

VECONREF

Building an Online Database of Research in Vietnamese Economics

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Abstract

This paper documents the process of building an online research database in Vietnamese Economics. Problems specific to the subject area and our solutions are discussed. Although the main focus is on Vietnamese Economics, our approach could have useful relevant implications to other subject and country areas in Asian Studies.

1. Introduction

The Vietnamese Economics Network (VECON) was set up in 1997 mainly to promote research and communications about economic issues concerning Vietnam. The network is open to anyone (economist and non-economist, Vietnamese and non-Vietnamese) with a serious interest in this small least-developed transition economy.

Although the term “Vietnamese Economics” was coined¹ to refer to the currently sparse area of research on the economy of Vietnam, we meant to appreciate the interdisciplinary nature of the topic which could go beyond the normal demarcation line of economics and span across neighboring subjects such as administration, anthropology, history, law, management science, political economy, politics, psychology, and sociology.

In our effort to build the research infrastructure for Vietnamese Economics, an important first task is to develop a bibliographic database of research currently available around the world. This crucial research tool will allow us not only to take stock but also identify gaps and directions in the literature.

Excellent bibliographies and research guides on Vietnam do exist (e.g., Chen [1973], Descours-Gatin and Villiers [1983], Dunn [1990], Hastie [1992], and Marr [1992]). For our purposes, however, they all suffer the following three serious deficiencies: (i) at least a decade old; (ii) in printed book formats suffering publication lags and inability to keep up with new developments in the literature; and finally (iii) either too specific (e.g., Dunn [1990] solely on the US-Vietnam war) or too general with very little coverage on economics. For example, Marr’s [1992] comprehensive bibliography had 1038 annotated items and yet, the Economy section contained only 58 items (from 762 to 820) under five headings (General, Foreign Investment, Industry, Agriculture, and Trade) – i.e., only 5.6% of the total number of references listed.

On the other hand, library sources, though useful, are not always easily accessible outside a handful of universities and research libraries with specialized Vietnamese collections such as Cornell University, University of Hawaii, University of Washington, Library of Congress, and Bibliothèque Nationale de France. The library scope is, however, often too general and overwhelmingly comprehensive. There are also serious problems of misspelling of Vietnamese names and titles in catalog. Although the American Library Association (ALA) has developed extended character sets to support library cataloging for many Asian languages including Vietnamese, this experimental effort still leaves much to be desired.

¹ In a 1994 conference paper at University of Victoria, Nagatani [1995] coined the term “Vietnamese Economics” for the first time, though in a different context, as follows: “... I have gained the following impression of ‘Vietnamese Economics.’ First, it is strongly physical or engineering in character, reflecting the socialist command-type management of the past. Second, it related to money and finance ... Third, the microeconomics of individual incentives and choices is almost nonexistent. Fourth, it has yet to find a workable compromise between efficiency and equity ...” (p. 182).

We are looking for a time-sensitive database with a research focus on the Vietnamese economy which could include published or unpublished works, produced inside or outside Vietnam, and written in English or Vietnamese (or French). To maintain its usefulness, the database will need to be regularly updated to reflect the current status of the literature. Technical problems such as required fast turn-around times, general public participation, and Vietnamese language issues, however, will make it difficult, if not impossible, to pursue the project on a low-cost basis along the line of traditional commercial publishing.

The “innovative” feature of our approach is that, once we are totally convinced of our idea of a research database, we just proceed to get a headstart with whatever resources available — mainly volunteer work from our part and grass-root public contributions from concerned researchers. The Internet is a key factor in the success of our approach as it allows us to accomplish various steps of editing, compilations, publications, and distributions in a cost-effective way.

This paper documents the development of our online research database in Vietnamese Economics entitled VECONREF (VECON References). Problems pertaining to the subject area of Vietnamese Economics and our solutions will be discussed. Many issues we are forced to deal with have not been addressed in the literature of Vietnamese Studies, Southeast Asian Studies, or Asian Studies before. Although the focus here is on the Vietnamese economy, our approach could have useful implications for other fields and country areas in Asian Studies.

The remaining of the paper is organized as follows: section 2 discusses many important language issues concerning Vietnamese in bibliographic references while Section 3 describes our experience in dealing with special bi-lingual design problems of Vietnamese names, sorting and retrieval, subject classifications, accessibility and availability. We also presents some preliminary analysis of the direction of the literature using our database. Section 4 concludes the paper with some concluding remarks.

2. Vietnamese Language Considerations

Almost all commercially published bibliographical databases on Vietnam suffer a major deficiency in their improper treatments of Vietnamese writings. In the absence of cost-effective typesetting tools for Vietnamese, commercial printers must resort to brute-force attempts to squeeze this language into the popular (though rather limited) framework of English typesetting practices. To realize the seriousness of the problem, we need to have a rudimentary understanding of this unique Latin-based language in Southeast Asia.

2.1. Diacritical Marks

Linguists often classify Vietnamese as the main member of the Mon-Khmer group within the Austro-Asiatic family of well over 100 languages spoken in the region of Southeast Asia (Crystal [1987], p.309). Under the Chinese influence, the Vietnamese spoke their

own language but used the character-based Chinese for official written work in the royal court. For informal work, however, they developed their own “Chữ Nôm”² (Southern written words) which was basically a modified version of written Chinese. These two writing systems co-existed for centuries until 1624 when the Portuguese missionary Alexandre de Rhodes codified a Romanized writing system of Vietnamese with supplementary diacritical marks to facilitate his missionary work (Thompson [1987], p. 54). After conquering Vietnam in 1884, the French, for political and colonial administrative reasons, tried to suppress the old “pro-Chinese” character-based writing system in favor of the new “pro-Western” Latin-based one. Many Vietnamese writers saw the benefits of this easy-to-learn system and made important contributions to perfect the language to its present modern status.

For a quick comparison, we line up 29 Vietnamese alphabets on top of 26 corresponding English alphabets (with a dot for each missing one) as follows:

a **ă** **â** b c d **đ** e **ê** . g h i . k l m n o **ô** **ơ** p q r s t u **ư** v . x y .
a . . b c d . e . **f** g h i **j** k l m n o . . p q r s t u . v **w** x y **z**

The line-up clearly shows that Vietnamese has 7 letters (ă, â, đ, ê, ô, ơ, ư) with no English counterparts. Therefore, if we must use English to write Vietnamese, there are only 5 English letters (a, d, e, o, u) to express 12 Vietnamese counterparts (a, ă, â, đ, e, ê, ô, ơ, ơ, u, ư). That is, $12 - 5 = 7$ Vietnamese alphabets will never be properly described in English. In other words, Vietnamese loses almost a quarter of its alphabets ($7/29 = 24\%$) during this “Anglicization” process.

This significant loss does not stop at the preliminary calculation above. Although Vietnamese uses a Latin-based writing system, it is a tone language³ which requires a rather large number of add-on diacritical marks to reflect different speaking tones, and hence, different meanings. Specifically, each of the following 12 Vietnamese vowels has five additional diacritical marks to describe different tones as follows:

a á à ả ã ạ	ă ắ ằ ẳ ẵ ặ	â ấ ầ ẩ ẫ ậ
e é è ê ë ẹ	ê ế ề ể ễ ệ	
i í ì ỉ ã ị		
o ó ò ỏ õ ọ	ô ố ồ ỗ ỗ ộ	ơ ớ ờ ở ỡ ợ
u ú ù ủ ữ ụ	ư ứ ừ ử ữ ự	
y ý ÿ ỹ ỹ ỵ		

Thus, in total, we need a staggering number of $29 + (12 \times 5) = 29 + 60 = 89$ Vietnamese characters to write the language properly. If English is used as a proxy, we have an under-representation problem of only 7 English letters (a, d, e, i, o, u, y) for a ten-fold

² Chữ means “written words” and Nôm is probably a dialect version of Nam which means “south.” The Vietnamese often refer to themselves as southerners and to the Chinese as northerners.

³ In a tone language, it is possible to change the meaning of a word simply by changing the pitch level at which it is spoken. More than half the number of languages in the world are tone languages (Crystal [1987], p.172).

number of 74 Vietnamese characters.⁴ The actual loss would then be $74 - 7 = 67$ which amounts to three quarters of the entire set of Vietnamese characters ($67/89 = 75\%$) to be thrown away by proxying Vietnamese with English (i.e., more than three times the loss obtained by preliminary calculations above).

These results stress the long overdue need to redress the neglected problem of diacritical marks in many research publications including bibliographical databases on Vietnam. Unfortunately, for various reasons, this negligent practice has been so widespread that it becomes more of an established rule than an exception. This method of “initiating the uninitiated with a crippled demo version of the language” would do more harm than good to both uninformed readers and the language itself. Consequently, we believe that it is about time to push forward the strong view that *proper Vietnamese writing with complete diacritical marks, especially for serious research publications, is not (and should not be) an option — for the very reason that true scholarship requires it.*⁵

In some languages, missing diacritical marks or alphabets, though not desirable, might not critically affect the chance of misinterpretation.⁶ This would not, however, be the case for Vietnamese since diacritical marks often play a crucial role in deciphering intended meanings of the words in question. For example, without complete diacritical marks, the popular Vietnamese buzz words “Doi Moi” [Đổi Mới] for economic reforms can render at least five different possible interpretations as follows:

- Đổi Mới (make new change) which is the intended meaning,
- Đợi Mới (wait for new change),
- Đời Mới (new life),
- Dòi Mới (new maggot),
- Đôi Mồi (tortoise).

The last two interpretations can be immediately discarded as they bear little resemblance to economic reform policy. The first three ones are, however, not easy as they are all more or less equally possible choices.⁷ Without additional information revealed by diacritical marks (or by hindsight), there is no conceivable way to pick one over the other two. A second example is the classic case of ambiguity in the phrase “ngươi đàn bà dâm dăng” which could be interpreted in two opposite ways as follows:

- ngươi đàn bà dâm dăng (an aphrodisiac woman) with a bad connotation,
- ngươi đàn bà đằm đằm (a resourceful woman) with a good connotation or praise.

Missing diacritical marks can be a serious problem in bibliographical databases when author names are incorrectly processed. To make our point, consider an extreme case where ten different Vietnamese authors with names

Trần Văn Hoa

Trần Văn Hoa

⁴ That is, 72 vowels with diacritical marks above plus 2 consonants (d, đ) which make $72 + 2 = 74$.

⁵ Perhaps, a gastronomic version of this might read as: “Vietnamese without diacritical marks tastes like pizza without toppings” (i.e., bland, tasteless, uninteresting, incorrect, and simply out of style).

⁶ For example, we probably can ignore the French cedille “ç” as in “garçon” and get away with the poor substitution “garcon” without a serious chance of wrong guessing (as “garcon” has no meaning in French).

⁷ The third one, Đời Mới (new life), has once been used to name a reform policy by the defunct Republic of Vietnam.

Trần Văn Hóa
Trần Văn Hòa
Trần Văn HỎA
Trần Văn HỌA

Trần Vân Hóa
Trần Vân Hòa
Trần Vân HỎA
Trần Vân HỌA

could be stripped of their rightful diacritical marks and then incorrectly classified under one single author name “Tran Van Hoa” by an unsuspecting and uninformed library cataloger. Our proposed solution is to include complete diacritical marks (in square brackets) as follows:

Tran Van Hoa [Trần Văn Hoa]
Tran Van Hoa [Trần Văn HÓA]
Tran Van Hoa [Trần Văn HÒA]
Tran Văn Hoa [Trần Văn HỎA]
Tran Văn Hoa [Trần Văn HỌA]

Tran Van Hoa [Trần Vân Hoa]
Tran Van Hoa [Trần Vân HÓA]
Tran Van Hoa [Trần Vân HÒA]
Tran Văn Hoa [Trần Vân HỎA]
Tran Văn Hoa [Trần Vân HỌA]

2.2. Vietnamese Fonts

There are difficulties in implementing Vietnamese on computers mainly due to the large number of characters required for this language (see, e.g., Vietnamese Standardization Group [1992]). Without getting into technical details, we can have a feel for this design problem by noting that computers can have only 256 slots for character allocation. Half of this number were already taken by the English language⁸ and the remaining 128 slots are left for international customization. That is, we can have up to 128 free slots to design special Vietnamese characters. However, a quick count (see footnote 4) reveals that we would need $74 \times 2 = 148$ slots for Vietnamese characters in upper and lower cases. Thus, the problem is that we just do not have enough slots for Vietnamese. Even if we manage to take advantage of some available English letters (a, d, e, i, o, u, y), we still can only get down to 134 slots⁹ — i.e., we are still $134 - 128 = 6$ slots short.

The natural solution is to pick 6 slots which are deemed to be least frequently used and then replace them with Vietnamese characters. There is, however, no general consensus among font designers on which 6 slots to be the best candidates for replacement. The result is a growing number of competing Vietnamese character encoding standards (hereafter simply referred to as fonts) with the following four most popular fonts: VISCII and VPS created by two different groups of overseas Vietnamese, TCVN developed in Vietnam with government backing, and VNI which is commercially owned.¹⁰

⁸ This English language code (called ASCII) uses the first 32 slots for special control characters and the remaining 96 slots for various letters in upper and lower cases, numbers, punctuation, symbols, and foreign accents.

⁹ We need 67 slots for Vietnamese characters in lower case (á, à, â, ã, ạ; ã, ấ, ầ, ẩ, ẫ, ậ; â, ấ, ầ, ẩ, ậ; đ; é, è, ê, ë, ẹ; ê, ế, ề, ể, ệ; í, ì, ỉ, ị; ó, ò, ỏ, ơ, ơ; ô, ổ, ồ, ỗ, ộ; ơ, ớ, ờ, ỡ, ợ; ú, ù, ủ, ù, ư; ư, ứ, ừ, ử, ữ; ý, ÿ, ỹ, ỳ). Adding 67 more slots for the same characters in upper case, we get the required count of $67 \times 2 = 134$.

¹⁰ VISCII (Vietnamese Standard Code for Information Exchange) by the Vietnamese Standardization Group <http://www.trichlor.org/> is the oldest and most popular among overseas Vietnamese; VPS, also known as VNCII (Vietnamese Code for Information Exchange) by the Vietnamese Professionals Society <http://www.hcgvn.net/software/>; TCVN (Tiêu Chuẩn Việt Nam) is government-supported and hence, used by all official web sites in Vietnam http://home.vnd.net/utilities/vn_font.html; VNI by VNI Software <http://www.vnisoft.com/> is the least popular among the four mainly because it is not free.

Although each of these fonts has its own design problem, the political rift between overseas Vietnamese and the Communist government in Vietnam makes it difficult to foresee any agreement or cooperation on font designs. From a technical point of view, *computer fonts do not (and should not) wear political hats*. That is, using made-in-Vietnam TCVN fonts does not imply a “pro-Communist” stance just as using made-outside-Vietnam VISCII or VPS fonts does not mean “anti-Communist” or using VNI fonts does not mean “pro-business.”

An additional complication is that users must have installed exactly the same fonts used in a document before it can be read properly in Vietnamese. That is, their computers must already have TCVN fonts to browse government web sites in Vietnam. Similarly, VISCII documents require VISCII fonts, VPS documents require VPS fonts, and so on. Thus, users might have to retain a very large number of Vietnamese fonts on their computers in order to handle various types of documents. Our proposed solution is to create documents in the popular Portable Document Format (PDF) with embedded fonts so that they can be immediately read in Vietnamese with the free Acrobat Reader software¹¹ without concern about font requirements.

In practice, commercial printers and publishers, for a variety of technical and financial reasons, might not be willing to install foreign Vietnamese fonts into their computer systems. In that case, the popular Vietnamese Quoted Readable (VIQR) writing style (see Vietnamese Standardization Group [1992], chapter 4) can provide a second-best solution by simulating Vietnamese diacritical marks without actually using Vietnamese fonts. For example, the seven special Vietnamese characters (ă, â, ê, ô, ơ, ư, đ) can be written in VIQR style as follows:

a (for	ă
a ^	for	â
e ^	for	ê
o ^	for	ô
o +	for	ơ
u +	for	ư
dd	for	đ

Similarly, the five diacritical marks can be written as follows:

a '	for	á	a ('	for	ắ	a ^ '	for	ắ
a `	for	à	a (`	for	ằ	a ^ `	for	ầ
a ?	for	â	a (?	for	ă̂	a ^ ?	for	ă̂
a ~	for	ã	a (~	for	ẵ	a ^ ~	for	ẵ
a .	for	ạ	a (.	for	ạ	a ^ .	for	ậ

For comparison, here is an example of the Vietnamese translation of a well-known English title “From Plan to Market” with and without Vietnamese fonts:

with Vietnamese fonts:	Từ Kế Hoạch Đến Thị Trường
without Vietnamese fonts:	Tu+` Ke^' Hoa.ch DDe^'n Thi. Tru+o+`ng
VIQR style	

¹¹ See <http://www.adobe.com/products/acrobat/readermain.html>.

In summary, while Vietnamese fonts certainly need more improvement in order to win acceptance by commercial printers and publishers, the critical problem of neglected diacritical marks in the literature must be seriously considered. The VIQR writing style might offer a temporary solution for both printers and authors.

3. Bibliographic Database Considerations

This section presents some special problems pertaining to Vietnamese reference sources which seemed to receive little or no attention in the literature.

3.1. Vietnamese Names

Like many Asian countries, Vietnamese names are traditionally addressed in a strictly non-exchangeable order — family name followed by middle name and personal name — without any separating punctuation.¹² These components must always go together in that exact order to make a single composite block of names. Some writing handbooks do recognize and recommend this customary protocol (e.g., Chicago Manual of Style [1982], sections 18.116, 18.117). If there is a need for ranking, these names are sorted by personal names such as

Trần Văn An,

Nguyễn Trường Tộ

rather than the usual Western sorting by family names first

Nguyễn Trường Tộ,

Trần Văn An.

Many modern Vietnamese authors have, for a variety of reasons, adopted the Western modular approach of breaking their names into movable components which can then be reassembled in different ways such as

An Văn Trần,

Tộ Trường Nguyễn.

The choice of this reverse name style is probably due to the need to conform (voluntarily or involuntary) to Western legal, technical, and commercial requirements — especially in English-language publications. The matter becomes even more confusing as some authors switch back to their original names when they write in Vietnamese. Hence, even experienced researchers or librarians might not realize that, for example, publications in English by “An Văn Trần” and in Vietnamese by “Trần Văn An” are, in fact, authored by exactly the same person. Our solution to this “language-dependent” name problem is to provide a complete cross-reference of both names as follows:

An Văn Trần [Trần Văn An],

Tộ Trường Nguyễn [Nguyễn Trường Tộ].

¹² See, e.g., Lê Trung Hoa [1992] for detailed accounts of Vietnamese names.

In straightforward cases, Vietnamese names usually come in a set of three single words with common gender-specific middle names (e.g., “Thị” for women as in “Nguyễn Thị Định” and “Văn” for men as in “Trần Văn An”). In less clear-cut cases, however, it will be much harder to decipher compound middle or personal names. For example, without prior knowledge, the name

Nguyễn Trần Đăng Lý
could lead to two different interpretations (hyphenation added for easy reading) as follows:

Nguyễn Trần-Đăng Lý (middle name Trần-Đăng and personal name Lý)

Nguyễn Trần Đăng-Lý (middle name Trần and personal name Đăng-Lý)

The ambiguity continues when carried over to the Western name order:

Lý Trần-Đăng Nguyễn [Nguyễn Trần-Đăng Lý]

Đăng-Lý Trần Nguyễn [Nguyễn Trần Đăng-Lý]

3.2. *Supplementary Names*

In addition to their real names, Vietnamese authors, especially the older generations, also use a variety of literary or courteous names. Unlike pseudonyms (e.g., Charlotte Brontë, George Sand, Stendhal, Khái Hưng, Nhất Linh) which replace authors’ names completely, these supplementary names often precede real names in an inconspicuous way such that without prior knowledge, it can be quite difficult to differentiate them from possible co-authors’ names. The number of authors thus can be incorrectly counted by at least a factor of two (e.g., a publication by three authors all having supplementary names could be miscounted as $3 \times 2 = 6$ authors). Our solution to this ambiguity is to clearly identify supplementary names with either parentheses or superscript as follows:

(Lê Thân) Trần Trọng Kim,

^(Lê Thân) Trần Trọng Kim.

Note that we can only handle cases where supplementary names are already known. That is, we do not address the very first question of identifying those tricky supplementary names. A long-term solution is perhaps to set up a research database such as “Vietnamese Authorship Registry” to document cross references of author names with all supplementary names known to date (e.g., aliases, pseudonyms, pen names, literary names, courteous names, and code names).¹³ This is, however, a large project requiring careful organization, administration, funding, support, and grass-root participation — which is far beyond our current scope and ability.

3.3. *Sorting & Retrieval*

Sorting presents a major difficulty in our bilingual database as it requires proper handling of both English and Vietnamese at the same time. As explained in section 2 above, the Vietnamese character set is much larger than the standard English counterpart. This means that some characters will not be properly sorted according to the usual English sorting order (e.g., the Vietnamese letter “Đ” might end up being after the last English

¹³ Rumor has it that a prolific young Vietnamese author in France has written under as many as 22 different assumed names.

alphabet “Z” rather than following the sequence “ABCDĐ” in Vietnamese). The reason for this peculiar problem lies in the fact that Vietnamese has still not been incorporated into any major commercial database software. Until the language is certified and accepted by software developers, our compromised solution is to use both English (mainly for sorting and retrieval) and Vietnamese (for correct citation) as follows:

Dahm, Henrich

Dang Duc Dam [Đặng Đức Đạm]

Dao Van Tap [Đào Văn Tập]

Dawkins, Chris

Our database can be sorted and retrieved in exactly the same fashion as any other bibliographic database. Search and retrieval of authors or titles with complete diacritical marks will, however, require additional Vietnamese keyboard drivers.

3.4. Subject Classification

We follow the Journal of Economic Literature (JEL) subject classification system for journal books and journal articles as much as possible. This system has been developed by the American Economic Association for the fast growing field of economics. Some additional subjects are added to cover areas important to the research infrastructure of Vietnamese Economics such as instructional development and textbooks, theses and dissertations, as well as translations and compilations of English-Vietnamese technical terms. Our classification is still in a developmental stage, and expected to be frequently updated to reflect the current state of research in the area. Currently there are 21 different subjects (with comparable JEL codes in parentheses) in the database as follows:

1. *00New*

list of new additions in each revision for quick perusal

2. *Agriculture & Rural Development*

agricultural economics (Q0, Q1) including subtopics such as agricultural finance (Q14), land ownership and tenure, land reform (Q15); agriculture in international trade (Q17); agricultural and food policy (Q18)

3. *Economic Development, Technological Change, and Growth*

economic development (O1); development planning and policy (O2); technological change (O3); economic growth and aggregate productivity (O4); and economywide country studies (O5)

4. *Environmental Economics*

environmental economics including environmental management (Q2)

5. *General Economics*

general economics (A1) including general non-technical discussions of issues, overviews, and reviews of the Vietnamese economy

6. *Health, Education, and Welfare*

health (I1); education (I2); welfare and poverty (I3)

7. *History & Economic History*

history; economic history (N0)

8. *Industrial Organization*

- general industries (L0); market structure, firm strategy, and market performance (L1); regulation and industrial policy (L5); sector industry studies (L6-L9) such as manufacturing, primary products/construction, services, transportation/utilities
9. International Trade
 - international trade (F1); global outlook (F01); international economic order (F02); commercial policy (F13); country and industry studies of trade (F14); economic integration (F15); international investment (F21); international finance (F3); international macroeconomics (F4)
 10. Labor & Demographic Economics
 - demographic economics (J1); marriage (J12); fertility, child care, children, and youth (J13); economics of the elderly (J14); economics of gender (J16); labor force and employment (J21); human capital formation (J24); retirement policy (J26); agricultural labor market (J43); professional labor market (J44); public sector labor market (J45); trade union (J51); unemployment (J64); discrimination (J71)
 11. Law & Economics
 - regulation and business law (K2); labor law (K31); environmental, health, and safety law (K32); international law (K33); tax law (K34); litigation process (K41)
 12. Mathematical & Quantitative Methods
 - econometric and statistical methods (C1); econometric modeling (C5); mathematical methods and programming (C6); computational techniques (C63); input-output models (C67); computable general equilibrium models (C68); game and bargaining theory (C7)
 13. Money, Banking, and Finance
 - macroeconomics and monetary economics (E00); business cycles (E32); money and interest (E4); financial markets (e44); monetary policy (E52); central banks and their policies (E58)
 14. Natural Resources
 - renewable resource and conservation (Q2); nonrenewable resources and conservation (Q3); energy (Q4)
 15. Politics & Political Economy
 - politics; political economy (P26)
 16. Public Economics
 - structure and scope of government (H1); taxation, subsidies, and revenue (H2); optimal taxation (H21); tax incidence (H22); business taxes and subsidies (H25); tax evasion (H26); fiscal policy (H3); public goods (H4); government expenditures (H5); national budget, deficit, and debt (H6); state/local governments, intergovernmental relations (H7)
 17. Socialist Systems & Transitional Economies
 - socialist systems and transitional economies (P2); socialist enterprises and their transitions (P32); collectives, communes, agricultural institutions (P32); international linkages (P33); comparative economic systems (P5)
 18. Statistics, Data, and Surveys
 - data collection and data estimation (C8); statistical data and surveys

19. Textbooks

Vietnamese economics textbooks

20. Theses

theses and dissertations at doctoral, master, and phó tiến sĩ [candidat nauk] levels

21. Translation

translations; dictionaries and glossaries of technical terms

3.5. Accessibility & Availability

Our database is an attempt to promote the development of Vietnamese Economics by linking researchers in Vietnam with the rest of the outside world. Through the database, research work done both inside and outside Vietnam is brought to the attention of economists working in the same area of interest. In particular, researchers inside Vietnam now can have a timely bibliographic research tool which might not always be locally accessible. This would help keeping them abreast of development in the outside world. On the other hand, researchers outside Vietnam are also made aware of research activities and interests of their Vietnamese counterparts. The database also has a convenient online submission form from which users can contribute references including their own work..

Two bibliographies of the database are provided: a standard bibliography sorted by authors entitled VECONREF (References) and a companion subject bibliography entitled VECONSUB (Subject Bibliography). Both of them can be read online (or downloaded for leisure off-line reading) using popular browser software such as Netscape or Internet Explorer from the VECON web site. The standard HTML format documents at

<http://www.arts.uwaterloo.ca/~vecon/veconref/veconref.html>

<http://www.arts.uwaterloo.ca/~vecon/veconref/veconsub.html>

require users to have the VISCII font UHoài already installed in their computers for proper Vietnamese reading. Alternatively, the PDF format documents at

<http://www.arts.uwaterloo.ca/~vecon/veconref/veconref.pdf>

<http://www.arts.uwaterloo.ca/~vecon/veconref/veconsub.pdf>

have this font embedded and hence, require no font installation. An updated version of this paper in PDF format, if available, is also available at the same web site

<http://www.arts.uwaterloo.ca/~vecon/veconref/vecondoc.pdf>

3.6. Direction of the Literature

Even in its current developmental stage, the database can provide some indication of the direction of research in the field (i.e., somewhat similar to the concept of “concentration index” measure in Industrial Organization). For example, the August 2000 edition of the database contains 414 references distributed among 20 subjects (in decreasing order of frequency counts) as follows:¹⁴

¹⁴ These 414 original references together with 93 cross references (an item may be listed in more than one subject classification) give a final total count of 414+93 = 507 in the table.

<i>Subject Classifications</i>	<i>Count</i>	<i>%</i>
Socialist Systems & Transitional Economies	85	16.8%
Theses	45	8.9%
International Trade	41	8.1%
Agriculture & Rural Development	41	8.1%
Labor & Demographic Economics	33	6.5%
Statistics, Data, and Surveys	30	5.9%
General Economics	29	5.7%
Economic Development, Technological Change & Growth	25	4.9%
Health, Education, and Welfare	25	4.9%
Law & Economics	25	4.9%
Industrial Organization	20	3.9%
History & Economic History	19	3.7%
Translations	17	3.4%
Politics & Political Economy	16	3.2%
Mathematical & Quantitative Methods	13	2.6%
Money, Banking, and Finance	12	2.4%
Public Economics	11	2.2%
Environmental Economics	8	1.6%
Textbooks	8	1.6%
Natural Resources	4	0.8%
<i>Total</i>	<i>507</i>	<i>100.0%</i>

This table of distribution, though still very preliminary, indicates that the literature seems to focus on issues of socialist reform in transitional economies, international trade, agricultural and rural development. This research trend is probably fitting the current nature of Vietnam as a low-income agriculture-based transitional economy slowly working toward trading with the rest of the world. Dissertations and theses also have a high growth probably due to the sheer number of Vietnamese students coming out of the Dutch MA Programmes in Development Economics in Vietnam. We would expect that this trend will continue in response to more foreign assistance on capacity building.

Many other equally important subjects have very low representations in the database (e.g., environment and natural resource economics have less than 2% each). It is quite possible that references in these “unpopular” subjects do actually exist but have not been included in our database. We hope that as the project continues to evolve, the database will be able to reveal a pattern of research direction of the literature. This little piece of information will be extremely valuable for researchers and policy makers as they can now not only identify the strength and weakness of the literature but also design a remedial course of actions.

4. Concluding Remarks

Our research database initiative is an ongoing process with no end in sight. When we first conceived the idea of the project, we could find only a limited number of scattering references in Vietnamese Economics — probably only enough to fill a few pages. Since then, the database has grown steadily due to two important factors. Firstly, the literature itself has also experienced enormous growth from increased research interest in the field. Secondly, once the database has been made public on the Internet, researchers around the world have contributed to the database through tips, information, and personal references. We hope to be able to continually maintain this public service on our part along with grass-root participation by researchers around the world which will undoubtedly sustain our intellectual investment in the new field of Vietnamese Economics.

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