several volumes of its *Verhandelingen*, and had already had a good reputation, but it also shows that BG was born out of the experience of institutionalization of knowledge production in Europe.

The above statement also explicitly mentioned the intended readers of *VBG* as an official means of BG's science communication, i.e., "*geletterd Europa*" (literate Europe). In addition to the fact that the language of this journal was Dutch, this statement shows the limited access to the knowledge provided by this institution, which led to a critical consideration as to the scope of meaning of the word "*het Gemeen*" (the public) used in the motto ("*tot nut van het Gemeen*") mentioned in the volume (VBG, 1779: 5) in relation to the connection established between the colony and the metropole. That the connection was maintained after the founding of BG can be seen in the fact that volumes of *VBG* were printed and published not only in Batavia, but also in the Netherlands.

B. Company Patronage in the Founding of BG

In the colonial context of the Company rule, scientific activities and scientific institutions developed not only due to the curiosity and scientific interest in individuals or groups of people to produce new knowledge. The support of the holder of power and money also played a significant role. Doing scientific investigation and experiments consumes quite a lot of time and efforts, and the provision of scientific instruments certainly requires a lot of funds, so the support of the community and/or that of the government becomes naturally necessary. Regarding the type of support for learned societies, James Hopkins divides them into two categories based on their periods: (1) the Renaissance learned societies: not formally chartered but sponsored by the nobility or royal courts, such as *Accademia dei Lincei* and *Accademia del Cimento*; and (2) Enlightenment learned academies: formally chartered and receiving state support, such as *Académie royale des sciences* (Hopkins, 2011: 256–257). Meanwhile, Bernard Fay divided learned societies in the eighteenth century into three categories: (1) those supported by a sovereign, such as the Berlin Academy; (2) those associated with some local aristocracy or wealthy bourgeoisie, such as the American Philosophical Society; and (3) those formed through a local university, such as the ones in Montpellier and Bologna (Fay, 1932: 259–260).

In the case of BG, the patronage, protection, and support were not from the nobility or the king, but from a governing body under a monopolistic company, which is also the case for the second oldest European learned society in Asia, *Asiatick Society*, founded in 1784 by Sir William Jones with Warren Hastings (1732–1818), the first governor-general and head of the Supreme Council of Bengal, as its patron (Dalrymple, 2019: 239–250; Groot, 2009: 2). However, this resulted in BG being under the influence of the VOC, shown in the Regulations which can be seen in the preface of the first volume of *VBG*. In the organizational structure, the Supreme Director (*Opperdirecteur*) was always the governor-general in office and the directors (*Directeuren*) no other than members of the High Indies Government (Article 1) (VBG, 1779: 7). Apart from that, BG was allowed to investigate various fields, especially to do research aimed at prospering the colony as well as advancing agriculture and trade, but was prohibited from investigating matters relating to the VOC (Article V) (Bleeker, 1853: 2; VBG, 1779: 8–9). Thus, in this early period,

there was a filtering in the knowledge production. This shows the extent of BG's autonomy as a scientific institution in relation to the VOC government.

Another thing to note is that along the second half of the eighteenth century, there was a tension between those who were inclined towards the mestizo culture of the VOC colonies, represented by Petrus Albertus van der Parra (in office 1761–1775) and Jeremias van Riemsdijk (in office 1775–1777), and those influenced by the European Enlightenment, represented by Reinier de Klerk (in office 1777–1780). This tension coincided with the family connection between a man and his in-laws, which was already rampant in the structure of the VOC society at that time (Taylor, 2009: 52–94). Radermacher, the center figure of the Indies Enlightenment, had a very influential family background in both the Netherlands and the VOC. He was a son of Johan Cornelis Radermacher, the treasurer-general and steward of the domains and estates of Prince Willem IV and the first Grandmaster of the Freemasonry in the Netherlands. His uncle was a member of the VOC board of directors. Being 16 years old, he moved to Batavia to become a VOC merchant in 1757. From 1763 to 1767, he studied law at University of Harderwijk, in the Netherlands. It is possible that Radermacher witnessed the popularization of science and the establishment of learned societies there, so he was enticed to found such an institution in Batavia (Aa, 1874: 34–37; Stevens, 2004: 57; Zuidervaart & Van Gent, 2004: 19–22). However, his proposal of founding a learned society in Batavia had not got approval during the reign of Van der Parra and Van Riemsdijk. He succeeded in obtaining patronage and protection for BG not long after Reinier de Klerk became a governor-general of the VOC. "The fact that De Klerk was the stepfather of Radermacher's wife," noted Zuidervart & Van Gent, "surely contributed to the eventual launching of this first learned society in Asia" (Zuidervaart & Van Gent, 2004: 20–21). Thus, the combination of the Indies Enlightenment and the family connection provided an opportunity for Radermacher to secure patronage for BG.

With the deaths of Governor-General De Klerk in 1780 and Radermacher in 1783, BG gradually experienced a decline in activity due to the lack of sufficient support (Goss, 2011: 8; Zuidervaart & Van Gent, 2004: 25). Hans Groot noted that BG began a period of sleep in 1792 until it was revitalized and provided with patronage in 1812 under the reign of Lieutenant-Governor Thomas Stamford Raffles (Groot, 2009: 5).

III. CONCLUSION

A. Inference

From the story of the founding of BG above, some conclusions can be drawn. European experience of institutionalization of science and establishment of the science communication networks was a significant factor in the founding of BG in Batavia. Moreover, the role of the VOC government's patronage at that time was quite decisive to the point that the founding of BG became possible due to that support, and the lack of it led to its temporary decline in activity from 1792 to 1812. Family connection had also its role in the founding of BG. While Radermacher

belonged to an influential family in the Netherlands and the VOC, his proposal to found BG was approved and supported by Governor-General Reinier de Klerk, his father-in-law.

B. Recommendation

The scope of this article is limited to the early establishment of BG. It is recommended that there be further studies concerning the aspects of networking and patronage of BG in other periods, or of other scientific institutions in Indonesia, to see the extent to which these two aspects play their roles in the institutionalization of scientific knowledge production along the history of Indonesia. The historical perspective on the role science and scientific institutions play in society as well as on the support of the government and the community can contribute to the knowledge database and provide a consideration for policy makers in terms of science and educational policy making in Indonesia.

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